



**EduScience UK<sup>®</sup>**  
We Contribute To Future Education



# CHEMISTRY & LABWARE CATALOGUE

[www.eduscience.co.uk](http://www.eduscience.co.uk)  
[www.eduscienceuk.com](http://www.eduscienceuk.com)



## Dear Valued Customers

I would like to Thank you for helping EduScience UK Ltd Company in accomplishing its mission: to contribute in future education.

We strive to provide educators worldwide the best innovative products, services and solutions.

We have added in this catalogue over 4600 products including

our latest STEAM and Science Kits that has been developed to adapt the different curriculum needs along with teaching manuals that make hands-on easy for students so they are engaged and have fun doing science experiments in the same time

In addition to our catalogue we have enhanced Eduscienceuk website so you can now order most of our products easily at any time and with flexible payments methods

I'd like to thank you for helping us improving our self so we hopefully can satisfy your needs and we wish to have your regular feedback which defiantly keep our team working on enhancing our self to serve you better.

**Sincerely**  
**EduScience UK Ltd**





**EduScience UK<sup>®</sup>**  
We Contribute To Future Education

## “COMPLETE SOLUTIONS OF EDUCATIONAL SUPPLIES”

EduScience is a UK based science equipment's Manufacturer, partnered with Reputed Science Education Factories one of the oldest established companies in the field of science education. It was foremost in the development of the Nuffield Science Project acting as consultants to British Government to revolutionize science teaching across the world.

EduScience provide the highest quality and support service possible to meet today's demands from science education.

- Design, bringing new equipment to school's laboratories
- Manufacture, state of the art manufacturing
- Quality and Safety, all products meet or exceed all EU and international regulations on safety, quality and performance
- Curriculum Relevant, focused on products precisely matched to your curriculum requirements
- Technical Support, through advice, teacher and technician training and field support in your school.

### More than a supplier of Science Education Supplies

#### Technical Expertise

Our team consists of specialists in Physics, Chemist and Biology as well as ICT and Math

As a designer and manufacturer, we understand the equipment you have in your lab.

We can provide advice and experimental notes, spare parts, repair and calibration.

#### Specialist in the Field

Everything one needs for teaching science including laboratory design and furniture.

#### Confidence Builder

Our teaching notes help with lesson planning and our support team is on hand to build teacher confidence and remove the feeling of isolation for specialist and non-specialist teachers.

#### Apparatus matched precisely to your Curriculum

Spend your budget wisely, buy purchasing relevant equipment. We match apparatus to your practical lesson requirements exactly to your curriculum needs.

#### International Regulations

Our rigorous Quality Assurance policy means that all of our products usually exceed those in place throughout the world.

#### Product Development

A progressive development programmer ensures that science teaching keeps in step with progress to provide your students with the experience of higher education, industry or research.

**EduScience with Its heritage has always been about progressive design and development since the 1960s. and continues today offering curriculum development to Governments around the world and produces bespoke equipment to meet their specific needs. You can tap into this vast experience and knowledge.**





## PRODUCTS

From Analogue Meter to Zoological specimens, a true comprehensive provider of everything you could need for your lab whether an established or brand new facility.

### STEAM

- Science, specialist in integrating science into Technology, Engineering and Math
- Technology, from design through to robotics, data logging and cross curricula links
- Engineering, the latest technology from 3D printing to workshop resources
- Math, designed by educationalist and maths experts with software and practical lessons

### STEAM KITS

For teachers with busy schedules EduScience STEM kits help lesson planning and preparation leaving you more time to inspire your students with exciting resources.



### ROBOTICS

The buzz word around the world today, is Robotics, even if students are not destined to work in the field a knowledge of robotics is essential for an understanding of industry and even domestic applications

EduScience robotic kits help students to develop problem solving ability and logical thinking skills while learning about robotics and science principles.

### SCIENCE DATA LOGGING AND SENSORS

Our innovative new data logging system using Data logger and direct USB sensors and our specialized software for data capture and analysis making science much more easy and joyful.



### PRACTICAL PHYSICS

Take the fear out of leading practical physics lessons. Using EduScience Kits or teaching systems provides easy to prepare practical lessons in your lab which inspire the students and enhance their learning experience.

EduScience Kits or teaching systems cover every area in physics

Electricity, Electrostatics, Optics, Energy, Alternative Energy, Atomic and Nuclear, Forces etc.

### CHEMISTRY LAB RESOURCES

EduScience offer complete range of chemistry lab equipment's including glassware, Chemicals and disposables we keep many of those products in our store to cater the immediate needs.

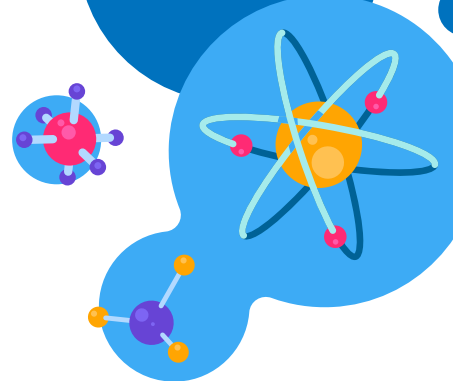




## BIOLOGY LAB RESOURCES

EduScience have produced a complete comprehensive range of resources for practical work for biology students from elementary to high school to first year teaching labs in universities.

As experts in the field of microscopy we can offer training for teachers and technicians in the application for microscopes and maintenance



## ENVIRONMENTAL AND FORENSIC SCIENCE.

Environmental science along with the study of forensics grips the imagination and curiosity of students across all age ranges.

EduScience Kits and models support student's learning of principles, concepts and methodology. of these skills are transferable within current curricula. Our Kits, excite and inspire as well as support teachers in lesson planning and reducing technical time in preparation and lesson management.



## EDUCATIONAL AND LABORATORY FURNITURE

EduScience produce complete range of laboratory and class room furniture's in standard and custom made, we promise to provide you comprehensive furnishing solutions that convert your school into a place where everyone feels comfortable. It's also our challenge to remain committed to setting new standards in quality, design, and service.

## PRIMARY EDUCATION SCIENCE AND MATH

EduScience aim is to support teachers by providing unique, high-quality educational tools that enhance instruction and provide engaging learning experiences that meet children's individual needs. EduScience versatile products include play and learning activity sets, manipulatives and games that build foundational skills in all subject areas through exploration, imagination and fun.



## SMART MATERIAL AND FUN SCIENCE

EduScience have been working with teachers and educational specialists to deliver playful learning experiences that bring subjects to life in the classroom and make learning fun and impactful. We have a wide range of physical and digital educational resources that encourage students to think creatively, reason systematically and release their potential to shape their own future.



## Contact & Technical Support

### Our Team is here to Help!

If you have questions about orders, products, services, or would like to place an order by phone, or email, Customer Service is ready to assist you.

- Phone: +44 (0)203 8685740 (8am to 5pm, ET, Monday-Friday)
- Email: [Services@eduscienceuk.com](mailto:Services@eduscienceuk.com)

### Quotes and Contracts

Forward your quotation requests to the attention of our Quotations Department via mail, or email. You can speed up the quote process by emailing your inquiry list to our Quotations Department. Or through our contact form in the website or mail, please include a contact name, your complete address, and your fax and telephone numbers, products name, required qty and our product number

- Phone: +44 (0)203 8685740
- Email: [sales@eduscienceuk.com](mailto:sales@eduscienceuk.com)

### Quotations Department

EduScience uk Ltd Company  
27, Kestrel Park,  
Springwood Industrial Estate,  
Braintree, Essex,  
United Kingdom



### International Sales

For customers outside the United Kingdom, forward your quotation requests to the attention of our International Quotations Department via mail, fax, or email. or through our contact form in the website, please include a contact name, your complete address, and your fax and telephone numbers, products name, required qty and our product number

For more detailed information about International ordering, please read the following international ordering information

- Phone: +44 (0)203 8685740
- Email: [intsales@eduscienceuk.com](mailto:intsales@eduscienceuk.com)
- Mail: 25 North Row, London, Greater London, W1K 6DJ, United Kingdom



### International Quotations Department

EduScience uk Ltd Company  
27, Kestrel Park,  
Springwood Industrial Estate,  
Braintree, Essex,  
United Kingdom



### Emergencies

In the event of a serious spill, contamination, ingestion, or other emergency situations,  
Please call +44 7796 264499 (8.30am to 5pm, ET, Monday-Friday).

## International Ordering

### EduScience Serves the World!

For over 60 years, EduScience UK Ltd Company has served the needs of educators and distributors in more than 70 countries worldwide. This level of experience and world-class support means that EduScience understands your unique needs.

### Request a Quotation Quickly and Easily

1. Please send us your inquiry by email to [Salesint@eduscienceuk.com](mailto:Salesint@eduscienceuk.com)
  2. Make sure to put your complete contact information
  3. Please indicate your inquired products qty and unit
  4. Please indicate your bid closing date
- . Please allow up to 2 business days for us to review your request and get in touch with you. You may also provide inquiry details to us via contact us form in our online. Platform

### Our International Sales Team is ready to help you

#### Middle East and Africa

Mustafa Zidan MENA Sales Manager

- Phone: +971506565509
- Email: [mz@eduscienceuk.com](mailto:mz@eduscienceuk.com)
- Phone: +9714 2509955
- P.O. Box 124684, Dubai, UAE



#### Europe, South Africa, Asia and Pacific

Anthony Edwards, International Sales Director

- Phone: +44 7709 410989
- Email: [anthony@eduscienceuk.com](mailto:anthony@eduscienceuk.com)

Rachael, EUAP Sales Specialist

- Email: [samantha@eduscienceuk.com](mailto:samantha@eduscienceuk.com)
- Phone: +44 791 9539660

Braintree, Essex-United kingdom

### Does EduScience Have a Distributor in Your Country?

1. If you would like to be referred to a EduScience distributor in your country, or if you are interested in becoming a distributor for EduScience, please send an email to [Salesint@eduscienceuk.com](mailto:Salesint@eduscienceuk.com)

### Special Considerations about Placing International Orders

Please be aware that on all international quotations, shipping charges and product specific fees may apply. Because of the complexity of international orders, EduScience's experienced International Sales team can assist you with the quote and order process, and can advise you on products that require special requirements prior to being exported:

- UK Fish & Wildlife
- Hazardous materials
- Agricultural products
- Voltage requirements

Note: Custom's related "taxes and duties" are your responsibility and are not paid for by EduScience UK Ltd Company.

## Payment Options

### Purchase Orders & Net 30 Accounts

If your school or organization in the UK has Net 30 payment terms with EduScience, you will be able to enter a Purchase Order during Checkout. If you are not sure if you have an account, please Contact us [accounts@eduscienceuk.com](mailto:accounts@eduscienceuk.com) (8am - 5pm, ET, Mon-Fri). If you are a new customer and wish to apply for credit, please call our accounts and fill our Credit Application form.

### Credit Card Payments

All online customers may purchase securely with a credit or purchasing card during Checkout. When you place an order, EduScience UK Ltd Company authorizes your credit card to make sure sufficient credit is available. A hold is placed on funds equal to your order total until the order is shipped. When you shop at [EduScience.com](http://EduScience.com), you can rest assured that you or your institution's credit/purchasing card and personal information is completely safe and secure. We currently take the following credit cards on our website:

- Master Card
- Visa

### International Letter of credit Payments

When goods value above 10,000 USD then payments of goods can be made by letter of credit we would like to ask that particular attention to be given to the following when instructing your bankers. Adherence to this point will avoid delays or inconvenience and the expenses of amending letters of credit

The credit must be:

In favor of Edu Science uk  
Irrevocable and Confirmed  
Payable at 100% at sight

For the full value of the order

Claused to allow partial shipments

Claused to all transshipment

Payable against the usual documents evidencing shipments from agreed Port/Airport

Allowing 21 days from shipments date for personation of documents



### Prepayments

To prepay send Telex transfer or money order with your purchase order, call us for exact shipping charges in advance or add your courier account number.

All payment to be in USD to Edu Science UK bank account.

## Shipping Information

### Shipping Methods for Online Orders

We offer three convenient shipping methods for online orders. Please note that many products can only ship using limited shipping methods, such as living/perishable items, which can only ship Second Day or Overnight. Please see details lower on this page.

Standard delivery—Orders arrive in 15-20 business days.

### Shipping Rates and Fees

Shipping rates and handling fees are based on the type of purchasing you are doing. See Shipping Information for Special Item Types for details.

All Customers - our sales specialist will calculate your freight and handling charges based on the weight of the items in your order and the

distance to your shipping destination.

Schools, Institutions, and Organizations - for qualified customers, our website will calculate your freight & handling charges based on the weight of the items in your order, the destination/distance, and your freight terms and discounts.

During Checkout, you will see a Freight & Handling total for your entire order. You must be logged in and your User Profile must be associated to your school in order to get the appropriate freight terms and applicable discounts.

### Shipping Information for Special Item Types

#### Hazardous Materials

The shipment of many hazardous items is regulated by the UK Department of Transportation. Items subject to regulation are identified by one of three hazardous material icons on our website. Hazardous materials shipments incur an additional transportation fee which is charged by the carrier.

Orders for hazardous materials (and kits and sets containing these items) can only be accepted from schools, research institutions, medical facilities, and businesses. Hazardous materials cannot be shipped to individuals, homeschoolers, and other customers, but there is often a safe item that can be substituted.

#### Drop-Shipped Items

Some of our items are drop-shipped directly from the manufacturer. Drop-shipped items vary in their shipping timeframes and this information is available on the item's detail page—such as "This item ships from the manufacturer and will arrive in 4-6 weeks". These items are also separated from in-stock products on the Shipping Methods step of Checkout.

#### Backordered Items

When an item is not in stock, but we have more on the way, you can backorder the item. Backorder information along with the expected availability date is provided at the order confirmation stage

#### The EduScience Pledge: 100% Satisfaction Guarantee

All of our products are unconditionally guaranteed. If for any reason you are not satisfied with any item, you may return it for a replacement, a refund, or credit. It's that simple.

#### Return an Item

- Contact Customer Service at + 44 1376340506 or [info@eduscienceuk.com](mailto:info@eduscienceuk.com) (8 am to 5 pm, ET, Monday–Friday).
- Have your purchase order number and EduScience Performance invoice/confirmed order number available.

A Customer Service Representative will give you a Return Authorization Number and any additional instructions. The number allows us to quickly credit your account or credit card once the item has been returned and processed.

#### Items not in Resalable Condition

Items not in resalable condition cannot be returned unless damaged or defective. Items held more than 1 month and returned in resalable condition are subject to Preapproval and a 25% restocking fee.

#### Drop-Shipped Items

For drop-shipped items (such as furniture or equipment), a 25% restocking fee will apply if you return the product for any reason other than shipping damage or manufacturing defect. You are responsible for shipping the product back to the manufacturer in resalable condition and in the original packing



# SERVICES

## **TEACHER AND TECHNICIAN TRAINING**

We provide comprehensive teacher training program and lab technicians with hands on experiments

## **CURRICULUM DEVELOPMENTS**

We work with Ministries of education worldwide to identify the best bespoke scenario for developing science, mathematics and technology education curriculum for their country, to support national aims and objectives. And introduce STEM concepts that complement the current curriculum

## **MICROSCOPE SERVICING**

Our experienced engineers are able to service your microscopes.

## **BALANCE SERVICING**

Our experienced engineers will service your balances and ensure that they are accurately calibrated.

## **PROJECTS HANDLING**

We have a wealth of expertise identifying your needs and according to your curriculum requirements, packing, delivering with our own transport, and helping you unpack and check off your new laboratory equipment.







## **HAZARDOUS CHEMICAL WASTE DISPOSAL**

We employ a specialist team of chemists to pack and label hazardous chemicals ready for removal. Our trained ADR drivers will then transport to a registered waste station, and we provide full documentation for your peace of mind.

## **CLASSROOM AND LABORATORY REFIT**

We use a professional furniture manufacturing company to assess your needs and design a tailored solution, using your chosen materials, including modern and innovative designs



	Chemistry	8
	Safety & Protection	48
	Chemicals	70
	Lab Ware	138
	Furniture	300
	Index	332

# CATEGORIES QUICK INDEX

# CHEMISTRY



EduScience UK<sup>®</sup>



[www.eduscienceuk.com](http://www.eduscienceuk.com)

**We Contribute  
To Future Education**

# CHEMISTRY

- Data Logging & Sensors
- Materials & Its Properties
- AP Chemistry
- Chromatography
- Microchemistry
- Molecular Models
- Periodic Table & Resources
- Gas Preparation Analysis
- Jointed Glassware



**Call Us Today +44 (0)203 8685740**



## CMES Data Logger

is a modern advanced graphic data-logger. It is a handheld Linux device equipped with two processors and 8 GB memory. Works standalone and with Windows and MAC computers.

Display: 5" high-resolution capacitive colour touch screen

Resolution: 12-bit

Maximum sampling rate: 1 MHz

Sensor inputs: Four analogue BT inputs, two digital BT inputs

Built-in: Sound sensor, 3-axis

Accelerometer (2g, 4g, 8 g)

Wireless connectivity: Wi-Fi and Blue-tooth®

Computer connection: USB mini port

USB port: Full USB for USB peripherals

Power: Rechargeable battery, charging via USB from computer or via power adapter

Software on board: Coach Linux

Software on computer: Coach (Windows and MAC)

Includes: Power adapter, USB cable and User's Guide.

The dedicated desktop applications, installed on CMES, offer tools for collecting data, managing user files, setting up the device and its wireless connection, browsing the web, watching video files, playing audio files, etc. All applications can be easily updated via the CMES Update server available via a Wi-Fi connection.

The powerful Coach Application, installed on CMES, offers live sensor data displays, real-time graphing, tools for data processing and possibilities to create new or open ready-to-go student activities, enriched with texts, images and web-pages. Coach 7 and Coach 7 Lite support measurements with CMES.

During such measurement CMES is connected to the computer via a USB port or communicates via a Wi-Fi connection, and is controlled by Coach running on the computer. The collected data are transferred in real-time to the computer and the measurement

can be followed directly on the computer screen. By using wireless connectivity and the VNC protocol the CMES screen can be remotely viewed and controlled from any computer or mobile device connected to the same network.



ESD50000

## Coach 7 Desktop

Our Coach software is the most versatile and complete software for STEM Education.

Coach integrates ICT tools, which resemble technologies used by professional scientists and facilitate an inquiry-based approach to education. By collecting high-quality, real-time data, constructing and using models, using simulations and visualizations, comparing results from experiments and models, students can be actively involved in authentic learning activities.

Coach 7 is the successor of Coach 6 and offers new features and enhancements of our unique and powerful environment.

5-years Single User License

ESD50013

## Colorimeter Sensor

The Colorimeter BT29i measures the amount of light transmitted through a sample solution. It has four LED light sources emitting light of different wavelengths:

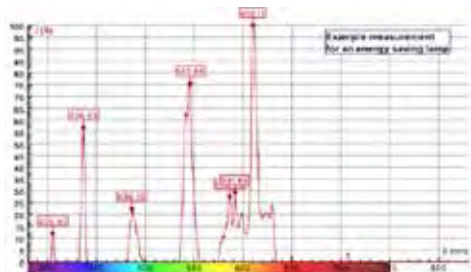
Violet 430 nm, blue 470 nm, green 565 nm and red 635 nm.

Range: 90 .. 10 %T Resolution (12-bit): 0.025 %T Includes: 10 plastic cuvette with caps.

Can be used to:

- Investigate application of Beer's law e.g.-crystal violet or Copper Sulphate,
- Determine unknown concentrations,
- Measure reaction rate, reaction
- Order or reaction equilibrium,
- Determine biological molecules e.g. sugars, protein, vitamins..

ESD50078





### Conductivity Sensor

The Conductivity sensor BT27i measures the ability of a solution to conduct an electric current between two electrodes. The Conductivity sensor consists of a conductivity electrode and an amplifier. The sensor has three measurement ranges, which can be selected using a switch.

Ranges: 0 .. 200  $\mu\text{S}$ , 0 .. 2000  $\mu\text{S}$ , 0 .. 20000  $\mu\text{S}$  Resolution (12-bit): 0.082 $\mu\text{S}$ , 0.82 $\mu\text{S}$ , 8.2  $\mu\text{S}$

Can be used to:

- Monitor the rate of reaction in chemical reactions,
- Monitor changes in conductivity in aquatic systems,
- Perform conductivity titration,
- Find the rate at which ionic species diffuse through membranes..

ESD50079



### Light Sensor \*

The Light sensor 0142i measures light intensities in the range between 0 and 200 lux. It consists of a photo-transistor, which receives light through a glass fibre. Because of its range the sensor is suitable for measurements in normal indoor situations. The sensor can also be used as a light gate.

Range: 0 .. 200 lux Resolution (12-bit): 0.05 lux

Can be used to:

- Verify inverse square law,
- Monitor changes in light caused by a chemical reaction,
- Investigate light reflection and absorption,
- Investigate light interference patterns..

ESD50080



### Light Sensor \*

The low-cost Light sensor 0513 measures light intensity and is sensitive to the visible light spectrum and also infrared. Because

of its range the sensor is suitable for measurements in normal indoor situations. Range: 0.1 .. 10 W/m<sup>2</sup>

Can be used to:

- Verify inverse square law,
- Monitor change in light caused by a chemical reaction,
- Measure the rapid changes of the light intensity.

ESD50081



### Light Sensor with three ranges

The Light sensor BT50i measures light intensity and has three measurement ranges, which can be selected using a switch. Because of its ranges the sensor is suitable as well for indoor as for outdoor measurements. Full sun illumination is within the range of the sensor. The spectral response of the sensor approximates the response of the human eye.

Ranges: 0 .. 1500 lux, 0 .. 15000 lux, and 0 .. 150000 lux

Resolution (12-bit): 0.37 lux, 3.7 lux, 37 lux

Can be used to:

- Verify inverse square law,
- Investigate light reflection and absorption,
- Study solar energy,
- Monitor monitoring sunrise and sunset times.

ESD50082



### ORP Sensor

The ORP sensor BT57i measures the ability of a solution to act as an oxidizing or reducing agent. The sensor consists of an ORP electrode and an amplifier.

Range: -450 mV .. 1100 mV

Resolution (12-bit): 0.5 mV

ORB electrode: sealed, gel-filled, epoxy body,

Ag/AgCl reference

Temperature range: 0 - 600C

Can be used to:

- Measure the oxidizing ability of chlorine in swimming pools,
- Investigate red-ox titration to determine the equivalence point in an oxidation reduction reactions.

ESD50083

NOTE : all \* Marked sensors need a sensor cable (IEEE1394-BT)ESP50250, which has to be purchased separate.





### Thermocouple \*

The Thermocouple sensor 0135i measures temperatures in two ranges, which can be selected using the switch. The sensor uses a thermocouple type K, which consists of Chromega and Alomega wires that are welded together to form a measuring junction.

Range: -200.. 1300 °C , -20 .. 110 °C

Resolution (12-bit): 0.39 °C, 0.035 °C

Can be used to:

- Measure the temperature inside a Bunsen burner flame or candles,
- Determine the melting point of copper, bismuth, or other solids,
- Measure temperature in specific heat experiments.

ESD50039



### Temperature Sensor \*

This Temperature sensor BT01 is a low-cost, general-purpose temperature sensor that can be used to measure temperature in the range of -40°C to 140°C, in liquids (water, mild acidic solutions) and air. The sensing element of the sensor is an NTC thermistor, which is positioned in a stainless steel tube. The thermistor is a variable resistor whose resistance decreases non-linearly with increasing temperature.

Range: -20 °C .. 140 °C

Accuracy: 2°C at -40°C, 0.6 at 30°C, 1.8°C at 140°C

Can be used to:

- Monitor indoor and outdoor temperatures,
- Monitor freezing and boiling water,
- Investigate the temperature during endothermic and exothermic reactions,
- Investigate evaporation

ESD50036



### Temperature Sensor

The Temperature sensor BT84i measures temperature and temperature differences in the range between -18 °C to 110 °C. This sensor uses the solid-state temperature transducer, whose output is linearly proportional to the temperature. The transducer is positioned in the point of a stainless steel tube. In liquids the response of the temperature sensor is quite fast (in between 1.3 and 2.0 s).

Range: -20 °C to 110 °C

Resolution (12-bit): 0.07 °C

Can be used to:

- Monitor indoor and outdoor temperatures,
- Monitor freezing and boiling water,
- Investigate the temperature during endothermic and exothermic reactions,
- Investigate evaporation.

ESD50086



### Salinity Sensor

The Salinity sensor BT78i measures the salinity of a solution, which indicates the amount of all the salts dissolved in water. The sensor consists of a Salinity electrode and an amplifier.

Range: 0 .. 50 ppt

Resolution (12-bit): 0.02 ppt

Can be used to:

- Measure of salinity of water sources,
- Measure the change in salinity of salt-water as the water evaporates,
- Monitor the rate of reaction in a chemical reaction.

ESD50089



### Turbidity sensor

The Turbidity sensor BT88i measures the turbidity of water samples in the range between 0 ... 200 NTU. Range: 0 .. 200 NTU

Resolution (12-bit): 0.2 NTU

Includes: one empty cuvette and one cuvette containing 100 NTU Stabl Cal Formalin Standard, which is used to calibrate the sensor.

Can be used to:

- Measure turbidity of a water sample from various locations,
- Determine the rate of settling of a sample,
- Measure the formation of a precipitate.

ESD50090

NOTE : all \* Marked sensors need a sensor cable (IEEE1394-BT)ESP50250, which has to be purchased separate.







### PH sensor

The pH sensor BT61i is a general-purpose pH measurement system that allows measuring the degree of acidity/pH value. The sensor consists of a pH amplifier and pH electrode. The pH Electrode is not delivered with the pH sensor and has to be purchased separately (Order Code 031).

Range: 0.. 14 pH

Resolution (12-bit): 0.005 pH

Can be used to:

- Measure pH values of different acids and bases,
- Monitor pH in acid-base titration experiments,
- Monitor pH during chemical reactions,
- Investigate of water quality in streams and lakes.

ESD50038



### Pressure Sensor

The Pressure sensor BT66i is designed to measure absolute gas pressure. The pressure is measured via a pressure valve, which is located on the side of the box. The sensor has two measurement ranges, which can be selected using a switch.

Range: 0 .. 700 k Pa, 0 .. 130 k Pa

Resolution (12-bit): 0.2 k Pa, 0.04 k Pa Includes: a plastic 20-ml syringe with Lu-er lock, two plastic tubes (5 cm and 45 cm long), a three-way valve with Lu er-lock connectors, two Lu er-lock connectors.

Can be used to:

- Measure pressure changes in gas-law experiments, Boyle's and Gay-Lussac's laws,
- Measure vapour pressure of liquids,
- Measure air pressure for weather studies.

ESD50088



### Photo-gate

The Photo-gate BT63i is a traditional photo-gate, which consists of a light gate allowing detecting objects passing between the photo-gate arms. In this light gate, a narrow infrared beam is directed to a fast infrared detector, which produces very accurate signals for timing. The external (laser) gate mode allows detecting objects passing outside the photo gate arms. Includes: a pulley attachment and a steel support rod.

The EduScience Drop counter can be attached to the photo gate for titration experiments (not supplied has to be purchased separately Order Code 0662drop). Up to five photo gates can be chained in a daisy-chain configuration and connected to a single interface input (IEEE1394 cable not supplied, this cable has to be ordered separately Order Code 07662).

Can be used to:

- Count events,
- Measure the speed of a moving (rolling) object (with the pulley attachment),
- Measure volume in titration experiments (with the drop counter attachment),
- Study pendulum periods,
- Measure the acceleration due to gravity (e.g. by using a picket fence).

ESD50091



### Drop Counter Attachment for photo-gate

Drop Counter can be attached to photo-gates 0662i, BT63i and ML54f and can be used to record volume (counting drops) in titration experiments. Includes: a drop dispenser, two valves and a tip.

ESD50092



### Angle Sensor \*

The Angle sensor 013i is a potentiometer, which has a pulley to attach a string to. The sensor is suitable for detecting angle changes and (small) displacements.

Range: 270° (turn), 140 mm (displacement) Resolution (12-bit): 0.07°, 0.03 mm

Can be used to:

- Study a pendulum period,
- Measure small displacements,
- Investigate harmonic motion.

ESD50077

NOTE : all \* Marked sensors need a sensor cable (IEEE1394-BT)ESP50250, which has to be purchased separate.





### Basic Chemistry Sensors Bundle Kit

- Angle (position) Sensor 013i
- Conductivity Sensor BT27i
- Light Sensor BT50i
- pH Sensor BT61i and Electrode 031
- Photo-gate BT63i with Drop Counter 0662drop or Step-motor Burette 061 (suitable only for CoachLab II+)
- Pressure Sensor BT66i
- Salinity Sensor BT78i
- 2 x Temperature Sensor BT01
- 4 Sensor Cables BTsc\_4

ESD50093



### Chemistry Sensors Extension Bundle Kit

- Colorimeter BT29i
- ORP sensor BT57i
- Thermocouple 0135i
- Turbidity sensor BT88i

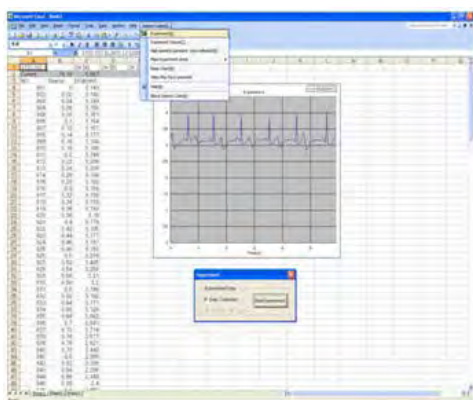
ESD50094



## Xlogger system introduction

Xlogger is an innovative new data logging system using direct USB sensors & Excel\* for data capture and analysis. Our sensors plug straight into USB ports on any Windows computer. No dedicated software program just Microsoft Excel\*

Data is logged directly into Excel\* and graphed automatically  
 Simple toolbar commands control everything  
 Completely intuitive - start logging straight away  
 Students work in the familiar Excel\* environment  
 All the power of Excel\* for analysing data is immediately available  
 All the standard sensors with new ones being developed  
 Simply plug them in and start logging (no calibration needed)  
 Robust construction and encapsulated leads



## ES Data-logging Software

Xlogger software is a specially designed Add-In to Excel\* that recognises the sensors you have plugged in, understands the data being transmitted and allows you to manage the data entering the computer. Once it has been captured the data is 'standard' Excel\* data and can be analysed as required.

For full computer software and hardware requirements please visit [www.xlogger.com](http://www.xlogger.com)

Please 'add' this item to your basket and once you checkout and we receive the order you will be emailed a copy of the software.

N.B. Purchase of new or existing Xlogger products is required.

£80.00 Free with XL Logger Sensors.

ESD50014



### USB Light Sensor

USB Light Sensor, Measuring Range: 0 - 15,000 Lux

ESD50186



### USB PH Sensor

Xlogger PH sensor with probe

ESD50194



### USB Oxygen Sensor

Xlogger Oxygen Sensor.  
 Range: 0 - 100% Oxygen

ESD50184

### USB Turbidity Sensor

Xlogger Turbidity Sensor.  
 Range: 0-200 NTU  
 Accuracy:  $\pm 2$ NTU under 25NTU,  $\pm 5\%$  over 25NTU

ESD50189





**USB Barometer Sensor**

Xillogger Barometer.  
Range: 0 to +2068 hPa (Mbar)  
Resolution: 0.6 hPa

ESD50188

**USB Temperature Sensor**

USB Temperature Sensor

ESD50185

**PH electrode**

The pH electrode 031 is a gel-filled Ag-AgCl combination-electrode in a plastic tube. It has a coax cable, with a BNC connector. It is supplied in a bottle filled with a protective solution. The electrode cannot be refilled.

ESD50242

**BT-BT Extension cable (analogue)**

A 5-m long cable for extending the length of analogue BT sensor cables.

ESD50247

**Adapter 4mm - BT**

For connecting sensors with 4-mm plugs to interfaces with BT inputs such as CMES,

ESD50248

**Data-Logger stand**

Plastic stand for the CMES data-logger.

ESD50249

**BT - IEEE1394 cable**

The BT - IEEE1394 sensor cable (1.5 m length) is used for BT sensors, which are equipped with the IEEE1394 socket. These sensor cables are sold per piece (BTsc\_1) and in packages of four (BTsc\_4).

ESD50250



EduScience Wireless Sensors can be used to measure without an interface. They are simple, user-friendly, and offer more mobility and flexibility. They can be used anywhere without the need for power or wired connections and are suitable for a wide range of student experiments.

**Connectivity:** The sensors operate wirelessly via Bluetooth or wired via USB and can be used with a variety of Devices: computers, Chromebooks and mobile devices.

**Display:** The sensors are equipped with a color OLED screen which displays the battery level and the measured sensor value. This unique feature makes the sensors suitable for use as independent measuring devices.

**Battery:** The sensors have a large battery capacity and a smart way to save power by automatically turning off when they're not used. They can be used an average of 12 hours without needing to be charged. work with all platforms on which the ES Data logging Coach software works.

### Wireless Temperature Sensor

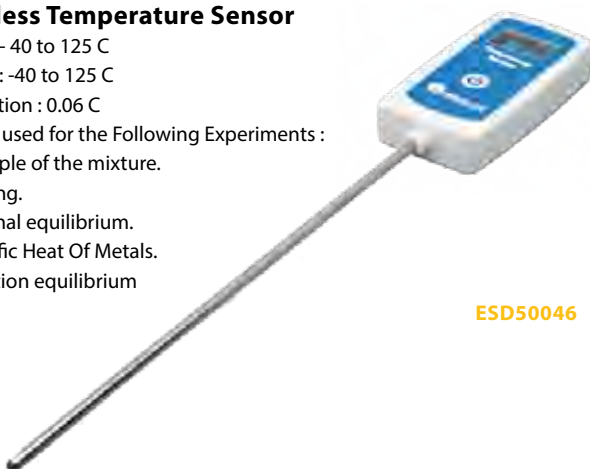
Range:- 40 to 125 C

Range : -40 to 125 C

Resolution : 0.06 C

can be used for the Following Experiments :

- Principle of the mixture.
- Cooling.
- Thermal equilibrium.
- Specific Heat Of Metals.
- Radiation equilibrium



ESD50046

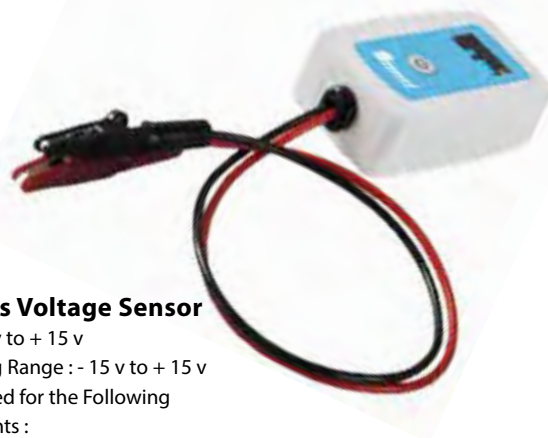
### Wireless Voltage Sensor

Range:- 5v to + 15 v

Measuring Range : - 15 v to + 15 v

can be used for the Following Experiments :

- Ohm's law (Relationship between voltage and current)
- Battery charge And discharge
- Series/Parallel connection of resistance
- The voltage of a solar cell



ESD50162



### Wireless Current Sensor

Range: - 3.0~+3.0 A

Resolution: 0.5mA The measuring principle of this «Wireless Current Sensor» is that a wire with a unique resistance value is measured using a voltage proportional to the current according to Ohm's law. It can be used for Ohm's law experiment with voltage sensor or for magnetic resistance test of electric resistance or current and since it is a wireless sensor, no connecting cable is needed. Experiment list Ohm's law (relationship between voltage and current) Charge and discharge of battery Voltage of solar cell Making a coin battery Resistance depending on the length and cross-sectional area of the sharp core

ESD50163

### Wireless Gas Pressure Sensor

Range:-1000~+3000hPa

Resolution:0.244 hPa

Wireless gas pressure sensor» measures relative values to ambient pressure. When measuring pressure, it converts to an intermediate form, such as a displacement, which converts the displacement into an electrical output, such as a voltage or current. This wireless sensor does not require a separate cable so that can be used easily in complex experiment environments. Also, it is possible to connect up to 4 sensors at same time, so you can use it with other kinds of sensors together.

- Experiment list ; Boyle's Law ; Cloud creation principle
- Reaction rate according to acid concentration
- Solubility of Gas with Temperature



ESD50103





Range: 0~14 pH

Resolution: 0.001 pH

Wireless pH sensor is a sensor that measures hydrogen ion concentration. It is a principle to determine the pH value from the potential difference between the glass electrode and the reference electrode with two standard solutions that know the pH value.

The Science Cube Wireless pH Sensor does not require a separate connection cable, so it can be easily used in complex experimental environments such as monitoring pH change during neutralization of acid-base, chemical reaction and checking pH in a water tank during photosynthesis.

You can use this sensor for investigation of acid rain and water quality as well. Experiment

list Neutralization

PH measurement of various solutions

ESD50098



### Wireless pH with Glass Body (100°C)

Range : 0~14 pH

Resolution: 0.001 pH

Wireless pH sensor is a sensor that measures hydrogen ion concentration. It is a principle to determine the pH value from the potential difference between the glass electrode and the reference electrode with two standard solutions that know the pH value.

The Science Cube Wireless pH Sensor does not require a separate connection cable, so it can be easily used in complex experimental environments such as monitoring pH change during neutralization of acid-base, chemical reaction and checking pH in a water tank during photosynthesis.

You can use this sensor for investigation of acid rain and water quality as well. Experiment

list Neutralization

PH measurement of various solutions

ESD50098GS



### Wireless Force & Acceleration

Sensor Range : -80 to 80 N

can be used for the Following

Experiments :

- Hook's Law

- Frictional force

- The synthesis of two forces

Action and reaction , - The law of

Inertia The principle of a lever

Impact and momentum ,

Weight in the water (Buoyant force)

ESD50170



### Wireless Conductivity Sensor

Range: 0~4 20:000 uS/cm

Resolution: 0.3 uS/cm

The wireless conductivity sensor can measure the conductivity of a solution or the total ion concentration of an aqueous sample.

Conductivity measurement can directly infer the super ion concentration of the sample, even if the specific ion is unknown during the environmental test of the aqueous sample.

Experiment list

Significance of cell division

Electrolytes and non-electrolytes

Neutralization reaction

ESD50099







### Wireless CO2 Gas Sensor

Range: 0~5.000 ppm

Resolution: 2.44 ppm

The wireless CO sensor can measure carbon dioxide in the air or in confined spaces such as botanical gardens and animal kennels. In addition, it is a sensor that can measure the amount of carbon dioxide produced by respiration of small creatures such as crickets by using an experimental tool such as an Erlenmeyer flask. Experiment list Yeast respiration photosynthesis Respiratory rate as a function of temperature Metabolic rate of insects according to temperature Changes in citric acid and sodium bicarbonate

ESD50051



### Wireless ORP

(Oxygen Reduction Probe) Sensor

Range: -450 ~41,000mV

Resolution: 0.5mV

Wireless ORP sensor ORP sensor is a test device that measures the ratio of oxidation (loss of electrons) and reduction (gain of electrons) of dissolved substances in solution.

The unit is m, and it can be measured together with the pH value of a solution.

Experiment list :Measurement of redox degree  
Transformation of Coke

ESD50101



### Wireless Oxygen Gas Sensor

Range: 0 ~ 25%

Resolution: 0.01%

The wireless oxygen sensor is a sensor that accurately measures the amount of oxygen in the air or in an enclosed space,

The wide range enables any experiment or measurement, and can measure atmospheric air along with carbon dioxide,

Experiment list

Photosynthesis

Plant oxygen

ESD50049



### Wireless Fine Particles Sensor

Range :0~ 500 min

Resolution: 1 am

The wireless fine dust sensor can measure fine dust in the air and simultaneously measure fine dust (10um) and ultrafine dust (2.5um).

Experiment list

Measure whether fine dust is generated when using a gas stove

Measurement of fine dust in the air

Measuring the effect of air purifying plants

Measurement of fine dust according to location

ESD50055



### Wireless Electrode Amplifier Sensor

ESD50166





## Wireless B-Differential Gas Pressure Sensor Range: -4650 ~ 650 hPa

Resolution: 0.355 hPa

Wireless pressure sensor B has a narrower range than pressure sensor A. It can measure pressure more accurately, has excellent resolution and is used in chemical experiments where a small amount of gas is generated.

Experiment list

Decomposition of hydrogen peroxide

How clouds are formed

Reaction rate according to surface area

Experiment list

Decomposition of hydrogen peroxide

How clouds are formed

Reaction rate according to surface are

ESD50102



## Wireless Colorimeter/ Turbidity Sensor

Measurement Range:  $\pm 0.5$  V,  $\pm 2$  V,  $\pm 10$  V

Measurement range:  $\pm 0.5$  V,  $\pm 2$  V,  $\pm 10$  V Display: 0.96»

Battery: Li-polymer (700mAh) Wireless: BLE 4.2

Wired: USB-C

Experiment list : Charging measurement by induction and frictional contact

ESD50105



## Wireless Salinity Sensor

Range: 0~ 50 pot

Resolution: 0.02 pot

Experiment list Measuring sea salt level Measuring salinity by season

ESD50100



## Wireless Temperature / Humidity Sensor

Range: 0~100% . Resolution: 2%

Wireless temperature-humidity sensor is a sensor that can measure relative humidity and temperature at the same time. It outputs a voltage according to the relative humidity in the air and detects humidity by air circulation.

Experiment list

Measurement of evaporation rate according to humidity

Observation of optimal growth conditions by relative humidity in greenhouses, etc.

Comparison of static electricity generation according to humidity

ESD50048



## Wireless Dissolved Oxygen Sensor

Range : 0~50 mg/L

Resolution: 1%

The wireless DO sensor is an optical dissolved oxygen sensor and is a wireless DO sensor for measuring dissolved oxygen in aqueous solution. Measured values are automatically compensated for temperature, barometric pressure and salinity

Experiment list

Photosynthesis of aquatic plants

Water quality measurement

ESD50050



## Wireless Thermocouple Sensor

Range: -200 ~ 1200°C

Resolution: 0.6°C

Experiment list

Flash point measurement

Temperature measurement for inner flame, outer flame and flame core

ESD50047





### Actuator Set

The Actuator Set 062 can be used to introduce the students to the basics of control technology. The set consists of the following elements: 3 red and 3 black 4-mm wires, 12-V switch, lamp holder with 3 coloured 12-V bulbs, 12-V buzzer, 12-V direct current motor, and propeller to connect to motor. All elements make use of the 4-mm buses.

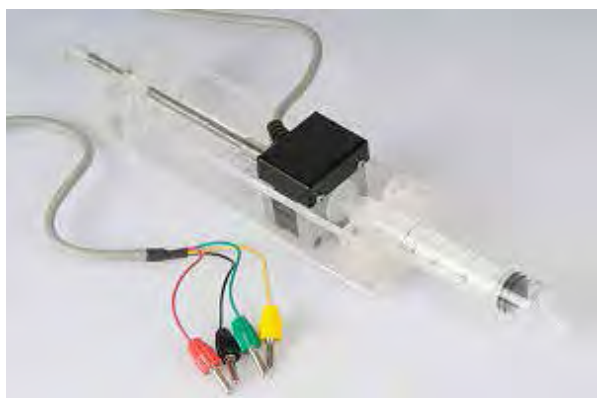
ESD50258



### Heating Coil

The Heating Coil 018 can be used as an actuator in control systems. The coil has 4 mm plugs for easy connection. The Heating Coil has to be supplied with 24 volt or less.

ESD50260



### Titration - Step - Motor Burette

ESD50263



### Switch Module

The Switch Module 063 is a solid-state-relay (SSR) that allows you to control 110 – 230 V devices by a voltage of 3 V DC or more up to 25 V). The relay is connected to the mains (110 V up to 230 V) via a Euro-connector at the rear of the module. The relay can supply devices up to 1150 W.

ESD50259



### Cuvette for Colorimeter BT29i

ESD50261



### Cuvette holder for Colorimeter BT29i

ESD50262





**Matter And Its Changes Kit 1**

Consist of:

1. Watch Glass Ø 80 mm 1 pc
2. Glass Funnel 75 mm 1 pc
3. Stirring Rod Ø 5 x 150 mm, Glass 2 pcs
4. Measuring Pipette 10 ml 1 pc
5. Measuring Cylinder 10 ml, Glass 1 pc
6. Measuring Cylinder 25 ml, Glass 1 pc
7. Beaker 100 ml 3 pcs
8. Beaker 250 ml 1 pc
9. Volumetric Flask 100 ml 2 pcs
10. Test Tube Ø 25 x 150 mm 1 pc
11. Test Tube Ø 25 x 150 mm with Side Pipe 1 pc
12. Mortar and Pestle, OD Ø 80 1 set
13. Wire Gauze 14 x 14 cm without Ceramic 1 pc
14. Tripod Stand Ø 100 x 80 mm 1 pc
15. Spirit Burner 60 ml, Stainless 1 pc
16. Universal Clamp Ø 70 mm 1 pc
17. Boss head Clamp 1 pc
18. Stand Base with 3 Clamps 1 pc
19. Stand Foot 1 pc
20. Stand Rod Ø10 x 250 mm 1 pc
21. Stand Rod Ø10 x 500 mm 1 pc
22. Alcohol Thermometer -10°C - 110°C 1 pc
23. Analogue Stopwatch 1 pc
24. Dropping Pipette 10.5 cm 2 pcs
25. Pipette Filler 1 pc
26. Rubber Stopper with One Hole, Ø 21/27 mm 2 pcs
27. Wash Bottle 250 ml 1 pc
28. Spatula, Stainless Steel 1 pc
29. Experiment Manual Book 1 exp

Complete with 2 tool holder tray and packed in a firm plastic box

Support Tools (sold separately):

Balance 311 g 1 set

**Dimension :** (L) 61.00 x (W) 26.00 x (H) 17.00 cm

**Weight :** 3.820 kg

ESC54137

**Matter And Its Changes Kit 3**

Consist of:

1. Watch Glass Ø 80 mm 1 pc
2. Glass Funnel Ø 75 mm 1 pc
3. Glass Stirring Rod Ø 5 x 150 mm 2 pcs
4. Measuring Pipette 10 ml 1 pc
5. Beaker 100 ml 4 pcs
6. Glass Measuring Cylinder 10 ml 1 pc
7. Glass Measuring Cylinder 25 ml 1 pc
8. Volumetric Flask 100 ml 2 pcs
9. Test Tube Ø 16 x 150 mm 6 pcs
10. Mortar and Pestle 1 set
11. Evaporating Basin 75 ml 1 pc
12. Spot Plate 1 pc
13. Wire Gauze 14 x 14 cm without Ceramic 1 pc
14. Tripod Stand, Circular 1 pc
15. Spirit Burner 60 ml, Stainless 1 pc
16. Thermometer Alcohol -10°C - 110°C 1 pc
17. Analogue Stopwatch 1 pc
18. Dropping Pipette 10.5 cm 2 pcs
19. Pipette Filler 1 pc
20. Wash Bottle 250 ml 1 pc
21. Spatula, Stainless Steel 1 pc
22. Test Tube Holder 1 pc
23. Test Tube Brush ? 24 mm 1 pc
24. Test Tube Rack, Plastic 1 pc
25. Experiment Manual Book 1 exp

Complete with 2 tool holder tray and packed in a firm plastic box, Additional tool (sold separately) : Balance 311 g (KNE 23)

**Dimension :** (L) 61.00 x (W) 26.00 x (H) 17.00 cm

**Weight :** 3.180 kg

ESC54139

**Matter And Its Changes Kit 2**

Consist of:

- 1 Watch Glass Ø 80 mm 1 pc
- 2 Glass Funnel Ø 75 mm 1 pc
- 3 Glass Stirring Rod Ø 5 x 150 mm 2 pcs
- 4 Measuring Pipette 10 ml 1 pc
- 5 Beaker 100 ml 3 pcs
- 6 Glass Measuring Cylinder 10 ml 1 pc
- 7 Glass Measuring Cylinder 25 ml 1 pc
- 8 Volumetric Flask 100 ml 2 pcs
- 9 Evaporating Basin 75 ml 2 pcs
- 10 Wire Gauze 14 x 14 cm without Ceramic 1 pc
- 11 Tripod Stand, Circular 1 pc
- 12 Spirit Burner 60 ml, Stainless 1 pc
- 13 Universal Clamp Ø 70 mm 1 pc
- 14 Boss-head Clamp 1 pc
- 15 Ring with Stem, Ø 65 mm 1 pc
- 16 Stand Base with 3 Clamps 1 pc
- 17 Stand Foot 1 pc
- 18 Stand Rod Ø 10 x 250 mm 1 pc
- 19 Stand Rod Ø 10 x 500 mm 1 pc
- 20 Thermometer Alcohol -10 °C - 110 °C 1 pc
- 21 Dropping Pipette 10.5 cm 2 pcs
- 22 Pipette Filler 1 pc
- 23 Wash Bottle 250 ml 1 pc
- 24 Spatula, Stainless Steel 1 pc
- 25 Crucible Tong 250 mm 1 pc
- 26 Magnet Bar 1 pc
- 27 Iron Metal 1 pc
- 28 Copper Metal 1 pc
- 29 Zinc Metal 1 pc
- 30 Ion Compounds Nomenclature Card 1 pack
- 31 Nylon Thread 1 pc
- 32 Experiment Manual Book 1 exp

Complete with 2 tool holder tray and packed in a firm plastic box

Support Tools (sold separately):

1. Balance 311 g 1 set
2. Periodic System of Elements, 111 Elements 1 pc
3. Distillation Kit 1 set
4. Water Filter Apparatus, Simple 1 set

**Dimension :** (L) 61.00 x (W) 26.00 x (H) 17.00 cm

**Weight :** 3.780 kg

ESC54138







### Physical Properties Kit

This kit introduces students to the physical properties of a variety of substances, including solid chemicals and solutions. In experiment one, students observe the colour, state of matter, odour, texture, and pH of substances. In experiment two, students determine the solubility and density of the same substances. Includes all required chemicals and substances, vocabulary and symbols worksheets, experiment worksheets, and reproducible laboratory procedures. Chemical symbols for elements and chemical formulas for compounds are introduced. Required, but not included: balance and general laboratory supplies. Designed for 24 students working in six groups of four. Grades 6-11

ESC54140



### Characteristics Of Matter

Ten experiments exploring the Characteristics of Matter include: Properties of Matter, States of Matter, Physical Properties of Solids, Physical Properties of Liquids, Melting Point, Boiling Point, Solubility of Solids, Density, Chemical Properties, and Identification of Unknown Solutions. Includes reproducible student labs, reproducible assessment materials for each lab, vocabulary, and complete answer keys. Required, not included: balance, ice, (24) small test tubes, test tube racks, 10 ml graduated cylinders, (6) beakers or clear cups, chemical splash goggles. Allow three one hour lab periods. Designed for 24 students working in groups of four. Meets national standards for grades 5-9.

ESC54136



### Chemical Properties Kit

Students test the chemical properties of seven different solutions by mixing them in each possible combination and observing their reactions. Evidence of chemical reactions observed include gas production, colour changes, and formation of precipitates. After becoming familiar with the chemical properties of the solutions, students use this information to identify any of the four unknown solutions. The kit includes all required chemicals, reaction plates, additional bottles for making student group chemical sets, reproducible student procedures, reproducible worksheets, and complete answer keys. Designed for 24 students working in six groups of four. Meets national standards for grades 9-12.

ESC54141

### Chemical Properties Refill

ESC54142



### Physical And Chemical Properties Kit

This very extensive kit includes chemicals and micro well plates for examining physical properties including the density and specific gravity of solids and liquids, the melting points of solids, the boiling points of liquids, and the colligative properties of mixtures as well as chemical properties including the percent composition of various compounds and properties of transition elements on a micro scale. This kit is all you will need for a complete lab experience on matter; physical and chemical properties for your students. Includes two lab quizzes. Kit contains lead shot. Required, but not included: balance, Bunsen burner, water bath, and standard laboratory supplies. Designed for 24 students working in six groups of four. Grades 9-12

ESC54143





### Chemical Equations I Kit

Introduce students to chemical equations as they perform and observe two different single replacement reactions and two different double replacement reactions. Colour changes, precipitate formation, and gas production are observed. The kit includes all required chemicals, a vocabulary exercise, and reproducible worksheets and laboratory procedures. Worksheets give students practice with chemical symbols, naming compounds, valence, and chemical formulas for compounds and radicals (polyatomic ions). Written laboratory exercises give students practice in identifying properties and completing and balancing single replacement and double replacement reactions. All chemicals included, additional laboratory supplies required. Designed for 24 students working in six groups of four. Addresses national standards for grade levels 8-12.

ESC54144



### Chemical Equations II Kit

Introduce students to chemical equations as they perform and observe decomposition and synthesis reactions. Changes in chemical and physical properties are observed and the concept that some reactions require heat to proceed is introduced. The kit includes all required chemicals, reproducible procedures, a vocabulary exercise, and reproducible worksheets emphasizing balancing equations, valence, writing chemical formulas, and identifying reactants and products. Required, but not included: Bunsen burner (optional) and general laboratory supplies. Designed for 24 students working in six groups of four. Grades 8-12

ESC54145



### Chemical Formulas I Kit

Students experiment to determine the correct chemical formulas for compounds by combining chemicals in various ratios, and observing the combination that produces the greatest amount of precipitate. Using the ratio of the combination, they determine the chemical formulas for the newly formed substances. Includes all required chemicals, vocabulary and chemical formula writing and naming worksheets, data sheets, reproducible procedures, and answer keys. Designed for 24 students working in six groups of four. Grades 7-12

ESC54146

### Chemical Formulas I Refill

ESC54147



### Chemical Formulas II Kit

Students experimentally determine the correct chemical formulas for compounds by combining chemicals in various ratios and observing the combination that produces the greatest amount of precipitate. Using the ratio of the combination, students determine the chemical formula for the newly formed substances. Includes more challenging stoichiometry than Chemical Formulas I and contains inquiry components. Includes all required chemicals, vocabulary, chemical formula writing and naming worksheets, data sheets, reproducible procedures, and answer keys. Designed for 24 students working in six groups of four. Grades 9-12

ESC54148







### Ionic Interaction Kit

This kit provides an introduction to ionic interactions. It gives students exposure to a large number of reactions, allowing maximal observation for a limited amount of time and effort. Includes precipitate forming, gas forming, and non-ionized product forming reactions. The investigation may be extended to teach students a number of additional basic chemical principles: including writing ionic formulas for the products formed; writing ionic interaction equations; relating placement of elements in the periodic table to their reactivity; and developing solubility principles from empirical evidence. Ideal for high school chemistry or physical sciences courses. Follow-up activities are suggested at the end of the instruction manual. Designed for 24 students working in groups of four. Contains cadmium nitrate and lead nitrate. Grade level 9-12.

ESC54149

### Ionic Interaction Refill

ESC54150



### Water Test (Qualitative Ion) Kit

Learn to test for chloride, nitrate, phosphate, mercury, magnesium, chromate, lead, and carbonate ions, which are indicators of water pollution. The kit includes test solutions containing each of the ions for establishing controls and Universal Indicator solution and a Universal Indicator pH Chart, which may be used for determining water pH. This kit may be used for detecting the presence of polluting ions in any fresh water supply. Required, but not included: sulphuric acid, deionized water, and glassware. Contains lead nitrates. Designed for 24 students working in six groups of four. Grades 9-14

ESC54151



### Fluorescent Dye Kit

Here is an attention grabbing method for introducing discussions about the electromagnetic spectrum and light. The set contains blue, green, orange and red fluorescent dyes suitable for colouring water for demonstrations, particularly those performed under black light (ultraviolet radiation of wavelength 320-400nm). The observed colour of conventional pigments and dyes results from their selective absorption and reflection of various wavelengths of light in the visible portion of the spectrum. The appearance of colour is absent when no light source is present. Certain materials have the property of absorbing radiant energy of wavelengths not visible to the human eye (usually 320 to 400 nm), converting them into energy of longer wavelengths, and emitting them as visible light. Materials possessing this property are said to be luminescent. Grades 8-12

ESC54152



### Molarity I Kit

Students determine Molarity experimentally using a simple titration method with an indicator solution. This kit includes two experiments, one in which students determine different molarities of an acid and one in which students determine different molarities of a base. Includes reproducible student worksheets for learning to write chemical formulas and to calculate formula mass, concentration, molarity, and molar mass. Kit includes all required chemicals, reproducible procedures for laboratory experiments, worksheets, assessment, and answer keys. Required but not included: goggles, evaporating dishes, and stirring rods. Designed for 24 students working in groups of four.

ESC54153

### Molarity I Refill

ESC54154





### Reaction Rate Factors I Kit

Four experiments expose students to factors which affect the rate of chemical reactions; heat, concentration, catalysts, and surface area. Using a variety of reactions, including neutralization reactions, and acid base indicators, students are able to time the chemical reactions by observing specific colour changes. The indicators used in these kits provide colourful results which are user friendly for students. The included worksheets focus on factors which affect reaction rates and their commercial significance. Includes all required chemicals, worksheets, reproducible laboratory procedures, and answer keys. Required, but not included: hot water bath, ice bath, and common laboratory supplies. Designed for 24 students working in six groups of four. Grades 9-12

ESC54155



### Acids And Bases I Kit

Students are introduced to acids, bases, and the pH scale through lab experiments using indicator solutions and papers commonly used in acid base titration's. In the first experiment, students compare eight test substances using red litmus paper, blue litmus paper, phenolphthalein, methyl orange, bromothymol blue, and phenol red. Then they compare the pH of common substances using Universal indicator solution, Universal indicator paper, and wide range pH paper. Students are asked to compare and contrast the results of these methods. Students observe the relationship between pH, ion concentrations, and the strengths of acids and bases. Students may continue to investigate by testing additional substances with the indicators. Lab activities are written in easy-to-understand, step-by-step format, and include worksheets, assessment materials, and answer keys. Includes small bottles for setting up group stations, and all required chemicals and supplies except goggles, gloves, and distilled water. Designed for 24 students working in groups of four. Meets national standards for grades 7-12.

ESC54156





### Ice Melting Kit

This elegantly simple kit challenges student's preconceived notions on concepts of heat and thermodynamics. The melting plates display quizzical properties when an ice cube melts on each plate. The aluminium plate that is cold to the touch melts the ice faster than the plastic foam plate, even though both have equivalent temperatures. A great demonstration for conductivity and heat transfer. Supplied with instruction manual.

Kit includes:

- 1 aluminium plate (9x9x1 cm)
- 1 plastic foam plate (9x9x1 cm)

ESC54159



### Smoke Cell - Whitley Bay

For observation of 'Brownian Motion' in smoke particles. Consists of box with plastic lid as well as flanges that allow easy attachment to standard microscopes. The box contains a smoke cell, cylindrical condensing lens and a 12 volts 3W festoon bulb. Apparatus pre-set to focus the light at correct height. The set is supplied with detailed instructions and a squeeze bottle type smoke generator. Dimensions 90 x 46 x 20 mm

ESC54161



### Heat Absorption Radiation Comparator

This apparatus allows demonstration for comparing heat absorption & radiation between dull and black bodies. Comprises of 12 V bulb which acts as a heat source and 2 parabolic metal bodies one finished in black and one in shiny metal. These bodies have 2 thermometer holders attached for temperature readings. Instructions included.

ESC54162



### Solids Materials Kit- In Gragnell Storage Tray

It comprises two each of seventeen blocks of different materials.

A variety of materials in the form of rectangular blocks, intended to familiarize students with appearance, 'feel', texture, hardness and density of a range of common substances. Kit comprises two each of seventeen blocks as detailed below.

Blocks, 50 x 40 x 30 mm. Softwood, hardwood, paraffin wax, aluminium, Iron, foamed polystyrene.

Blocks, 20 x 20 x 100 mm. Perspex, glass, slate, aluminium, softwood, Marble

Blocks other sizes: Lead 50 x 50 x 20 mm

Aluminium 50 x 50 x 80 mm

Hardwood 50 x 50 x 200 mm

Brass 20 x 20 x 50 mm

Iron 40 x 40 x 20 mm

ESC54160



### Charles Law Apparatus Single

A clear simple way of demonstrating that the volume of a fixed mass of gas is proportional to its absolute temperature. It comprises a Jolly's apparatus on an anodised stand. A scale is marked in mm. Spring clips secure an air reservoir and adjustment is made using a vertical clamping rod. Comes complete with a mercury levelling tube and Jolly air thermometer. The whole is supplied in a strong polished wooden storage box.

Our Charles Law apparatus does not use mercury as this is now deemed as a highly dangerous substance. Supplied with oil bead and ready to use.

0-5N x 0.1, 0-10N x 1 & 200g x 1g

Height 33.5cm x Width 40cm x Depth 1.5cm

Capillary tube 0-20cm reading

Thermometer -10 - 100 degrees centigrade

ESC54158

### Charles Law Apparatus Pk Of 10

ESC54157





### Statistics: Precision and Accuracy

Use a variety of basic volumetric measuring techniques to distinguish between precision and accuracy, while identifying an unknown liquid by its density. Students work as analytical chemistry to learn the importance of measurement reproducibility. Lessons include statistical analysis calculations of mean, standard deviation, and relative error. Students address the Inquiry Question: How is a physical constant used to verify the precision of a measuring tool Ideal for AP Chemistry, Chemistry I or II, or Honours Chemistry. Glassware is included in the Enhanced Kit (16-101B). Kit designed to exceed 2013 AP Next Generation National Standards. State of the Art instructor's Manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Recommended: analytical balance; not included. Meets AP Science Practice 2. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54235

### Statistics: Precision and Accuracy With Glass Ware

Use a variety of basic volumetric measuring techniques to distinguish between precision and accuracy, while identifying an unknown liquid by its density. Students work

as (analytical chemists) to learn the importance of measurement reproducibility. Lessons include statistical analysis calculations of mean, standard deviation, and relative error. Students address the Inquiry Question: How is a physical constant used to verify the precision of a measuring tool Ideal for AP Chemistry, Chemistry I or II, or Honours Chemistry. Glassware is included in the Enhanced Kit (16-101B). Kit designed to exceed 2013 AP Next Generation National Standards. State of the Art instructor's manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Recommended: analytical balance; not included. Meets AP Science Practice 2. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54236



### Spectrophotometric analysis Of Copper: Beers Law

Explore the interaction of light with copper ions in solution using photons from the visible portion of the electromagnetic spectrum. Students examine the relationship between transmittance, absorbency and solution concentration using Beers Law ( $A = \epsilon b \cdot C$ ) after determining Max. Fulfil the AP chemistry requirement for using a Spectrophotometer and learn to perform serial dilutions. Includes an inquiry based extension for determining the amount of copper in a penny (nitric acid not included). Experiments are adjustable to fit your lab period; minimal prep time. Ideal for AP or Honours Chemistry. Kit designed to exceed 2013 AP Next Generation National Standards. State of the Art instructor's manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Requires additional equipment: spectrophotometers, 10mL volumetric flasks, 1mL pipettes. Meets AP Science Practices: 2, 3 & 5. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54237



### Synthesis and Gravimetric Analysis Of Cobalt Oxalate Hydrate

Students will enjoy this lab as they experience multiple techniques required for AP chemistry; synthesizing cobalt oxalate hydrate by precipitation, gravimetric analysis

by dehydration, and oxidation-reduction (red-ox) titration on a unique compound. Experiments are well delineated and can be easily adjusted to fit your lab period: minimal prep time. State of the Art instructors manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Additional equipment required: analytical balance, burette, Bunsen burners, standard laboratory glassware. Meets AP Science Practices 2 & 7. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54238







### Acid Base Titration: an Inquiry Investigation

Students standardize a sodium hydroxide titrant with a primary standard, KHP; then find the concentration of an unknown acid solution. Ideal for fulfilling the AP

Chemistry Inquiry requirements as students investigate: What is the mass percent of citric acid in a piece of candy such as a Sour Patch Kid, Warhead, Smartee, Or Sweet Tart Minimal prep time and easily adapted to shorter lab periods. Ideal for AP or Honours Chemistry. State of the Art instructor's manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Additional equipment required: stir plates, burette, 250 & 500mL volumetric flasks, 1mL pipette, pH meter (optional). Meets AP Science Practices 2 & 3. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54239



### Separating Substances-by Adsorption Chromatography

Students learn the fundamentals of thin-layer chromatography (TLC), polarity, and intermolecular forces as they separate dyes on silica gels using predetermined solvent mixtures. In an inquiry exercise, students analyse their experimental results and propose unique solvent proportions to improve the chromatography system. After each lab group runs a newly designed experiment, all results are shared and analysed to determine the best solvent mixture for dye separation. Ideal for AP Chemistry, Chemistry I, Chemistry II, or Honours Chemistry courses. State of the Art Instructor's Manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations and an answer key. Additional equipment required: standard laboratory supplies. Meets AP Science Practices 1 & 5. Grades 10-14

ESC54240



### Stoichiometry: Reactions With Copper Compounds

Perform four quantitatively different reactions utilizing copper compounds. Identify reaction type, determine mole ratios experimentally, identify limiting reactants, and determine percent yield. The reaction series provides experience synthesizing ionic compounds, a coordination complex, and elemental copper. Ideal for AP Chemistry or Honours Chemistry. State of the Art instructors manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Additional equipment required: fume hood, vacuum filtration (recommended), hot plates, balances and basic laboratory supplies. Meets AP Science Practices 2 & 6. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54241



### Stoichiometry: Mole Ratio Of An Unknown

This unique, hands-on lab shows students how to treat heat as a quantitative product, using continuous variation (Jobs method). The reagent combination used provides reliable results far superior to competitor kits. State of the Art instructors manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Minimal prep time; easily adapted to shorter lab periods. Suitable for Honors and AP chemistry. Additional equipment required: glassware, thermometers, and Styrofoam cups. Meets AP Science Practices 2, 3 & 5. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54242





### Using Colligative Properties To Determine The Molar Mass Of An Unknown

Students investigate all aspects of freezing point depression including: solvent freezing constant, Vant Hoff factor, and molar mass. Fulfil the AP required inquiry component while determining important applications of freezing point depression in everyday life. Direct students to design an experiment to resolve: What is the lowest temperature at which road treatment containing calcium chloride would be effective, Includes multiple solvents and solutes, both ionic and molecular. State of the Art instructor's manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Additional equipment required: hot plates, analytical balances, thermometers, and basic lab supplies. Meets AP Science Practices 2, 3 & 5. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54243



### Determining Molar Mass Using The Ideal Gas Equation

This unique hands-on method of exploring gases allows students to compare properties of real and ideal gases (based on KMT assumptions) as they determine the molar mass of a volatile solvent. Students manipulate volume, temperature and pressure while using the ideal gas equation to compute moles of gas. Ideal for Honours or AP Chemistry. State of the Art instructor's manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Additional equipment required: hot plates, balances, ring stands, glassware, and basic lab supplies. Meets AP Science Practices 1, 2 & 5. Designed to accommodate 24 students working in groups of two. Grades 10-14

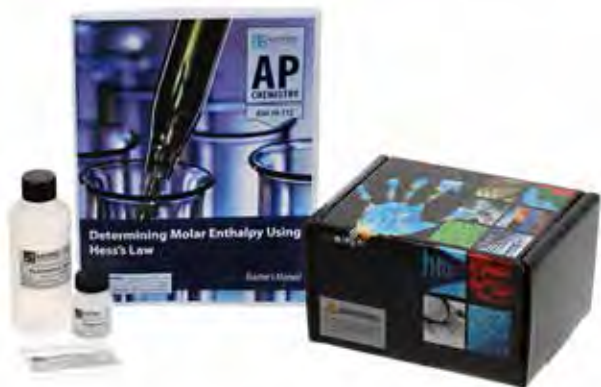
ESC54244



### Reaction Rate And Order

Using this superior reagent system, students are able to generate highly reproducible results from an iodine clock reaction. Students determine factors that affect reaction rates as they vary reactant concentrations, measure rates, calculate reaction orders, and calculate reaction rate constants. Activation Energy is also determined utilizing the logarithmic form of the Arrhenius equation by plotting temperature and reaction rate. State of the Art instructor's Manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Additional equipment required: stop watch, pipette, lab glassware. Meets AP Science Practices 1, 2 & 4. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54245



### Determining Molar Enthalpy Using Hess's Law

This calorimetry lab uses reliable reactions as students measure temperature changes, determine the calorimeter constant and ultimately calculate the molar enthalpy of formation for magnesium oxide using Hess's Law. Students compare lab results to standard values. Ideal for Honours or AP Chemistry. State of the Art instructor's Manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Procedures can easily be divided or used as collaborative lessons. Additional equipment required: thermometers, balances, basic lab supplies, and Styrofoam cups. Meets AP Science Practices 2 & 7. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54246





### Le Chateliers Principle

Students create and analyse four different equilibrium systems, allowing manipulation of a variety of stresses to show how systems respond by shifting in the direction that reduces stress. Students vary temperature, alter the pH of a weak acid indicator, use silver ions to draw chloride from a complex ion by precipitation, and design a set of conditions for optimum yield. Students make predictions and test their hypotheses. State of the Art instructor's Manual features background material, easy to follow stepwise protocols, assessment questions, sample data, and an answer key. Ideal for AP Chemistry, Chemistry II, or Honors Chemistry. Standard lab equipment and fume hood required. Experiments are readily adjustable to fit your lab periods. Meets AP Science Practices 6 & 7. Designed to accommodate 24 students working in groups of two.

ESC54247



### Identifying Weak Acids By PKA

Students perform titration on weak acids while measuring pH, perform qualitative analysis by determining PKA values of acids, perform quantitative analysis by calculating molar masses, confirm the identities of weak acids, and derive and use the Henderson-Hasselbalch equation. Features four different weak acid solids; three monoprotic, one diprotic. Ideal for two 45 minute lab periods. State of the Art Instructors manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Additional equipment required: pH meter, Burette, pipettes, and volumetric flasks. Meets AP Chemistry Science Practices 2, 5, and 6. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54248



### Preparing Buffer Solutions And Determining Their Properties

Students utilize the Henderson-Hasselbalch equation in analysing buffers. After being assigned one of the three buffer systems, pH, and component acids, bases or conjugates, students construct a buffer and test it based on their own calculations. Students compare the pH changes of their buffer to those of distilled water and other solutions. Minimal prep time required. State of the Art instructor's Manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Additional equipment required: pH meter, glassware. Meets AP Science Practices 4 & 7. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54249



### Determining The Equilibrium Constant (and Temperatures Effect) Withbeers Law

Loaded with important concepts and techniques for the AP chemistry student; determine the equilibrium constant using Le Chatelier's Principle and Beer's Law (using spectrophotometry) to determine equilibrium concentrations of reactants and products. Addresses the inquiry question: What is the effect of temperature on the equilibrium constant? Minimal prep time; easily adapted to three shorter lab periods. State of the Art instructor's manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Additional equipment required: spectrophotometers, glassware, and thermometers. Meets AP Science Practices 2 & 7. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54250





### Electrochemical Cells Voltaic And Electrolytic

Analyse oxidation-reduction (red-ox) reactions and become familiar with the activity series of metals and its importance in predicting the products of replacement reactions. Students test both Voltaic and Electrolytic cells, and predict and measure cell voltages. Lessons include learning to separate oxidation-reduction (red-ox) reactions into half reactions, as well as identifying both anode and cathode activity. Minimal prep time required. State of the Art instructor's manual features background material, easy to follow stepwise protocols, assessment questions, sample data, modelled calculations, and an answer key. Additional equipment required: a DC VOLTMETER, glassware. Meets AP Science Practices 3 & 7. Designed to accommodate 24 students working in groups of two. Grades 10-14

ESC54251



### Ap Chemistry Series (Includes Kit ESC54235)

The EduScience AP Chemistry Series includes 16 labs designed to meet the essential laboratory requirements of an AP Chemistry course. As a series, these labs address the 2013 Essential Knowledge, Science Practices, and Learning Objectives established by the AP College Board. Six labs incorporate specific Inquiry components and all labs contain instructions for optional inquiry adaptations. For planning purposes, each manual contains a complete breakdown of the AP Framework correlations for each of the 16 lab experiments. Grades 10-14

ESC54252



### Ap Chemistry Series (Includes Kit ESC54236)

The EduScience AP Chemistry Series includes 16 labs designed to meet the essential laboratory requirements of an AP Chemistry course. As a series, these labs address the 2013 Essential Knowledge, Science Practices, and Learning Objectives established by the AP College Board. Six labs incorporate specific Inquiry components and all labs contain instructions for optional inquiry adaptations. For planning purposes, each manual contains a complete breakdown of the AP Framework correlations for each of the 16 lab experiments. Grades 10-14

ESC54253







### Gel Filtration: Plant Pigments

This gel filtration technique allows students to take advantage of differences in molecular size and structure to separate plant pigments using chromatographic columns. Students pack their own Sephadex G-25 chromatographic columns. They observe the separation of anthocyanin, carotene, chlorophyll and xanthophyll from a mixture of these pigments. This separation is due to differences in size as well as the presence of aromatic and cyclic compounds. The greater the number of rings in the pigments, the greater the affinity of the pigments for the gel granules. Columns may be re-used. Required, but not included: beet, spinach, and coleus leaves, balance, lab glassware and supplies. Designed for 24 students working in six groups of four. Grades 10-14

ESC54310



### Chromatography Paper Roll G N 1

High-quality paper suitable for general analytical separations, electrophoresis, or chromatography requirements for educational use.

10 mm	ESC54311
20 mm	ESC54312
50 mm	ESC54313
100 mm	ESC54314
150 mm	ESC54315



### Chromatography Paper Sheet G N 1

No. 1, Chromatography Filter Paper sheet, Pack of 100.

Size 25x25cm	ESC54316
Size 10x30cm	ESC54317
Size 20x20cm	ESC54318
Size 46x57cm	ESC54319



### Chromatography Tank With Lid

Transparent rectangular jars Size 22.5x20x20 cm. For chromatography purpose use. Supplied with glass lid

ESC54324



### Simple Chromatography Kit

This exceptional introduction to paper chromatography, students learn how chromatography can identify the makeup of organic and inorganic substances. Students perform experiments to compare the effects of different solvents on the separation of chlorophyll extract and dyes into their constituent components.

ESC54325





### Drop Neutralization Kit

A great way to teach the principles of acid base titration to students with a limited laboratory background. Eliminates the need for expensive laboratory equipment for teaching titration, and includes all necessary materials alleviating extensive lab preparation. Ideal for leading into discussions about titration, acids, bases, pH, buffers, or environmental or physiological buffering systems in a range of science applications from Biology to Environmental Sciences to Physiology. Kit includes instructor's manual with background information, assessment materials, an answer key, and enough materials for 24 students working in six groups of four. Meets national standards for Grades 8-12.

ESC54359



### Stoichiometry Kit

Explore the types of chemical reactions, mole ratios, and stoichiometric equivalents which are central to all chemical calculations. Students perform a series of experiments including an electro-chemistry decomposition reaction, single replacement reactions, and double replacement reactions. Students are encouraged to predict possible products, as well as write and balance equations representing the reactions. Students will discover the quantitative nature of chemical equations and the experimental basis of numerically balancing coefficients. Includes a lab quiz. Kit includes all required chemicals and supplies for performing experiments on a micro-scale. Kit contains lead nitrate. Required, but not included: 9V batteries with clips and leads. Designed for 24 students working in six groups of four. Grades 9-12

ESC54360

### Stoichiometry Refill

ESC54361



### Acids , Bases And Salt , Micro-chem Kit

Students engage in three experiments to investigate the properties of acids, bases, and salts. First students use five solution indicators to explore the pH of acids and bases. Then they experience a micro-titration procedure for reacting acids and bases to form salts and learn the difference between strong and weak acids and bases. They also learn how a titration curve shows the endpoint or neutralization point for indicators. Finally, students apply the techniques they've learned to determine the concentration of acetic acid in household vinegar by titrating the weak acid with a strong base and using a phenolphthalein indicator. Includes all necessary chemicals and micro supplies for investigations. Required, but not included: distilled water. Designed for 24 students working in six groups of four. Grades 9-12

ESC54362

### Acids , Bases And Salt , Micro-chem Refil

ESC54363



### Basic Microchemistry, Single Kit

Basic Microchemistry includes all laboratory supplies required to perform the following five experiments chemistry labs in micro-scale: Mole Ratios, Catalysts, Rates of Reaction, Equilibrium, and Titrations. These sets provide an economical solution for increasing lab hour requirements with inexpensive, reusable supplies, reduced chemical costs, and easy clean up. You will need to supply small amounts of standard laboratory chemicals. Each single kit is ideal for two students. Class sets supply 24 students working in pairs. Student manuals feature stepwise protocols, clear instructional diagrams, and questions for assessment. Instructor's manuals are complete with answer keys.

ESC54364







### Basic Microchemistry, Class Pack Kit

Basic Microchemistry includes all laboratory supplies required to perform the following five experiments chemistry labs in micro scale: Mole Ratios, Catalysts, Rates of Reaction, Equilibrium, and Titration's. These sets provide an economical solution for increasing lab hour requirements with inexpensive, reusable supplies, reduced chemical costs, and easy clean up. You will need to supply small amounts of standard laboratory chemicals. Each single kit is ideal for two students. Class sets supply 24 students working in pairs. Student manuals feature stepwise protocols, clear instructional diagrams, and questions for assessment. Instructor's manuals are complete with answer keys.

ESC54365



### Advanced Microchemistry, Single Kit

Advanced Microchemistry includes all laboratory supplies required to perform the following ten experiments chemistry labs in micro-scale; Mole Ratios, Catalysts, Rates of Reaction, Equilibrium, Titration, Acids & Bases, Reduction of Hydrogen Sulphide, Reduction of Copper Oxide, Electrochemical Cell, and Decomposition of Water by Electrolysis. These sets provide an economical solution for increasing lab hour requirements with inexpensive, reusable supplies, reduced chemical costs, and easy clean-up. You will need to supply small amounts of standard laboratory chemicals. Each single kit is ideal for two students. Class sets supply 24 students working in pairs. Student manuals feature stepwise protocols, clear instructional diagrams, and questions for assessment. Instructor's manuals are complete with answer keys. Grades 9-12

ESC54366



### Advanced Microchemistry, Class-pack

Advanced Microchemistry includes all laboratory supplies required to perform the following ten experiments chemistry labs in micro-scale; Mole Ratios, Catalysts, Rates of Reaction, Equilibrium, Titration, Acids & Bases, Reduction of Hydrogen Sulphide, Reduction of Copper Oxide, Electrochemical Cell, and Decomposition of Water by Electrolysis. These sets provide an economical solution for increasing lab hour requirements with inexpensive, reusable supplies, reduced chemical costs, and easy clean up. You will need to supply small amounts of standard laboratory chemicals. Each single kit is ideal for two students. Class sets supply 24 students working in pairs. Student manuals feature stepwise protocols, clear instructional diagrams, and questions for assessment. Instructor's manuals are complete with answer keys. Grades 9-12

ESC54367





### Molecular Model

Can be used to explain elementary organic and inorganic compound structures.

Overall size : 23 x 17 x 3.5 cm, Material : Plastic

Showing different bonding types It contains different colour balls indicating different atoms, All of the parts fit neatly into plastic storage box Complete with manual instruction

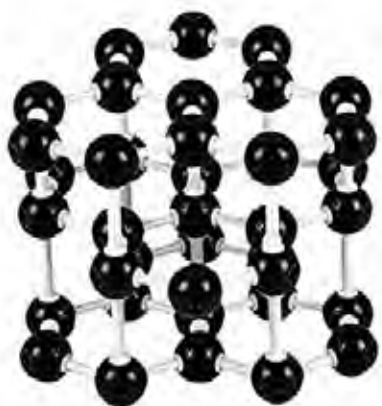
#### Consist of :

1. Carbon Black 13 pcs
2. Hydrogen White 26 pcs
3. Sulphur Yellow 1 pc
4. Nitrogen Blue 3 pcs
5. Oxygen Red 13 pcs
6. Halogen Green 6 pcs
7. Medium connector Grey 26 pcs
8. Long flexible connector Grey 12 pcs
9. Short connector White 34 pcs

**Dimension :** (L) 23.00 x (W) 17.00 x (H) 3.50 cm

**Weight :** 0.500 kg

ESC54388



### Molecular Model, Graphite

Ideal for demonstrate diamond molecular structure.

Material : Plastic

Consist of 57 plastic balls with 5 holes, 69 medium connectors (grey), and 14 long connectors (purple) represents as carbon atoms and bonds , All parts are packed in a plastic box for storage while not in use Complete with manual instruction

Dimension :(L) 23.20 x (W) 17.00 x (H) 3.50 cm

Weight :0.480 kg

ESC54391



### Molecular Model Diamond

Ideal for demonstrate diamond molecular structure.

Material : Plastic.

Consist of 30 plastic balls with 4 holes and 40 medium connectors, represents as carbon atoms and bonds.

All parts are packed in a plastic box for storage while not in use.

Complete with manual instruction

Dimension :(L) 23.50 x (W) 17.50 x (H) 3.50 cm

Weight :0.445 kg

ESC54389



### Molecular Model, Fullerene C-60

Ideal for demonstrate fullerene (C-60) molecular structure.

Material : plastic.

Consist of 60 plastic balls with 4 holes and 90 medium connectors, represents as carbon atoms and bonds.

All parts are packed in a plastic box for storage while not in use.

Complete with manual instruction.

Dimension :(L) 23.50 x (W) 17.00 x (H) 7.00 cm

Weight :0.700 kg

ESC54390





### Molecular Model Orbit System, Basic

Showing different bonding types. Can be used to explain organic and inorganic compound structures, including crystal structures. It contains different colour balls with different quantity of legs, indicating different atoms.

Material : plastic.

All of the parts fit neatly into compartmentalized box.

Complete with manual instruction.

Set of Molecular Model Orbit System, consist of :

- |  |  |
|--|--|
| 1 Oxygen Type a Red 15pcs Legs 1pc                 | 16 Metal Type q3 Grey 80pcs Legs 3pcs          |
| 2 Halogen Type a Green 15pcs Legs 1pc              | 17 Bonding pegs x Translucent 10pcs Legs 1pc   |
| 3 Hydrogen Type a White 120pcs Legs 1pc            | 18 Plastic straw 4 x 210 mm Grey 3             |
| 4 Hydrogen Type b White 50pcs Legs 2pc             | 19 Plastic straw 4 x 210 mm Green 5            |
| 5 Sulphur Type c Yellow 25pcs Legs 2pc             | 20 Plastic straw 4 x 210 mm Red 3              |
| 6 Oxygen Type d Red 30pcs Legs 2                   | 21 Plastic straw 4 x 210 mm White 5            |
| 7 Carbon Type j Black 50pcs Legs 3pcs              | 22 Plastic straw 4 x 120 mm Clear 3            |
| 8 Nitrogen Type j Blue 15pcs Legs 3pcs             | 23 Plastic straw 4 x 35 mm Green 350           |
| 9 Carbon Type k Black 78pcs Legs 4pcs              | 24 Plastic straw 4 x 20 mm Green 140           |
| 10 Nitrogen Type k Blue 5pcs Legs 4pcs             | 25 Plastic straw 4 x 35 mm White 45            |
| 11 Oxygen Type k Red 21pcs Legs 4pcs               | 26 Plastic straw 4 x 50 mm White 30            |
| 12 Sulphur Type k Yellow 5pcs Legs 4pcs            | Dimension :(L) 31.00 x (W) 22.50 x (H) 4.50 cm |
| 13 Halogen Type l Green 30pcs Legs 6pcs            | Weight :0.600 kg                               |
| 14 Metal Type l Grey 30pcs Legs 6pcs               |  |
| 15 Metal Type q6 Grey 40pcs Legs 6pcs (reel shape) |  |

ESC54392



### Biochemistry Student Kit

Learn about amino acids; monosaccharides, glycerol, fatty acids, steroids, purines and pyrimidines, peptides, disaccharides, lipids, nucleosides, nucleotides, proteins, polysaccharides, nucleic acids.

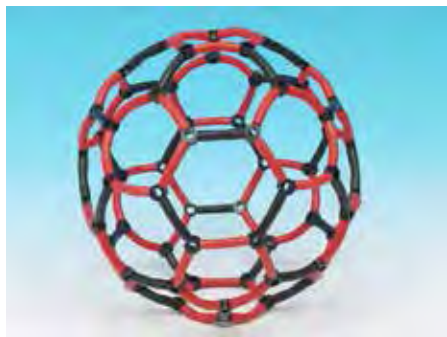
Advanced student set in pocket-sized plastic container.

255 atoms, 220 bonds, 44 page booklet covers the above structures.

ESC54401







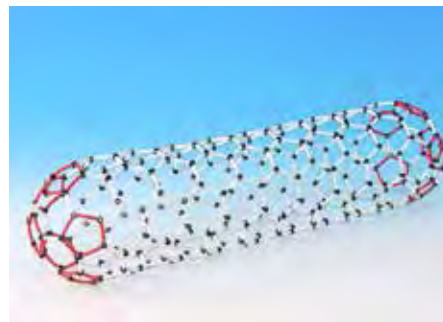
### Carbon 60 Model

Carbon 60 is the nearly spherical football-shaped molecule consisting of 60 carbon atoms. It is also known as the Buckyball and is the most stable example of the fullerene.

This Colour-wave model kit shows the highly symmetrical structure of Carbon 60. It is composed of 12 pentagons and 20 hexagons with alternating double and single bonds illustrated by different colour tubes in the model.

Part of the Orbit Colour-wave series, the model is easy to assemble and robust with sufficient atoms to see the relationships between structure and physical properties. Different coloured tubes illustrate the different types of bonding

ESC54393



### Carbon Nano-tube Model

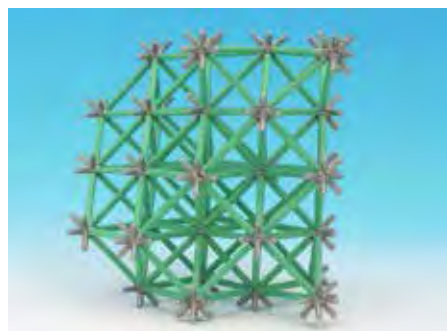
Carbon nano-tubes are currently one of the most intensively studied nano-materials with their unique molecular structure resulting in several potential exciting applications in current day nano-science.

Using this kit you can make a graphite sheet, carbon nano-tube, carbon 60 (buckyball) and related structures with up to 260 carbon atoms.

Instructions show how the carbon atoms can be arranged to illustrate the different symmetries of carbon rings in the nano-tube to create the chair, zigzag and chiral structures.

The kit uses the Minit molecular building system and contains 260 atoms to make a nano-tube model 50cm long.

ESC54394



### Copper Model Kit

Robust model containing sufficient atoms to see the relationships between structure and physical properties. Easy-to-build, low-cost kits, students learn as they follow the building instructions and model description.

Shape: Irregular | Height: 17cm | 38 copper atoms

ESC54395

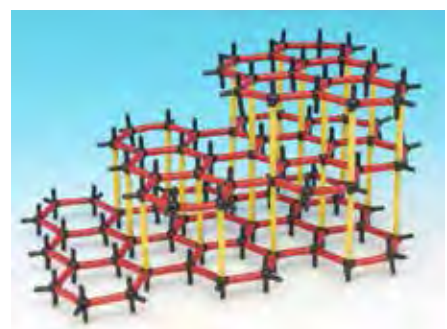


### Diamond Model Kit

Robust model containing sufficient atoms to see the relationships between structure and physical properties. Easy-to-build, low-cost kits, students learn as they follow the building instructions and model description.

Shape: Octahedron | Height: 22cm | 84 carbon atoms

ESC54396

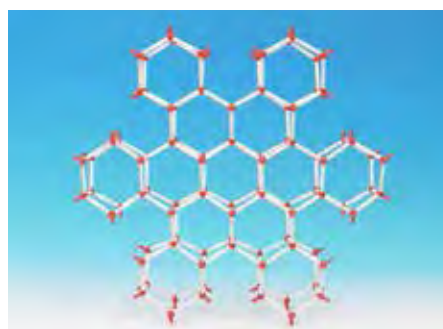


### Graphite Model Kit

Robust model containing sufficient atoms to see the relationships between structure and physical properties. Easy-to-build, low-cost kits, students learn as they follow the building instructions and model description.

Shape: Three layers | Height: 16cm; Width: 22cm | 94 carbon atoms

ESC54397



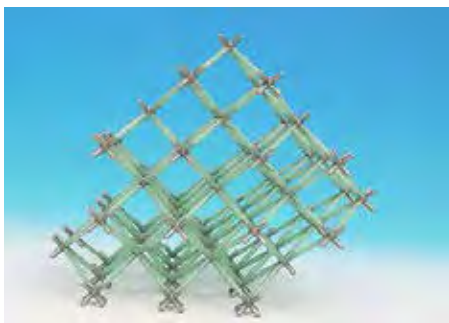
### ICE Model Kit

Robust model containing sufficient atoms to see the relationships between structure and physical properties. Easy-to-build, low-cost kits, students learn as they follow the building instructions and model description.

Shape: Snowflake | Diameter: 36cm | 96 oxygen atoms

ESC54398





### IRON Model Kit

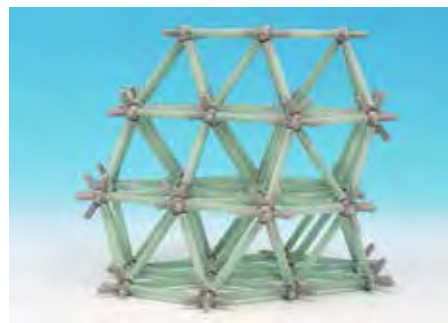
Robust model containing sufficient atoms to see the relationships between structure and physical properties. As easy-to-build, low-cost kits, students learn as they follow the building instructions and model description.

Shape: Irregular

Height: 20cm

71 iron atoms

ESC54399



### Magnesium Model Kit

Robust model containing sufficient atoms to see the relationships between structure and physical properties. Easy-to-build, low-cost kits, students learn as they follow the building instructions and model description.

Shape: Irregular | Height: 14cm | 38 magnesium atoms

ESC54400



### Inorganic Organic Student Kit

14 hydrogen (I), 6 carbon (IV), 7 oxygen (II, IV), 3 nitrogen (III, IV), 2 sulphur (II, VI), 2 phosphorus (III, V), 6 halogen (I), 4 metal (I, II, III, IV, VI), 4 brown (III, IV, V, VI), 3 lone pair 2D paddles (beige) Links: 20 medium (grey), 5 medium (purple), 12 long flexible (grey)

ESC54402



### Vibrating Atom Kit

This vibrating atom model formally demonstrates how atoms making up a solid (e.g. a crystal) are held together by spring-like forces.

Hold the model at arm's length and shake lightly, and pupils will see the individual atoms vibrate and move independently due to the springs holding them together. They will also notice that they remain in the same formation within the model, as they do in a solid.

Best used for demonstration purposes due to the ease with which the springs can be bent or misplaced.

Comprises 9 white ball atoms arranged in a 3 x 3 x 3 lattice, connected by 54 springs. Dimensions: 185 x 185 x 185 mm

ESC54408



### Organic Student Kit

20 hydrogen (I), 12 carbon (IV), 6 oxygen (II), 4 nitrogen (III, IV), 2 sulphur (IV, VI), 1 phosphorus (IV), 4 halogen (I), 1 metal (I) Links: 26 medium (grey), 12 long flexible (grey), 26 short (white), 1 short link remover tool

ESC54404



### Advance Chemistry Kit

18 hydrogen (I), 8 carbon (IV), 7 oxygen (II, IV), 4 nitrogen (III, IV), 6 chlorine (I), 6 fluorine (I), 3 sulphur (II, IV, VI), 2 boron (III, IV), 4 phosphorus (III, IV, V, VI), 6 metal (II, III, IV, VI), 3 lone pair 3D lobes (beige) Links: 26 medium (grey), 5 medium (purple), 12 long flexible (grey)

ESC54406







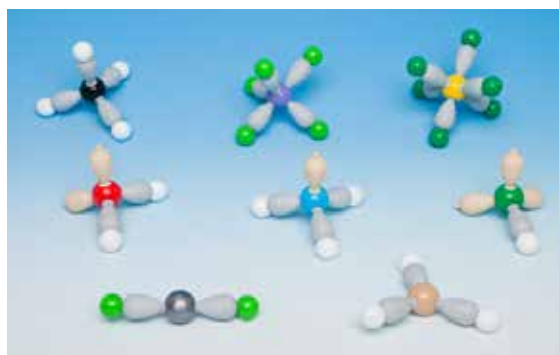
### Inorganic Organic Teacher Kit

Designed to make a wide range of open type models, such as amines, inorganic acids, metal oxides and simple organic structures.

Spheres: 4 metal (1 hole), 3 metal (2 holes), 2 metal (3 holes), 4 metal (4 holes), 1 metal (6 holes), 14 carbon (4 holes), 6 carbon (5 holes), 12 hydrogen (1 holes), 2 hydrogen (2 holes), 6 nitrogen (4 holes), 4 nitrogen (3 holes), 13 oxygen (2 holes), 4 oxygen (4 holes), 5 oxygen (1 holes), 8 sulphur (2 holes), 4 sulphur (4 holes), 1 sulphur (6 holes), 4 phosphorus (4 holes), 1 phosphorus (5 holes), 2 phosphorus (3 holes) and 8 halogen (1 holes).

Links: 38 grey medium, 12 purple medium, 36 long flexible. Atomic orbitals: 6 pink unhybridised p-lobes, 6 purple unhybridised p-lobes, and 6 lone pair of electrons lobes.

ESC54403



### Shapes Of Molecules Electron Repulsion Theory

This set contains sufficient parts to make eight atomic models. Each model is an example of the different orientations of the bonds and cover co-ordination numbers 1 to 6. Lone pairs are represented by brown spheres or brown pear shaped parts. The latter is useful as protonated models of  $\text{NH}_4^+$  and  $\text{H}_3\text{O}^+$  may be built thus demonstrating Acid/Base theory.

Spheres: 1 carbon (4 holes), 1 oxygen (4 holes), 1 nitrogen (4 holes), 1 sulphur (6 holes), 1 phosphorous (5 holes), 1 chlorine (4 holes), 1 boron (3 holes), 1 metal (beryllium) (2 holes), 7 chlorine (1 holes), 9 fluorine (1 holes), 13 hydrogen, 6 circular lone pair orbitals, 6 pear shaped lone pair orbitals.

Links: 26 grey pear shaped sigma bonds, 6 short links (to be used with circular lone pairs).

ESC54407



### Sodium Chloride Model Kit

Self-assembly kit

ESC54409



### Organic Teacher Kit

The TEACHER organic set can be used to make any number of simple molecules and is designed for those needing to make many models, such as teachers and lecturers.

The atom parts are made of solid plastic spheres and are available with from 1 - 6 holes in the usual angular orientations.

The contents are contained within a sturdy plastic storage box.

The contents of the organic teacher set include;

Atoms:

- 24 carbon atoms (black, 4 hole, tetrahedral)
- 6 carbon atoms (black, 5 hole, trigonal bipyramidal)
- 2 carbon atoms (black, 2 hole, linear)
- 6 carbon atoms (black, 3 hole, trigonal)
- 12 oxygen atoms (red, 2 hole, angular)
- 40 hydrogen atoms (white, 1 hole)
- 4 nitrogen atoms (blue, 4 hole, tetrahedral)
- 1 sulphur atom (yellow, 4 holes, tetrahedral)
- 1 sulphur atom (yellow, 2 holes, angular)
- 4 phosphorus atoms (purple, 4 hole, tetrahedral)
- 8 halogen atoms (green, 1 hole)
- 2 metal atoms (grey, 1 hole)
- 1 metal atom (grey, 2 holes, angular)

Bonds:

- 55 medium links (grey, single bonds)
- 25 long flexible links (grey, double/triple bonds)
- 60 short links (white, all bond types)
- 6 pink unhybridised p-lobes, 6 purple unhybridised p-lobes and 6 lone pair of electrons lobes.

Tool:

- 1 tool (used for disassembling models containing short link bonds)

ESC54405



### Zinc Sulphide Model Kit

45 atom self-assembly kit

ESC54410







### Families Of Elements I Kit

Students are introduced to families (groups) within the periodic table that have the same number of electrons in their outer energy orbitals. Tests are conducted to determine if those elements have similar chemical activity. This kit includes two experiments, one in which students determine the reactivity of the non-metals in the halogen family and one in which they observe the properties of oxygen. Worksheets focus on identifying characteristics of elements within the halogen, oxygen and nitrogen families, separation methods, and the observed chemical reactions. Kit includes all required chemicals, reproducible procedures for laboratory experiments, a test, and answer keys. Required, but not included: chemical ventilation hood, general lab supplies. Includes nitric acid. Designed for 24 students working in six groups of four. Grades 9-12

ESC54446



### Elements, Compounds & Mixtures I Kit

In the laboratory, students identify that a mixture can be separated using one of a variety of methods such as evaporation, distillation, filtration, or crystallization when differences in solubility exist. Experiment one is designed to separate a mixture of an element and a compound using solubility and filtration. Experiment two is designed to separate a mixture of two compounds using solubility and filtration. Experiment three is designed to separate a mixture using chromatography. Experiment four is designed to separate a mixture by evaporation. Includes all required chemicals, vocabulary exercise, and reproducible laboratory procedures and worksheets. Required, but not included: balance and laboratory supplies. Designed for 24 students working in groups of four. Meets national standards for grades 7-10.

ESC54447

### Elements, Compounds & Mixtures I Kit

ESC54448



### Elements, Compounds & Mixtures II

This kit illustrates the concepts of elements, compounds, and mixtures with special emphasis on creating new compounds in chemical reactions. Students witness evidence of chemical changes identified by the formation of precipitates, colour changes, odours, or the production of gas. The kit includes enough materials to repeat the experiment twice, with vocabulary and activity worksheets focused on chemical symbols, chemical formulas, chemical names, components of common compounds, and distinguishing between chemical and physical changes. Answer keys included. Required, but not included: balance and laboratory supplies. Designed for 24 students working in six groups of four.

ESC54449

### Elements, Compounds & Mixtures II Kit Refill

ESC54450





### Hoffman Electrolysis Apparatus

Made of Borosilicate glass, graduated. For study of composition of water by volume and E.C.E. of hydrogen by electrolysis. H-shaped glass unit has two connected limbs, with stopcocks at the top and electrodes at the bottom. Limbs are connected to central tube and bulb reservoir at apex of outer tubes and inner tubes respectively. Outer limbs graduated 0-50 x 0.2ml.

Stable retort stand and clamps included. Includes one pair each of platinum and carbon electrodes. Supplied with Instructions.

ESC54493



### Absorption Tube With Side Arm

Absorption tubes, calcium chloride, U-form with side arms and strong walls, borosilicate glass.

Height	Diameter	NO
100mm	13mm	ESC54496
150mm	15mm	ESC54497



### Beehive Shelf

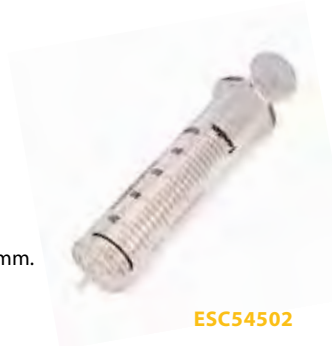
This porcelain Beehive Shelf is glazed inside and out. It is for use in pneumatic troughs for gas collection. Diameter: 100mm.

ESC54498

### Gas Syringe

Graduated glass syringe Gas tight  
Heat resistant.

Size: Outlet tube external diameter: 7mm.  
Capacity:  $100\text{cm}^3 \times 1\text{cm}^3$ .



ESC54502



### Spare Carbon Electrodes In Rubber Stoppers

Spare Carbon Electrodes in rubber stoppers, Overall length 8cm

ESC54495



### Spare Platinum Electrodes In Rubber Stoppers

Spare Platinum Electrodes in rubber stoppers, Overall length 8cm

ESC54494



### Gas Jar Cylindrical Boro

Borosilicate glass with heavy foot and grounded flange. Lid not included.

Height 20 cm, Diameter 5 cm

ESC54499

Height 25 cm, Diameter 5 cm

ESC54500



### Gas Jar Cover Dia 6 Cm

6CM Circulars sheet glass, ground one side.

ESC54501





### Kinetic Theory Model

To study the motion and behaviour of gas molecule, works on 9 to 12V DC, vibrates a small platform inside a transparent tube, which further vibrates steel balls inside the tube. Includes steel balls and two floats.

ESC54503



### Simple Gas Preparation Kit

Simple gas preparation kit use for producing gasses which can be collected over water, e.g. Oxygen, hydrogen and carbon dioxide. Comprises with plastic tank with lid, test tube stand, five test tube 150x24mm and stopper, special gas chimney shelf, delivery tube and tubing connector. The tank and lid form a storage box for all components.

ESC54504



### Salt Bridge

For use in experiments involving the measurement of cell EMF under conditions of forward, zero and reverse current flow. The bridge comprises an inverted "U" tube with its ends closed by sintered discs. This apparatus provides a more effective method of making reversible cells than the wet filter paper or agar gel methods. Dia. of arms 13 mm, overall width 80 mm, overall height 100 mm

ESC54510



### Plate For Simple Cell Lead

Plate size 125 x 50 mm and fitted with 4 mm socket terminals.

ESC54505

### Plate For Simple Cell Carbon

Plate size 125 x 50 mm and fitted with 4 mm socket terminals.

ESC54506

### Plate For Simple Cell Zinc

Plate size 125 x 50 mm and fitted with 4 mm socket terminals.

ESC54507

### Plate For Simple Cell Copper

Plate size 125 x 50 mm and fitted with 4 mm socket terminals.

ESC54508



### Trough Pneumatic, Soda Glass

Made of soda glass. Dia 30 cm, height 12.5cm

ESC54511

### Trough Pneumatic, Soda Glass

Made of soda glass. Dia 25cm, height 12.5cm

ESC54512

### Trough Pneumatic, Soda Glass

Made of soda glass. Dia 20cm, height 12.5cm

ESC54513



### Trough Pneumatic, Polypropylene, Dia 18cm, Height 6cm

Dia 18cm, height 6cm, Polypropylene, autoclavable, can be used for storage, sterilizing and drying lab-ware.

ESC54509







### Electrolysis Cell

For quick demonstration of electrolysis. Comprises open-ended glass tube fitted with two carbon electrodes by means of a rubber stopper. Connections made by crocodile clips and an insulating strip of plastic in the bung prevents the clips being shorted accidentally. Consists of glass tubes of dia 74 x 24mm, and collecting tubes of dia 75 x 10mm.

ESC54514



### Carbon Rod

With terminal, length 140 mm and dia. 15 mm

ESC54515



### Distillation Set Quickfit

Set includes :

- 1 x Celsius Thermometer
- 1 x Vacuum Take Off Adapter(BORO 3.3)
- 1 x 3 Way Thermometer Adapter
- 1 x 500 ml Round Bottom Flask BORO 3.3
- 1 x 1000 ml Round Bottom Flask BORO 3.3
- 1 x 250 mm Liebig Bondenser, 10mm Hose Connection BORO 3.3
- 1 x Latex Hose

ESC54580

### Organic Chemistry Glassware Kit 16Pcs

This deluxe set is designed for organic chemistry labs and is suitable for preparations up to 150g. All glassware is jointed (joint sizes available upon request). Includes a sturdy storage box with foam insert.

#### Contents:

Still Head, (socket size 14/23, cone size 19/26) 1, Dropping Funnel (100ml) (socket size 19/26, cone size 19/26) 1, Thermometer Pocket (cone size 14/23) 1, Air Leak / Steam Inlet Tube (cone size 19/26) 1, Round Bottom Flask (250ml) (socket size 24/29) 1, Erlenmeyer Flask (250ml) (socket size 24/29) 1, Reducing Adapter (socket size 19/26, cone size 24/29) 1, Round Bottom Flask (100ml) (socket size 24/29) 1, Receiver Adapter with Vent (socket size 19/26, cone size 24/29) 1, Multiple Adapter (socket size 19/26, cone size 24/29) 1, Round Bottom Flask (50ml) (socket size 24/29) 1, Stopper, (cone size 19/26) 1, Stopper, (cone size 19/26) 1, Stopper, (cone size 24/29) 1, Receiver Delivery Adapter, Long Stem (socket size 19/26) 1.



### Organic Quick fit Set - 27BU/M - 14/23 Joints

27 BU ORGANIC CHEMISTRY SET 27 ITEMS AS DESCRIBE.

#### INCLUDES :

For preparative chemistry up to advanced level. This set enables a number of preparations to be carried out on the 30g scale. **Contents:** Pear shaped flask, 50cm, Still head, Liebig condenser, Screw-cap adaptor, Receiver adaptor, Thermometer, 0 - 360 C x 2 C, Dropping funnel, 50cm with Rotaflo tap , Stopper, Air leak/steam inlet tube.

ESC54576



### Organic Chemistry Glassware Kit 9Pcs

This starter set is designed for organic chemistry labs and is suitable for small-scale procedures up to 30g. All of the ground glass components in this set have a joint size of 14/23. Includes a sturdy storage box with foam insert.

#### Contents:

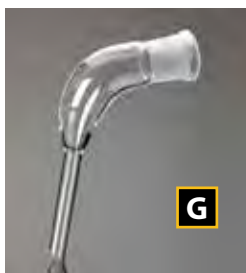
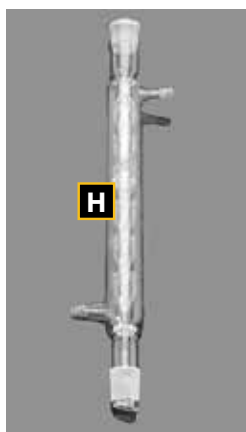
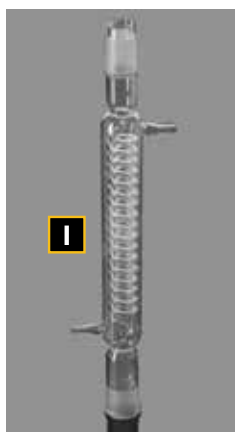
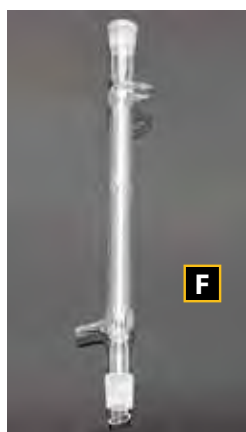
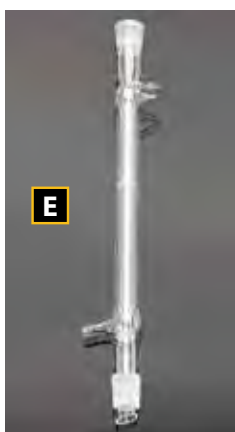
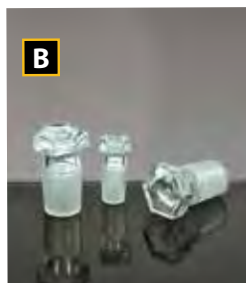
Dropping Funnel (50ml with Rotoflo Stopcock) 1, Receiver Delivery Adapter, Long Stem 1, Stopper for Dropping Funnel 1, Screw Cap Adapter 1, Air Leak / Steam Inlet Tube 1, Thermometer 1, Boiling Flask (50ml) 1, Still Head 1, Liebig Condenser 1

ESC54577



ESC54578





### A Quick-fit Joint Clips Conical Joints

Conical joint clips Keck pom 14/23 yellow

ESC54582

Conical joint clips keck pom 19/26 blue

ESC54583

Conical joint clips keck pom 24/29 green

ESC54584

### B Quick-fit Reduction Adaptors

Hollow stopper

14/23 flat bottom

ESC54587

19/26 flat bottom

ESC54588

### C Quick-fit Reduction Adaptors

Reduction adaptor socket

14/23 cone 19/26

ESC54591

14/23 cone 24/29

ESC54592

19/26 cone 24/29

ESC54593

### D Quick-fit Expansion Adaptor

Expansion adaptor socket

19/26 cone 14/23

ESC54597

24/29 cone 14/23

ESC54598

24/29 cone 19/26

ESC54599

### E Quick-fit Condenser Liebigh With Screw-thread

Liebigh condenser with screw thread

160mm socket 14/23 cone 14/23

ESC54603

160mm socket 19/26 cone 19/26

ESC54604

400mm socket 24/29 cone 24/29

ESC54605

### F Quick-fit Condenser Liebigh

Liebigh condenser with glass connector

160mm socket 14/23 cone 14/23

ESC54609

400mm socket 24/29 cone 24/29

ESC54610

### H Boro 3.3 Glass

Available with glass and plastic screw thread connector ;Inner bulb section provides increased cooling surface and is ideal for Reflux

160mm socket 14/23 cone 14/23

ESC54703

250mm socket 14/23 cone 14/23

ESC54704

300mm socket 24/29 cone 24/29

ESC54705

400mm socket 24/29 cone 24/29

ESC54706

### I Condenser , Air Coil

ESC54612

### V Quick-fit Multiple Adapter With 2 Necks

Multiple adapter 2 neck one joint at 45 degree socket

19/26 cone 19/26

ESC54614

### G Quick-fit Receiver Adaptor

Receiver delivery adaptor short stem socket

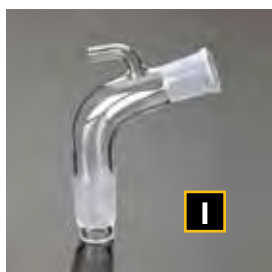
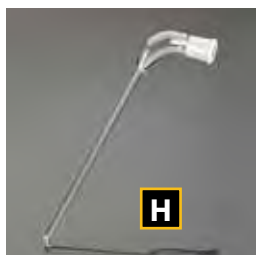
14/23 65mm

ESC54618

19/26 65mm

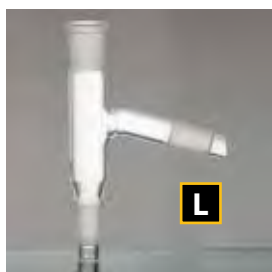
ESC54619



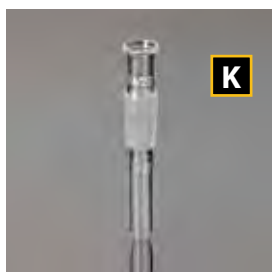


- H Quick-fit Receiver Adaptor**  
Receiver delivery adapter long stem socket  
14/23 190mm [ESC54622](#)  
19/26 200mm [ESC54623](#)

- I Quick-fit Receiver With Vented Bend**  
Receiver adapter bend with vent socket  
14/23 cone 14/23 [ESC54626](#)  
9/26 cone 19/26 [ESC54627](#)



- J Quick-fit Recovery Bend Sloping Adaptor**  
Recovery bend sloping cone size to fit flask  
14/23 cone size to fit condenser 14/23 [ESC54630](#)
- L Quick-fit Still Head**  
Still head plain socket 14/23 cone size to fit flask  
14/23 cone size to fit condenser 14/23 [ESC54634](#)  
14/23 cone size to fit flask 19/26 [ESC54635](#)

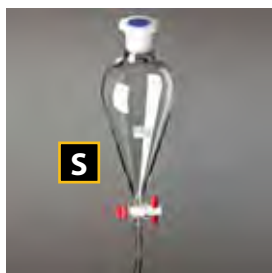
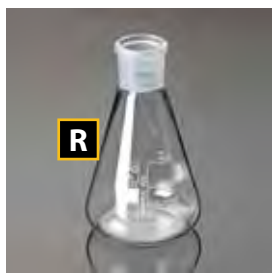


- K Quick-fit Thermometer Pocket**  
Thermometer pocket stem length 45mm cone 14/23 [ESC54638](#)
- M Quick-fit Air Leak Tube Gas Inlet Tube**  
Air leak tube gas inlet tube cone 14/23 [ESC54641](#)



- P Quick-fit Flask Pear Shaped**  
Pear shape flask single neck din  
50ml socket 14/23 [ESC54663](#)  
100ml socket 14/23 [ESC54664](#)

- Q Quick-fit Flask Pear Shaped With Two Necks**  
Pear shape flask two neck din 50ml centre socket  
14/23 side socket 14/23 [ESC54669](#)



- R Quick-fit Flask Conical**  
Conical flask din 250ml socket 19/26 [ESC54673](#)
- S Quick-fit Separating Funnel Conical Squibb Shape**  
Separating funnel PTFE key stopcock clear glass din Squibb without graduation pp stopper  
50ml 19/26 [ESC54678](#)  
100ml 19/26 [ESC54679](#)  
250ml 29/32 [ESC54680](#)  
500ml 29/32 [ESC54681](#)  
1000ml 29/32 [ESC54682](#)







### **N** Quick-fit Cone- Screw-thread Adaptor

Simple glands with cap 6 mm cone 14/23

ESC54645

### **O** Quick-fit Flask Round Bottom, Short Neck

Round bottom flask single neck din

25ml socket 14/23

ESC54648

50ml socket 14/23

ESC54649

100ml socket 14/23

ESC54650

100ml socket 19/26

ESC54651

100ml socket 24/29

ESC54652

250ml socket 14/23

ESC54653

250ml socket 19/26

ESC54654

250ml socket 24/29

ESC54655

1000ml socket 24/29

ESC54656

### **T** Quick-fit Dropping Funnel Stem With Cone

Separating funnel PTFE key stopcock clear glass pear shape stem inside cone without graduation pp stopper 50ml socket

19/26 cone 19/26

ESC54687

100ml socket 14/23 cone 14/23

ESC54688

### **V** Separating Funnel pear Shape PTEE

with pp stopper Rotaflow stopcock • Made from DIN ISO 3585, BORO 3.3 GLASS • Complies with DIN 4800 Standards, Available with PP Stopper

50ml socket 14/23 cone 14/23

ESC54690

100ml socket 14/23 cone 14/23

ESC54691

### **U** Quick-fit Dropping Funnel, Open

Separating funnel (cylindrical) PTFE needle valve stopcock without graduation pp stopper

50ml socket 14/23 cone 14/23

ESC54692

100ml socket 14/23 cone 14/23

ESC54693



# SAFETY & PROTECTION



EduScience UK<sup>®</sup>



[www.eduscienceuk.com](http://www.eduscienceuk.com)

**We Contribute  
To Future Education**

# SAFETY & PROTECTION

- Safety Goggles
- Safety Screen
- Protective Gloves
- Protective Clothing
- Sharp Containers
- First Aid
- Accessories
- Simulators & Manikins
- Refregirators



**Call Us Today +44 (0)203 8685740**





## Safety Goggles Soft Vinyl Direct Vent

lightweight and direct ventilation sides. Clear Color with Poly Carbonate Clear Lens and elastic headband Eye protection designed to protect your eyes from flying objects

Certification : ANSI Z87.1, CE EN166

**ESG58737**



## Safety Goggles Soft Vinyl Indirect Vent

lightweight and direct ventilation sides. Clear Color with Poly Carbonate Clear Lens and elastic headband Eye protection designed to protect your eyes from flying objects

Certification : ANSI Z87.1, CE EN166

**ESG58738**



## Safety Goggles Soft Vinyl Splash PPE - Youth Size

Eye protection with clear, flexible vinyl body 15% smaller than standard safety eyewear Indirect ventilation Splash and impact protection Protects against 100% of U.V. rays Meet ANSI Z28.1+ high-impact standards Clear uncoated polycarbonate lens and elastic headband

**ESG58739**



## Safety Spectacle ES130

Safety Spectacle with enhanced side protection Clear Lens CE Certified

**ESG58742** Each  
**ESG58743** PK/10



## Safety Spectacle ES660

Safety Spectacle, Clear Lens Impact Resistant, UV380 No Metal Parts Including, Ventilation Glasses Temples CE, ANSI & AS/ NZS Certified

**ESG58745** Each  
**ESG58746** PK/10



## Safety Spectacle ES661

Frame-less Safety Spectacle ANSI Certified

**ESG58747** Each  
**ESG58748** PK/10



## Safety Spectacle ES802

Safety Spectacle Clear Lens, Impact Resistant, UV380 Frameless Wraparound CE, ANSI, AS / NZS Certified

**ESG58749** Each  
**ESG58750** PK/10





**Safety Spectacle ES9008**

Safety Spectacle Frame-less Wraparound Adjustable Temples  
CE Certified

**ESG58751** Each  
**ESG58752** PK/10



**Safety Spectacle ESX6**

Safety Spectacle/ Clear Lens Slim Style Light Weight.,CE, ANSI, AS/ NZS  
Certified

**ESG58754** Each  
**ESG58755** PK/10



**Safety Goggle Sporty ES01**

Safety Goggle Sporty Style Safety Goggles-lightweight clear or blue  
PVC body to fit most face shapes Indirect Ventilation system Adjustable  
elastic strap,CE & ANSI Certified

**ESG58757** Each  
**ESG58758** PK/10



**Safety Goggle ES07**

Safety Goggle Indirect Ventilation, Adjustable Elastic Strap,CE, ANSI,  
AS / NZS Certified

**ESG58759** Each  
**ESG58760** PK/10



**Safety Goggle ES07**

Safety Goggle Direct Ventilation ,CE, ANSI, AS/ NZS Certified

**ESG58761** Each  
**ESG58762** PK/20



**Face Shield**

**ESG58763** ES03 Face Shield PC Clear Visor, Light Weight  
CE, ANSI Certified  
**ESG58764** ES03A Face Shield Clear PC 8"X12" Polycarbonate  
CE, ANSI Certified  
**ESG58765** ES06 Face Shield PC Clear Visor, Double Bracket  
CE, ANSI Certified

**Safety Spectacle Hanger**

Can be mounted on wall, made of strong fabric  
hanger with pockets for up to 20 pairs of safety  
spectacles.

**ESG58767**



**Lens Cleaner Spray**

Capacity of 250ml,Anti-bacterial, anti-static, anti-  
reflective cleaning spray.

**ESG58766**



## Ultraviolet Sterilization Goggle Cabinet - 30-Goggle Model

Designed for use in schools where reuse of laboratory safety goggles and earphones presents a health hazard. It provides dry sterilization using ultraviolet radiation. When the doors are closed and locked, the interior can be flooded with ultraviolet light. All bacteria or micro-organisms within the cabinet are killed. The door has a key lock safety closure, and the ultraviolet lamp is automatically shut off when the doors are opened. A built-in 15-minute automatic timer controls the sanitizing period desired. 24-gauge steel cabinet. Operates on a 220V AC with a 3-wire grounded cord. Special aluminium reflective interior surface available upon request to insure complete sterilization of cabinet and goggles. Dimensions: 60 x 780 x 23 cm. Supplied with a rack to hold 30 pairs of goggles. Goggles not included. White, baked enamel

**ESG58773**



## Channel Base for protection screen

To use with protective screen

**ESG58769**



## Protective Screen

Made of clear perspex material  
dimensions : 750 x 600 x 3mm. Need channel base to mount on the table

**ESG58768**



## Fixed Safety Screen

Made of clear perspex material dimensions height 600 mm with 3 fixed angles

**ESG58770**



## Folding Safety Screen

Made of clear perspex material ,dimensions : height 600 mm with 3adjustables angles

**ESG58771**







### Gloves, Leather Pair

Made of leather used to protect hand against heat

ESG58774



### Hand Protectors - Silicon Superior

Heat and cold resistant silicon rubber glove, with the help of this, one can easily handle heated up material like flask, bottles, beakers etc. Studded surface is used for positive grip of material with a temp. of 250°C. Pockets for fingers thumb fit every hand size.

ESG58778

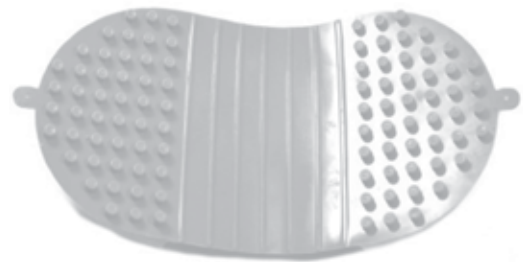


### Heat Resistance Gloves Pair

made from high-strength heat resistant & wear resistant & thickened degreased heat resistant cotton material.

Outer layer attached the non-slip temperature resistant silicone, 2-Level system protect your hands! The highest heat resistant is available up to 1472°F/800°C.

ESG58775



### Hand Protectors - Silicon

Heat and cold resistant silicon rubber glove, with the help of this, one can easily handle heated up material like flask, bottles, beakers etc. Studded surface is used for positive grip of material with a temp. of 250 °C. Pockets for fingers thumb fit every hand size.

ESG5877



### Foam Rubber Matting 60x40 , Bench Mats

A laboratory mat made of silicone rubber is a commonly used accessory in many laboratory settings. It is a flat, flexible, and durable mat that provides a non-slip surface for working on laboratory benches and surfaces.

Silicone rubber laboratory mats are resistant to chemicals, heat, and physical wear and tear, making them ideal for use in scientific and experimental work. They can withstand high temperatures and are easy to clean and maintain.

ESG58776



### Flask Supports Cork Ring

Ring supports are made of compressed cork for supporting flasks or dishes.

ESG58777



### Noise Reduction Headphones Adult & Children

Lightweight yet powerful, the headphones block out extraneous noise, but still allow kids to hear nearby conversations and participate in their surroundings. MINIMIZE NOISE. Ideal for noisy environments like lunchrooms, sporting events, airports or birthday parties which can be overwhelming for kids with auditory defensiveness. Reduces noise up to 20 decibels. MAXIMIZE CONCENTRATION. Muffle distracting noises to help improve focus and concentration while taking a test, doing homework, or block out background noise to reduce stress & anxiety in overwhelming situations. MADE FOR COMFORT. To perfectly fit all shapes and sizes, simply adjust the headband. They're lightweight and the padded earmuffs provide all day comfort. COMPACT AND PORTABLE. The headphones are also compact and easy to fold up so they can be taken anywhere., Certification ANSI S3.19, CE EN352-1, AS/NZS 1276 Rating DB : NRR 20 , SNR 26 , Class 5

ESG58812





## Disinfectant Wipes

leaning surfaces, parts, instruments in labs, laboratory lenses, and medical offices, these wipes easily clean liquids, dust and small particles. Plus, the anti-static dispensing design reduces electrostatic discharge. As a wipes chooser, our delicate task wipes are an efficient choice, thanks to our waste-reducing, one-at-a-time dispensing box. 286 Sheets/Box; 30 Boxes of Kimwipes Delicate Task Wipes/ Case; 8,580 Sheets/Case; White; Pop-Up Box easily wipe up liquids, dust and tiny particles and are designed for delicate tasks.; Each wipe is useful for polishing glassware, cleaning laboratory instruments and other delicate surfaces; The anti-static dispensing system reduces lint and electrostatic discharge (for sensitive environments like labs). One-at-a-time dispensing for minimized waste

ESG58931



## Paper Towel

Strong, absorbent towels. 16 packages of 250 white 1-ply towels each 21x24cm. Total count of 4000 pcs

ESG58933



## Lens cleaning tissue paper

Lens Cleaning Paper Wipe Camera Wipe Microscope Glasses Kit Cleaning Tissue Lens Glasses Tissue Goggles Glasses 100\*150mm ; 50sheets/book

ESB52815



## Gloves Disposable Blue Powder Free - Pk/ 100 .

Blue, Vinyl made of 100% DINP material, DINP is high quality , environment friendly and low toxicity plasticizers , for sensitive skin contain low protein allergens , meet EN45 /ASTM D5250, CE approved , gloves 100% DEHP free , Ambidextrous, non-sterile, single use , PK/100 Pcs

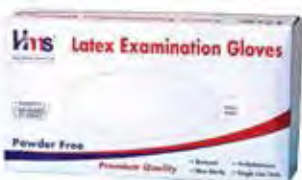
- |          |         |
|----------|---------|
| ESG58781 | Small   |
| ESG58782 | Medium  |
| ESG58783 | Large   |
| ESG58784 | X Large |



## Rubber Gloves For Chemical Use

With Rough Finish for Chemical Use Size 8,9,10,11

ESG58805



## Gloves Disposable Clear Powder Free - Pk/ 100 .

Clear natural rubber latex gloves for sensitive skin contain low protein allergens , meet ASTM D 3578 , CE standard , beaded cuff, textured surface for improved grip, ambidextrous , non- sterile, single use , PK/100 Pcs

- |          |         |
|----------|---------|
| ESG58785 | Small   |
| ESG58786 | Medium  |
| ESG58787 | Large   |
| ESG58788 | X Large |

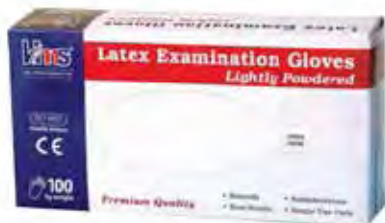


## Gloves Disposable Clear Powdered - Pk/ 100 .

Clear ,Vinyl , powdered with absorb-able corn starch, made of 100% DINP material ,DINP is high quality , environment friendly and low toxicity plasticizers , meet EN455 /ASTM D5250, CE approved , gloves 100% DEHP free , Ambidextrous , non-sterile, single use , PK/100 Pcs

- |          |         |
|----------|---------|
| ESG58789 | SMALL   |
| ESG58790 | MEDIUM  |
| ESG58791 | LARGE   |
| ESG58792 | X LARGE |





## Gloves Disposable White Powdered - Pk/ 100 .

White, natural rubber latex gloves for sensitive skin contain low protein allergens, meet ASTM D 3578, CE standard, beaded cuff, textured surface for improved grip, ambidextrous, non-sterile, single use, PK/100 Pcs

<b>ESG58793</b>	Small
<b>ESG58794</b>	Medium
<b>ESG58795</b>	Large
<b>ESG58796</b>	X Large



## Gloves Polythene

PE gloves, embossed for better grip, ambidextrous, non-sterile, single use ,PK/100 Pcs

<b>ESG58806</b>	Small
<b>ESG58807</b>	Medium
<b>ESG58808</b>	Large



## Gloves Neoprene

High quality natural rubber, Chloroprene coated natural rubber latex gloves with textured palm and fingers to increase grip. Cotton flock lined for increased comfort and reduced perspiration. Protection against some detergents alkalis and acids. Extra Long cuff for better arm protection. Chloroprene coated for fat and oil protection at palm. Improved abrasion resistance, Contains natural rubber latex which may cause allergic reactions including anaphylactic response.

<b>ESG58801</b>	Small
<b>ESG58802</b>	Medium
<b>ESG58803</b>	Large
<b>ESG58804</b>	X Large



## Gloves General Purpose - Pair

Medium weight gloves with raised surface pattern for excellent wet grip, Medium weight, coloured rubber household gloves with a cotton flock lined interior ,Contains latex, Multi-purpose rubber gloves. Per Pair

<b>ESG58797</b>	Small
<b>ESG58798</b>	Medium
<b>ESG58799</b>	Large
<b>ESG58800</b>	X Large

# Protective Clothing



## Apron Disposable White Universal Size PK/100

Disposable apron ,Polythene, Size: 66 x 107cm, White pack of 100

**ESG58810**



## Apron Disposable Blue Universal Size Pk/100

Disposable apron ,Polythene, Size: 66 x 107cm, Blue pack of 100

**ESG58809**







## Lab Coat Blue Poly-cotton Men Small

Coat made of poly-cotton with 3 patch pockets, Centre back vent, longer to provide protection, blue colour

<b>ESG58835</b>	Small
<b>ESG58836</b>	Medium
<b>ESG58837</b>	Large
<b>ESG58838</b>	X Large



## Lab Coat White Poly-cotton Men

Men lab coat made of poly-cotton with 3 patch pockets, Centre back vent, White

<b>ESG58816</b>	Small
<b>ESG58817</b>	Medium
<b>ESG58818</b>	Large
<b>ESG58819</b>	X Large



## Mask Paper Play

Surgical disposable face mask, high breath-ability, nose adapter for correct and comfort face adjustments, high filter action (BEF APP 95%), Ear loop type, 2 play, PK/50 Pcs

**ESG58843**



## Mask With Valve Pk/10

General purpose use including fine toxic particles, nose adapter for correct and comfort face adjustments

**ESG58842**



## Surgical Face Mask Ear Loop

Surgical disposable face mask, high breath-ability, nose adapter for correct and comfort face adjustments, high filter action (BEF APP 95%), Ear loop type, PK/50 Pcs

**ESG58844**



## Face Mask For Dust

Provide comfortable fit, easy breathing, light weight, clear vision, latex and fibre free, Multi-purpose use.

**ESG58848**



### Sharps Containers

Multi purpose sharp container , provide safe way to dispose contaminated and sharp instruments like blade, needle, scalpel...etc.

<b>ESG58853</b>	Small	Capacity 2.2 Litre
<b>ESG58854</b>	Medium	Capacity 6.2 Litre
<b>ESG58855</b>	Large	Capacity 10 Litre
<b>ESG58856</b>	X Large	Capacity 15 Litre



### Eyewash Bottle

Eyewash is ideal for irrigating eyes and general wound washing applications• 500ml bottle• Each

**ESG58864**



### Fixed Eyewash Station

Eyewash station comes complete with 2 x 500mL bottles of eyewash, Includes quick release wall hanging brackets

**ESG58866**



### Fire Blanket

Hinged lid for easy extraction

<b>ESG58880</b>	Size: 1.2 X 1.2M
<b>ESG58881</b>	Size: 1.2 X 1.8M



### Eye Emergency Signs

<b>ESG58857</b>	Size : 150 x 150mm, s/a	Board made of self adhesive vinyl size:150 x 150mm
<b>ESG58858</b>	Size : 200 x 150mm, PVC	Board made of PVC size: 200 x 150mm
<b>ESG58859</b>	Size : 200 x 150mm, s/a	Board made of self adhesive vinyl size: 200 x 150mm



### Eyewash Pod Station

Wall mounted eyewash pod station contents : Single use, just snap off top Size H250 x W325 x D25mm• Each

**ESG58865**



### Emergency Burns Kit

Kit consist of Burn shield dressing 200 x 200mm , 2 x burn shield dressing 100 x 100mm , 2 x burn dressings DIN specification 60 x 80mm, 8 x burn blot sachets, 1 x 7.5cm x 4cm conforming bandage, 1 x waterjel burn dressing, Safety pins, 1 pair of tufkut scissors, 2 pairs of vinyl disposable glove

**ESG58877**





### Eye Wash Station Cederroth

Compact eye emergency department  
Ensures eyewash is easily accessible when it's required  
Hygienic case with rubber edges protects contents from dust and dirt ;  
Supplied with two 500ml bottles of Cederroth Neutralising Eyewash  
Dispenser Dimensions: 56cm x 29cm x 12cm

ESG58863



### First Aid Center Complete - BS 8599 Compliant

British Standard compliant comprehensive First Aid Center for managing  
a wide range of Laboratory accidents and emergencies

ESG58867



### First Aid Kit Primary School

British Standard First Aid Kit for the classroom Ideal for dealing with  
common injuries for 6-12 years old Portable and durable soft case  
Includes children's plasters, digital oral thermometer & eyewash pod skit  
Dimensions: 23cm x 25cm x 15cm

ESG58868



### First Aid Kit Secondary School

British Standard First Aid Kit for secondary schools Ideal for dealing  
with common school injuries Durable premium Evolution case Includes  
HypaClens Eyewash Pods and HypaCool Instant Cold Pack skit  
Dimensions: 30cm x 23cm x 12cm.

ESG58869



### Emergency Asthma Kit

Pack with 10 Disposable Spacers Ideal for Nurseries, Schools and Colleges  
Provides guidance on recognising and treating an asthma attack Pack  
includes an Emergency Asthma Inhaler Kit, a Emergency Asthma Inhaler  
Log and a Treating An Asthma Attack Poster

ESG58874





### First Aid Kit Small

Made of strong ABS plastic which is shiny, smooth and easy to clean. The kit contains a neoprene seal which makes the kit dust-proof. The wall bracket is able to secure the kit on a common house wall. The internal crystal partitions permit a more flexible and scientific item arrangement. Additionally, two swivel catches are set for closing security. Recommended use: business companies, small factories, workshops, labs, and etc.

#### Contents:

- 01 Adhesive Tape 1 roll
- 02 Elastic Bandage 5 x 450cm 2 rolls
- 03 Elastic Bandage 7.5 x 450cm 2 rolls
- 04 Adhesive Plasters 25 pcs
- 05 Sterile Gauze (7.5 x 7.5cm) 5 pcs

- 06 Sterile Gauze (5 x 5cm) 5 pcs
- 07 Soap Sachet 3 pcs
- 08 Cleansing Wipe 3 pcs
- 09 Alcohol Wipe 4 pcs
- 10 Antiseptic Wipe 3 pcs
- 11 Safety Pins 10 pcs
- 12 Gloves 2 pairs
- 13 Scissors 1 pair
- 14 Sterile Tweezers 1 pair
- 15 Cotton Wool Pack 4 pkts
- 16 Adhesive Dressing, 10 x 6 cm 1 pkt
- 17 Haemostatic Lancet 2 pcs
- 18 Triangular Bandage 1 pc
- 19 Compress Bandage 8 x 10cm 1 roll
- 20 ABS Box 1 pc

ESG58870



### First Aid Kit Medium Size

Made of strong ABS plastic which is shiny, smooth and easy to clean. The kit contains a neoprene seal which makes the kit dust-proof. The wall bracket is able to secure the kit on a common laboratory wall. The internal crystal partitions permit a more flexible and scientific item arrangement. Additionally, two swivel catches are set for closing security. Recommended use: small factories, labs, and etc.

#### Content List:

- 01 Soap Sachets 10pcs
- 02 Alcohol Pad 20pcs
- 03 Adhesive Plaster 100pcs
- 04 Boston 1pc
- 05 Conforming Bandage 5cm 3pcs
- 06 Conforming Bandage 7.5cm 2pcs
- 07 Elastic Bandage 2pcs
- 08 Sterile Eye Pad 5pcs
- 09 Sterile Gauze Pad 20pcs
- 10 Cotton Ball 5pkts
- 11 Safety Pin 10pcs

- 12 Triangular Bandages TNT 4pcs
- 13 Antiseptic Wipes 7pcs
- 14 Scissors 1pair
- 15 Tweezers 2pairs
- 16 Sterile Scalpel 1pc
- 17 Lancet 1pc
- 18 Syringe 1pc
- 19 Latex Gloves 6pairs
- 20 Plastic Kidney Dish 1pc
- 21 Eco Splints 22cm 1pc
- 22 Blanket 2pcs
- 23 Wound Dressing 1pc
- 24 Strap Tourniquets 1pc
- 25 Burn Sheet 2pcs
- 26 ABD Pad 2pcs
- 27 Ice Bag 1pc
- 28 CRP Mask 1pc
- 29 Adhesive Tape 3pcs
- 30 Plaster 1pc
- 31 First Aid booklet 1pc
- 32 ABS Box 1pc

ESG58871



### First Aid Kit Class Room

The kit is plastic case, with handle and wall mounted, for up to 50 persons and the first aid guide. The kit includes the following:

- (1) Extra large plastic case
- (125) Adhesive plastic bandages
- (6) Fingertip fabric bandages
- (6) Knuckle fabric bandages
- (10) Elbow & knee plastic bandages
- (8) Gauze dressing pads, (4) 2-pks
- (3) Trauma pads
- (8) Non stick pads
- (3) 2" Conforming gauze roll bandages
- (2) 3" Conforming gauze roll bandages
- (1) 40" Triangular sling/bandage, w/2 safety pins
- (30) BZK antiseptic towelettes

- (1) First aid/burn cream, 0.9 gm. Packs, 10/box
- (2) Latex free elastic bandage
- (1) 1/2"x10 yd. First aid tape roll
- (2) 4"x5" Instant cold compress
- (1) 6"x9" Instant cold compress, 1/box
- (4) Sterile eye pads
- (2) Eye wash, 1/2 oz.
- (2) Exam quality vinyl gloves, 1 pair
- (1) Scissors
- (1) 4" Tweezers, plastic
- (2) Finger splints
- (1) One-way CPR face shield, 2 exam quality vinyl gloves, 3 BZK antiseptic towelettes, 1set /box

ESG58872





## School First Aid Room

Comprehensive school first aid room solution  
Contains 9 items to aid the delivery of first aid at school

Low level first aid couch designed for use with children

Compliant with HSE regulations

**Include :**

1. First Aid Room Contents
2. Low Level First Aid Couch
3. First Aid Sign
4. First Aid for Children Poster
5. Trolley, 3 Tier
6. Blanket, Scarlet Cotton
7. Polyester Filled Pillow
8. Metal Cabinet
9. Economy Couch Roll



The School First Aid Room contains the essential facilities for a school first aid room, including a first aid room sign, a first aid cabinet and a low level first aid couch designed for use with children.

The package provides 10% cost savings compared to purchasing each item individually.

### Furniture Dimensions:

- Low Level First Aid Couch: 183cm x 60cm x 40cm
- Trolley, 3 Tier: 50cm x 30cm x 74cm
- Metal Cabinet: 60cm x 50cm x 12.5cm

ESG59020



**Low First Aid Couch**  
Dimensions: 183cm  
(L) x 60cm (W) x  
40cm (H)



**First Aid Sign**  
Vinyl (Self Adhesive)  
20 x 30cm



**First Aid for Children  
Poster**  
Poster Dimensions: 60cm  
x 43cm (A2)



**Metal Cabinet**  
Sturdy design  
Supplied empty Size:  
60cm x 13cm x 50cm



**Trolley, 3 Tier**  
Epoxy coated, tubular  
metal frame Dimensions:  
50 x 30 x 73cm



**Blanket**  
100% Cotton Dimensions:  
150cm x 200cm



**Economy Couch Roll**  
Roll - 100 sheets per  
roll, 2 ply  
Size 40m x 50cm





### chemical spill kit

Everything you need to deal with everyday spills quickly and easily. The dispenser contains 4 identical spill kits, each capable of absorbing up to 1.5L

Design allows safer clean-up – less risk of injury

Fully disposable kits for hygienic and safe disposal

Kits supplied in a dispenser that can be positioned in areas where spills are likely to occur

Each Kit contains:

2 pieces of (chemical multi-format) Protective gloves

1 disposable dustpan and brush

1 disposal bag

1 hazardous waste disposal label

1 bag tie

ESG58915



### Mercury Collector

Spilled mercury is collected by pressing the foam pad in the screw top closure against the mercury. The mercury is drawn into and encapsulated in the pad by releasing the pressure and can then be released by screwing the closure on to the jar.

ESG58912



### First Aid Poster For Children

Durable laminated poster with full colour illustrations User friendly text and clear step-by-step instructions for workplace first aid Ensure your employees are ready in an emergency Compiled by qualified health and safety practitioners and updated with the latest guidance Poster Dimensions: 60cm x 43cm (A2)

ESG58873



### Chemical Spill Kit, 6 litre

Suitable for most non-aggressive chemical spills Available for spills up to 3.75 litres & up to 6 litres Durable Evolution hinged case, easy to transport to an incident Contains absorbent materials and disposal bag

ESG58914



### Biohazard Kit

All in one biohazards and sharps solution Multi-use kit contains all necessary contents for cleaning up five body fluid spillages as well as two Single Sharps Disposal Packs Includes disinfectant spray absorbent granules and HypaClean Disposable Packs

ESG58875



### Chemical Spills Poster

Durable laminated poster with full colour illustrations User friendly text and clear step-by-step instructions for workplace first aid Ensure your employees are ready in an emergency Compiled by qualified health and safety practitioners and updated with the latest guidance Poster Dimensions: 60cm x 43cm (A2)

ESG58913







### Emergency Shower Wall Mounted

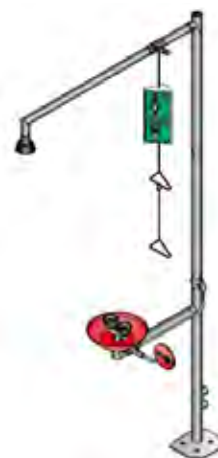
Body showers are indispensable where acids, steam, dust or other harmful substances are being handled.

Wall mounted straight Body shower, wall mounted with Self-draining shower head.

In brass with chemical resistant Poly-coat.

Min. Working pressure: 1 BA

ESG58886



### Emergency Shower With Eye Face Shower

Body and eye/face showers in one installation. Body and eye shower, Body shower with eye/face shower and bowl, modular. In brass and SS with

Chemical resistant red Poly-coat with self-draining shower head.

Eye wash with built-in FLOWFIX for regulation of water flow (26 l/Min). Bowl

in Stainless Steel with integrated outlet.

Min. Working pressure: 1.5 bar

ESG58887



### Eye Wash Shower Double Wall Mounted

Reliable and efficient showers for eyes and face. Which Comply to EN15154-2 and ANSI Z358.1 norms and which Provide the following IMPROVED features:

#### SAFETY

- Improved trigger lock
- Improved activation of the shower

#### OPERATION

- Stay-open dust cap
- Light weight
- Well-balanced construction
- Better spray pattern

#### RELIABILITY

- Easy-to-clean spray head
- Anti-lime scale design and material choice
- Improved functionality
- Longer lifetime

ESG58890

### Eye Wash Shower Double Table Mounted

Reliable and efficient showers for eyes and face. Which comply to EN15154-2 and ANSI Z358.1 norms and which Provide the following IMPROVED features:

#### SAFETY

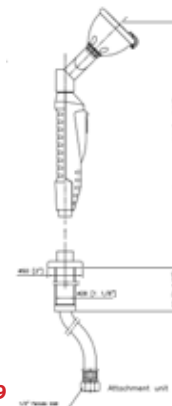
- Improved trigger lock
- Improved activation of the shower

#### OPERATION

- Stay-open dust cap
- Light weight
- Well-balanced construction
- Better spray pattern

#### RELIABILITY

- Easy-to-clean spray head
- Anti-lime scale design and material choice
- Improved functionality
- Longer lifetime



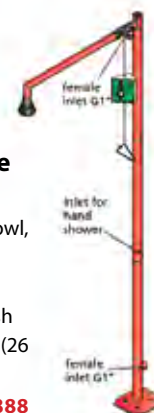
ESG58889

### Emergency Shower Without Eye Face Shower

Body shower with eye/face shower and bowl, modular.

In brass and SS with chemical resistant red Poly-coat with self-draining shower head. Eye wash with built-in FLOWFIX for regulation of water flow (26 l/Min). Min. Working pressure: 1.5 bar.

ESG58888



**Hazard tape :**

Hazard warning tape. 66 meters long and 25mm wide

- ESG58899** Corrosive Agents Tape
- ESG58900** Environment Tape
- ESG58901** Explosives Tape
- ESG58902** Flammable Tape
- ESG58903** Oxidising Tape
- ESG58904** Toxicity Tape CAT 1-3
- ESG58905** Toxicity Tape CAT 4
- ESG58906** Gases Tape
- ESG58907** Carcinogenic
- ESG58908** Caution Radioactive Material Tape



Safety

**Biohazard Bags Pack of one hundred**

Non Sterile Disposable PP Bags and Disposable PE bags for a wide variety of uses throughout the laboratory

**ESG58909****Resuscitation Poster**

Durable laminated poster with full colour illustrations User friendly text and clear step-by-step instructions for workplace first aid Ensure your employees are ready in an emergency Compiled by qualified health and safety practitioners and updated with the latest guidance Poster

**Dimensions:** 60cm x 43cm (A2)

**ESG58879****Gauze Swab Non Sterile**

Soft and breathable, folded edges, 19x15 mesh , , 8 Plies ,PK/100.

- ESG58917** Size : 5 x 5 cm
- ESG58918** Size : 7.5 X 7.5Cm
- ESG58919** Size : 10 x 10 cm

**Cotton Wool Absorbent**

100% cotton wool, hygienic purity with high absorbent capacity

**ESG58916****Cotton Wool Non Absorbent****ESG58924**



## First Aid Arm

Train students in the proper techniques used to control severe bleeding: direct pressure, and pressure points. The Life/form® First Aid Arm provides extremely realistic appearance and function to make your training exercise true-to-life. Looks and feels like a real arm. Synthetic blood can be made to flow from either the cut on the forearm or from the severed thumb, or from both at the same time. The severed thumb allows training in proper care and handling of separated body members. You can regulate rate of bleeding and create venous or arterial flow. Blood returns to collection tray for reuse. Pressure points function realistically at wrist and upper arm. Students will need to react just as in an actual emergency and select the appropriate method to control bleeding and treat the wound. Includes vinyl arm with wound, severed thumb, collection tray, arterial pulse bulb, venous supply bag, one quart artificial blood, teaching guide, and hard carry case

ESG59005



## Child CPR Training Manikin

CPR manikin features:

1. Clear anatomic characteristic, realistic touch feeling and lifelike skin color, vivid appearance;
2. Simulate vital signs: squeeze the rubber ball to simulate carotid artery pulse;
3. Can perform artificial respiratory and extracardial compression;
4. Operation mode: CPR training, can perform compression and inflation; CPR screen functions:
  1. Indicators show inflation volume, correct inflation volume: 150ml-200ml; When the inflation volume is insufficient, proper or excessive, indicators will accordingly be yellow, green or red, and alarm will ring if there are operation mistakes.
  2. Operation frequency:  $\geq 100$  times/ min
  3. Ratio of compression and artificial respiratory: 30:2/single or 15:2/ double
  4. Operation cycle: after 2 valid inflation, then 5 cycles CPR operation according to the ratio of compression and inflation 30:2 or 15:2;
  5. Power: 220V; 6V output powder via manostat; or use 4pcs 1 battery for field trainingE

ESO67139



## New Born CPR Training Manikin

CPR manikin features:

1. Clear anatomic characteristic, realistic touch feeling and lifelike skin color, vivid appearance;
2. Simulate vital signs: squeeze the rubber ball to simulate brachial artery pulse;
3. Can perform artificial respiratory, extracardial compression and airway open;
4. Operation mode: CPR training, can perform compression and inflation; CPR screen functions:
  1. Indicators show inflation volume, correct inflation volume: 150ml-200ml; When the inflation volume is insufficient, proper or excessive, indicators will accordingly be yellow, green or red, and alarm will ring if there are operation mistakes.
  2. Indicators show compression depth: correct compression depth: approximately 4 cm When the compression depth is insufficient, proper or excessive, indicators will accordingly be yellow, green or red, and alarm will ring if there are operation mistakes.
  3. Operation frequency:  $\geq 100$  times/ min.
  4. Ratio of compression and artificial respiratory: 30:2/single or 15:2/ double
  5. Operation cycle: after 2 valid inflation, then 5 cycles CPR operation according to the ratio of compression and inflation 30:2 or 15:2;
  6. Power: 220V; 6V output powder via manostat; or use 4pcs 1 battery for field training

ESO67289



## Half-body CPR

Training Manikin

CPR manikin features:

1. Can perform airway open
2. Can perform artificial breathing and external cardiac compression
3. While performing artificial aspiration, judge inflation volume by chest rise;
4. External chest compression, correct compression depth: 5-6cm
  - 1) Correct compression site, yellow indicator
  - 2) Proper compression depth, green indicator
  - 3) Excessive compression depth, red indicator
5. Operation frequency:  $\geq 100$  times/min, with "tick" sound
6. Power: battery

ESO64729







### Half-body CPR Training Manikin with Obstruction

The product can operate adult Heimlich maneuver. The Simulate manikin is designed according to the anatomy and physiological characteristics and fit for first aid for foreign body in the airway. Features:

1. Simulation of normal airway obstruction
2. Simulation of airway opening and chest compression
3. Simulation of the chest expansion when the airway is empty
4. Simulation of suffocation, foreign body obstruction in airway

ESO64727



### CPR Training Manikin Half-body Basic Economy

according to 2015 international CPR standard, Implement standard: AHA (American Heart Association) 2015 guideline for CPR and ECC

CPR manikin features:

1. Can perform airway open
2. Can perform artificial breathing and external cardiac compression
3. While performing artificial aspiration, judge inflation volume by chest rise;
4. External chest compression, correct compression depth:5-6cm
  - 1) Correct compression site, prompt correct buzzing sound
  - 2) Excessive compression site, prompt alarming buzzing sound
5. Operation frequency:  $\geq 100$  times/min, with "tick" sound
6. Power: battery

ESO64733



### AED Simulator and CPR Manikin Set

This manikin is suitable for BLS (Basic Life support) and AED (Automated External Defibrillator) training.

Features of AED Simulator

1. Opening or closing the cover will turn on AED instrument.
2. Simulate first-aid procedure; (only for training use) it has not high tension shock motion.
3. Automatically check the position of electrode pad.
4. There are 9 internal scripts, simulating different conditions.
5. Simulate: touch the patient's body when conducting AED; the position of electrode pad is wrong or right; it is need to defibrillate or not; machine has trouble; the electricity is low.

6. Electricity management function: The system automatically checks the batteries electricity. When the electricity is low, there will be sound indicating. During the interval of two times, system will enter saving power mode. If there isn't operation in 3 minutes, system will enter waiting mode.

7. Lithium battery

Features of half-body CPR manikin:

1. Simulate airway opening
2. External breast compression: sound prompting
3. Artificial respiration: observe the fluctuation of chest (Inhalation standard: 500/600ml-1000ml)
4. Operation frequency: 100 times per minute (the latest international standard)
5. Operation mode: exercise mode

ESO64728

### Adult Tracheotomy Care Simulator

Features:

1. Precise anatomy: pharynx, epiglottis, trachea, esophagus, position of tracheotomy, cricoid and left, right bronchial trees
2. Tracheotomy care
3. Sputum suction
4. Suction via oral cavity
5. Clean and care of tracheal cannula

ESO65418





## Multiple Casualty Simulation Kit

More versatile than the basic kit, this unit gives you more complex wounds for testing higher levels of skill in bandaging and patient care, while keeping initial expenditures low.

Contents:

Bleeding strap-on wounds complete with reservoir bags with pump assembly

1 open amputation

1 compound fracture of tibia, lower leg

1 compound fracture of humerus, upper arm

1 sucking wound of chest

1 gunshot wound of palm

Makeup Accessories:

1 bottle coagulant makeup blood ; 3 spatulas ; 1 pkg. of methyl cellulose for blood thickening ; 3 wood tongue depressors ; 3 packages powder to make three gallons of simulated blood ; 1 casualty simulation wax ; 1 body adhesive for stick-on wounds ; 1 atomizer mist sprayer ; 24 assorted stick-on lacerations and open fracture wounds ; 1 pkg. broken Plexiglas® for simulating glass embedded wound ; 1 ea. grease paint colors: white, blue, brown, and red ; Size: 21 in. x 12 in. x 10 in.



## Basic Casualty Simulation Kit

The most economical way to get started in simulated injuries. Reusable wounds and refillable accessories let you practice bandaging and splinting techniques repeatedly.

Contents:

1 compound fracture tibia complete with reservoir and pump assembly

1 Bottle coagulant makeup blood

1 Pkg. powder to make 1 gal. simulated blood

12 Assorted stick-on lacerations and open fracture wounds

1 Casualty simulation wax

1 Pkg. broken Plexiglas® for simulating glass embedded wound

1 ea. grease paint colors: white, blue, brown and red

1 Body adhesive for stick-on wounds

1 Atomizer mist sprayer

3 Spatulas

3 Tongue depressors

1 pkg. of methyl cellulose for blood thickening

Size: 15 in. x 10 in. x 5 in.



## Trauma Moulage Kit

Can be used with any Rescue manikin, the Trauma Manikin .

Application of these realistic bleeding moulages to a full-body manikin facilitates quick identification, diagnosis, and dressing of wounds by trainees. Kit includes compound fractures, contusions, lacerations, evisceration, sucking chest wound, impalement, crushed foot, jaw wound, and projectile entry and exit of arm. These bleeding wounds strap on and are complete with pump assembly. Simulated blood is included. Non-bleeding strap-on wounds include 2nd and 3rd degree burns of the chest, back, forearm, and face. Manikin sold separately.

ESG59014

ESG59016





## ADVANCE TRAUMA SIMULATOR

Manikin Features:

1. Washing, disinfection, hemostasia, enswathement, etc.

2. Open fracture, truncation trauma

Trauma Features:

1. Facial burn: I, II, III degree

2. Laceration in forehead

3. The wound in jaw

4. Opened clavicular fracture and contusion, wound on the chest

5. The wound in abdomen with small intension evisceration ntusion wounds in left ankle and foot.

6. Opened humerus fracture of right upper arm

7. Opened fracture of right hand (including parenchyma, laceration, fracture and bone tissue

8. Gun wound in the right palm

9. Opened fracture of right thighbone

10. Compound femur fracture of left thigh

11. Metal pricking wound in right thigh

12. Opened tibia fracture of right leg

13. Opened fracture of right foot with truncating trauma on small phalanx

14. Burns in left forearm: I, II, III degree

15. Truncating trauma on left thigh

16. Closed tibia fracture of right leg and co

ESO64723



Safety



## Breast Examination Simulator

Features:

Palpation of malignant tumor, benign tumor, lymphaden and lobulus accrementition.

Size: 37cm\*18.5cm\*29.5cm

G.W.:4kg

ESO64757



## Advanced Inspection and Palpation of Breast Simulator

Features:

1. This model can be used to exercise mammary tumors palpation skill.

2. In order to facilitate training process, we implant benign tumors and malignant tumors into the mammary gland.

3. Basing on various position, size, texture, the students can identify the tumor is benign or malignant.

ESO64759







### Pharmacy & Lab Refrigerator (+25/2C)

Temperature setting range +2 to +15 °C

Gas : environmentally friendly R290 gas

Exterior : White skinplate metal sheet

Interior : Stainless steel AISI 304 for perfect highiene

CE certified. Company have ISO 9001:2015 certification

2 year warranty on parts

Forced air cooling circulation

Automatic defrost

Extra probe for product temperature simulation

Inbuilt data logger, that creates a pdf file with temperature graphics and alarms.USB for data retrieval

Battery back up to keep controller and alarms working for at least 26 hours after power failure

Safety thermostat to prevent temperatures to go below 2 degrees.

SKU NO	Ext.Dimn.	Int.Dimn.	NO. Shelves	Vol
<b>ESG59027</b>	W600 x D600 x H835 mm	W480 x D410 x H690 mm	2 + 1	122 Ltr
<b>ESG59028</b>	W600 x D700 x H1510 mm	W480 x D500 x H1358 mm	5	324 Ltr
<b>ESG59029</b>	W600 x D700 x H1865 mm	W480 x D500 x H1724 mm	5	416 Ltr
<b>ESG59030</b>	W720 x D840 x H2020 mm	W560 x D665 x H1440 mm	4	535 Ltr
<b>ESG59031</b>	W1440 x D840 x H2020 mm	W1255 x D665 x H1440 mm	8	1225 Ltr





Safety

### Pharmacy & Lab Refrigerator (+25/2C) Glass Door

Temperature setting range +2 to +15 °C

Gas: environmentally friendly R290 gas

Exterior: White skinplate metal sheet

Interior: Stainless steel AISI 304 for perfect hygiene

CE certified. Company have ISO 9001:2015 certification

2 year warranty on parts

Forced air cooling circulation

Automatic defrost

Extra probe for product temperature simulation

Inbuilt data logger, that creates a pdf file with temperature graphics and alarms.

USB for data retrieval

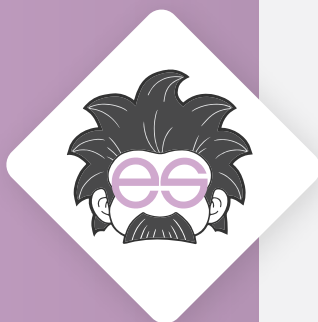
Battery back up to keep controller and alarms working for at least 26 hours after power failure

Safety thermostat to prevent temperatures to go below 2 degrees.

SKU NO	Ext.Dimn.	Int.Dimn.	NO. Shelves	Vol
<b>ESG59027G</b>	W600 x D600 x H835 mm	W480 x D410 x H690 mm	2 + 1	122 Ltr
<b>ESG59028G</b>	W600 x D700 x H1510 mm	W480 x D500 x H1358 mm	5	324 Ltr
<b>ESG59029G</b>	W600 x D700 x H1865 mm	W480 x D500 x H1724 mm	5	416 Ltr
<b>ESG59030G</b>	W720 x D840 x H2020 mm	W560 x D665 x H1440 mm	4	535 Ltr
<b>ESG59031G</b>	W1440 x D840 x H2020 mm	W1255 x D665 x H1440 mm	8	1225 Ltr



# CHEMICALS



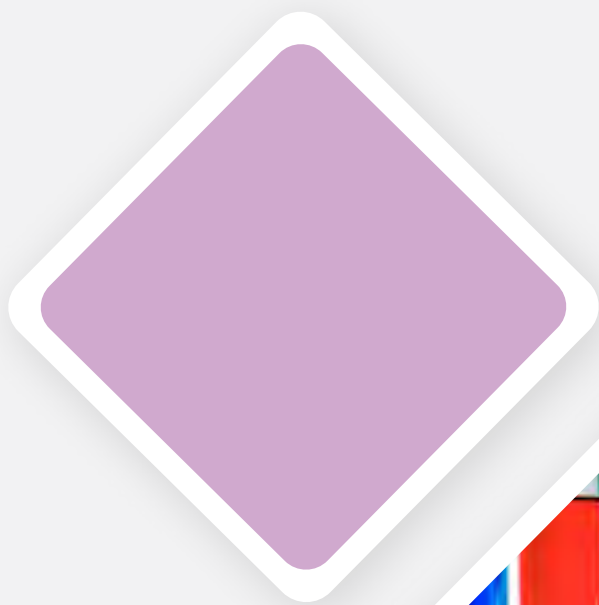
EduScience UK<sup>®</sup>



[www.eduscienceuk.com](http://www.eduscienceuk.com)

**We Contribute  
To Future Education**





**Call Us Today +44 (0)203 8685740**

## EUROLAB CHEMICALS

- In-house chemist & laboratory
- Range of grades to suit all budgets & requirements
- 26 years manufacturing experience
- Own recipes for many reagents
- High quality bottles, if possible UN approved
- Safety first - bagged in case of carrier damage
- MSDS automatically emailed & online
- Clear & compliant labeling

## CLP

On 20th January 2009 the CLP element of REACH, European Regulation (EC) No 1272/2008 came into force concerning Classification, Labelling and Packaging (CLP) of chemical substances. It is based upon the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and ensures worldwide uniformity.

What does this mean?

As of 1st December 2010 all substances supplied with the E.U. are now classified and labelled in accordance with the new regulations. The familiar orange hazard symbols have been replaced with the GHS Pictograms shown opposite. Risk and Safety phrases were also replaced, with Hazard and Precautionary statements, as shown on pages 423 and 424.

## ADR &amp; LQ

European Agreement concerning the international carriage of Dangerous goods by Road (ADR). If a substance is classified as hazardous for transport it will be assigned a UN number, this dictates the regulations that have to be applied when the substance is transported. Each UN number is assigned a "Limited Quantity" (LQ) which indicates the maximum pack size of a substance that can be transported without special restrictions. If the LQ is zero, or the pack size exceeds the LQ, then the substance must be transported by a specially trained and licensed courier.

**What does this mean for you...?**

If over the limited quantity (LQ) there is a £14.95 surcharge per order.

The cost to us can be as much as £30.00 and as such we are absorbing a large proportion of this cost. In recognition of those customers placing larger orders we will absorb the whole cost, so there is no surcharge on orders over £300.00

Chemicals are clearly marked if a surcharge is applicable. Our next day delivery service is not available when shipping ADR chemicals.

**What's New?**

From June 2015 the restrictions on some chemicals have changed, namely the flammable substances, e.g. IMS & Acetone. Consequently, where possible, we have changed our pack sizes to comply with the new LQ restriction of 1L to avoid the need for specialist transport and thus the £14.95 surcharge.

## Permits

A permit is required by law to purchase certain chemicals. Denatured Alcohol (IDA) aka Methylated Spirit is one such chemical. You only require a permit if purchasing more than 5 litres per annum. However as part of our licencing compliance we require a declaration that no more than 5L will be purchased.

## MSDS

Material Safety Data Sheets (MSDS) provide information on chemicals that help the users of those chemicals to make a risk assessment. They describe the hazards the chemical presents, and give information on handling, storage and emergency measures in case of accident.

Here at Breckland Scientific we take our responsibility very seriously so have invested in an automated system which will provide you with up-to-date Safety Data Sheets via e-mail when despatched. They are also available on our website.

POTASSIUM METAL IN LIQUID PARAFFIN (Potass m)				
3	K = 39.1g/mol	9	4	5
6	UN Class: 4.3/UN2257 PG-1	10	EC No.: 231-119-8	12
7	Cas No.: 7440-09-7	11	Index No.: 019-001-00-2	Danger
8	Hazard: H260 H314 EUH014 Precaution: P223 P231+P232 P280 P305+P351+P338			
3	Cat No.	14	Type	15
	CHE291535			Assay
				98%
				Info.
				SURCHARGE

## 1 Product Name

## 2 Alternative Name(s)

## 3 Chemical Formula

## 4 GHS Pictograms

These are located on the chemical bottle.

## 5 Flash Point

The flash point, where available, is here. The flash point of a volatile liquid is the lowest temperature at which its vapours form an ignitable mixture in air.

## 6 UN Class / UN Number / Packing Group

Dangerous goods are divided into 9 UN Classes and several sub-divisions UN numbers are the 4 digits that identify the substance.

Packing Group refers to the degree of danger:

PG-1 = High Danger PG-2 = Medium Danger PG-3 = Low Danger

Class 1 Explosive	Class 5.1 Oxidising Agent
Class 2 Gases	Class 5.2 Organic Peroxides
Class 3 Flammable Liquids	Class 6.1 Poisonous
Class 4.1 Flammable Solids	Class 7 Radioactive
Class 4.2 Spontaneously Combustible	Class 8 Corrosive
Class 4.3 Dangerous when Wet	Class 9 Misc. Dangerous Substance

## 7 Cas No.

Chemical identifier as defined by the American Chemical Society

## 8 Hazard &amp; Precautionary Statement Numbers

Health & safety statements for the specific chemical. Absence of any statements does NOT always mean the substance is harmless. See pages ix and x for definitions of the Hazard & Precautionary Statement numbers.

## 9 Molecular Weight

## 10 EC No.

Chemical identifier as defined by the European Chemicals Agency (ECHA)

## 11 Index No.

Is the identification code given to the substance in Part 3 of Annex VI of the Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation (EC) No 1272/2008

## 12 Signal Word

If the chemical has a more severe hazard, the label includes the signal word 'Danger'; in case of less severe hazards, the signal word is 'Warning'

## 13 Catalogue No.

## 14 Type
















































## 15 Assay







































The Assay is the quality or purity of a product. This is often linked to the type of the chemical (above).

## 16 Info

If a delivery surcharge is applicable it is clearly marked.



BOX LABEL		UN CLASS	DESCRIPTION OF DANGER	CATEGORY	GHS PICTOGRAM (On Bottle)
ADR	LQ (Limited Quantity)				
no transport allowed		1	Unstable explosives		 GHS01
		1	Explosives of Divisions 1.1, 1.2, 1.3, 1.4		 GHS01
		1	Self reactive substances and mixtures	A, B	 GHS01
		1	Organic Peroxide	A, B	 GHS01
		2	Flammable gases	1	 GHS02
		2	Flammable aerosols categories	1, 2	 GHS02
		2	Gases under pressure		 GHS04
		3	Flammable liquids	1, 2, 3	 GHS02
		3	Pyrophoric liquids	1	 GHS02
		4.1	Flammable solids	1, 2	 GHS02
		4.1	Self-reactive substances and mixtures	B, C, D, E, F	 GHS02
		4.2	Pyrophoric solids	1	 GHS02
		4.2	Self-heating substances and mixtures	1, 2	 GHS02
		4.3	Substances and mixtures which in contact with water emit flammable gases	1, 2, 3	 GHS02
		5.1	Oxidising gases	1	 GHS03
		5.1	Oxidising liquids	1, 2, 3	 GHS03
		5.1	Oxidising solids	1, 2, 3	 GHS03

BOX LABEL		UN CLASS	DESCRIPTION OF DANGER	CATEGORY	GHS PICTOGRAM (On Bottle)
ADR	LQ (Limited Quantity)				
		5.2	Organic peroxides	B, C, D, E, F	 GHS02
		6.1	Acute toxicity (oral, dermal, inhalation)	1, 2, 3	 GHS06
		6.1	Acute toxicity (oral, dermal, inhalation)	4	 GHS07
		6.1	Skin irritation	2	 GHS07
		8	Corrosive to metals	1	 GHS05
		8	Skin corrosion	1A, 1B, 1C	 GHS05
		8	Serious eye damage	1	 GHS05
		n/a	Eye irritation	2	 GHS07
		n/a	Skin sensation	1	 GHS07
		n/a	Specific Target Organ Toxicity - Single exposure	3	 GHS07
		n/a	Respiratory sensitisation	1	 GHS08
		n/a	Germ cell mutagenicity	1A, 1B, 2	 GHS08
		n/a	Carcinogenicity	1A, 1B, 2	 GHS08
		n/a	Reproductive toxicity	1A, 1B, 2	 GHS08
		n/a	Specific Target Organ Toxicity - Single exposure	1, 2	 GHS08
		n/a	Aspiration hazard	1	 GHS08
		n/a	Environmentally hazardous	1, 2, 3	 GHS09





**HAZARD STATEMENTS - Physical Hazards**

H200	Unstable explosives.
H201	Explosive; mass explosion hazard.
H202	Explosive, severe projection hazard.
H203	Explosive; fire, blast or projection hazard.
H204	Fire or projection hazard.
H205	May mass explode in fire.
H220	Extremely flammable gas.
H221	Flammable gas.
H222	Extremely flammable aerosol.
H223	Flammable aerosol.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H240	Heating may cause an explosion.
H241	Heating may cause a fire or explosion.
H242	Heating may cause a fire.
H250	Catches fire spontaneously if exposed to air.
H251	Self-heating; may catch fire.
H252	Self-heating in large quantities; may catch fire.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H261	In contact with water releases flammable gases.
H270	May cause or intensify fire; oxidiser.
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H280	Contains gas under pressure; may explode if heated.
H281	Contains refrigerated gas; may cause cryogenic burns or injury.
H290	May be corrosive to metals.

**HAZARD STATEMENTS - Health Hazards**

H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child <state specific effect if known.
H361	Suspected of damaging fertility or the unborn child.
H362	May cause harm to breast-fed children.
H370	Causes damage to organs.
H371	May cause damage to organs.
H372	Causes damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

**Additional EU Hazard Classes**

EUH001	Explosive when dry.
EUH006	Explosive with or without contact with air.
EUH014	Reacts violently with water.
EUH018	In use may form flammable/explosive vapour-air mixture.
EUH019	May form explosive peroxides.
EUH029	Contact with water liberates toxic gas.
EUH031	Contact with acids liberates toxic gas.
EUH032	Contact with acids liberates very toxic gas.
EUH044	Risk of explosion if heated under confinement.
EUH059	Hazardous to the ozone layer.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH070	Toxic by eye contact.
EUH071	Corrosive to the respiratory tract.
EUH201	Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.
EUH201A	Warning! Contains lead.
EUH202	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.
EUH203	Contains chromium (VI). May produce an allergic reaction.
EUH204	Contains isocyanates. May produce an allergic reaction.
EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).
EUH207	Warning! Contains cadmium. Dangerous fumes are formed during use. See information supplied by the manufacturer. Comply with the safety instructions.
EUH208	Contains <name of sensitising substance>. May produce an allergic reaction.
EUH209	Can become highly flammable in use.
EUH209A	Can become flammable in use.
EUH210	Safety data sheet available on request.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

**PRECAUTIONARY STATEMENTS - General**

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

**PRECAUTIONARY STATEMENTS - Prevention**

P103	Read label before use.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P211	Do not spray on an open flame or other ignition source.
P220	Keep/Store away from clothing/.../combustible materials.
P221	Take any precaution to avoid mixing with combustibles...
P222	Do not allow contact with air.
P223	Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P230	Keep wetted with...
P231	Handle under inert gas.
P231+P232	Handle under inert gas. Protect from moisture.
P232	Protect from moisture.
P233	Keep container tightly closed.
P234	Keep only in original container.
P235	Keep cool.
P235+P410	Keep cool. Protect from sunlight.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/.../equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P244	Keep reduction valves free from grease and oil.
P250	Do not subject to grinding/shock/.../friction.
P251	Pressurized container: Do not pierce or burn, even after use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.



**PRECAUTIONARY STATEMENTS - Prevention**

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P262	Do not get in eyes, on skin, or on clothing.
P263	Avoid contact during pregnancy/while nursing.
P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P282	Wear cold insulating gloves/face shield/eye protection.
P283	Wear fire/flame resistant/retardant clothing.
P284	Wear respiratory protection.
P285	In case of inadequate ventilation wear respiratory protection.

**PRECAUTIONARY STATEMENTS - Response**

P301	IF SWALLOWED:
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301+ IF	SWALLOWED: rinse mouth. Do NOT induce vomiting.
P330+P331	
P302	IF ON SKIN:
P302+P334	IF ON SKIN: Immerse in cool water/wrap in wet bandages.
P302+P350	IF ON SKIN: Gently wash with plenty of soap and water.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P303	IF ON SKIN (or hair):
P303+	IF ON SKIN (or hair): Remove/Take off immediately all
P361+P353	contaminated clothing. Rinse skin with water/shower.
P304	IF INHALED:
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305	IF IN EYES:
P305+	
P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P306	IF ON CLOTHING:
P306+P360	IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P307	IF exposed:
P307+P311	IF exposed: Call a POISON CENTER or doctor/physician.
P308	IF exposed or concerned:
P308+P313	IF exposed or concerned: Get medical advice/attention.
P309	IF exposed or if you feel unwell:
P309+P311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P310	Immediately call a POISON CENTER or doctor/physician.
P311	Call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P313	Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P315	Get immediate medical advice/attention.
P320	Specific treatment is urgent (see ... on this label).
P321	Specific treatment (see ... on this label).
P322	Specific measures (see ... on this label).
P330	Rinse mouth.
P331	Do NOT induce vomiting.
P332	If skin irritation occurs:
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333	If skin irritation or rash occurs:
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P334	Immerse in cool water/wrap in wet bandages.
P335	Brush off loose particles from skin.

**PRECAUTIONARY STATEMENTS - Response**

P335+P334	Brush off loose particles from skin. Immerse in cool water/ wrap in wet bandages.
P336	Thaw frosted parts with lukewarm water. Do not rub affected area.
P337	If eye irritation persists:
P337+P313	If eye irritation persists: Get medical advice/attention.
P338	Remove contact lenses, if present and easy to do. Continue rinsing.
P340	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P341	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342	If experiencing respiratory symptoms:
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P350	Gently wash with plenty of soap and water.
P351	Rinse cautiously with water for several minutes.
P352	Wash with plenty of soap and water.
P353	Rinse skin with water/shower.
P360	Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P361	Remove/Take off immediately all contaminated clothing.
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P370	In case of fire:
P370+P376	In case of fire: Stop leak if safe to do so.
P370+P378	In case of fire: Use ... for extinction.
P370+P380	In case of fire: Evacuate area.
P370+	In case of fire: Evacuate area. Fight fire remotely due to the
P380+P375	risk of explosion.
P371	In case of major fire and large quantities:
P371+	In case of major fire and large quantities: Evacuate area.
P380+P375	Fight fire remotely due to the risk of explosion.
P372	Explosion risk in case of fire.
P373	DO NOT fight fire when fire reaches explosives.
P374	Fight fire with normal precautions from a reasonable distance.
P375	Fight fire remotely due to the risk of explosion.
P376	Stop leak if safe to do so.
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P378	Use ... for extinction.
P380	Evacuate area.
P381	Eliminate all ignition sources if safe to do so.
P390	Absorb spillage to prevent material damage.
P391	Collect spillage.

**PRECAUTIONARY STATEMENTS - Storage**

P401	Store ...
P402	Store in a dry place.
P402+P404	Store in a dry place. Store in a closed container.
P403	Store in a well-ventilated place.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P404	Store in a closed container.
P405	Store locked up.
P406	Store in corrosive resistant/... container with a resistant inner liner.
P407	Maintain air gap between stacks/pallets.
P410	Protect from sunlight.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.
P411	Store at temperatures not exceeding ...°C/...°F.
P411+P235	Store at temperatures not exceeding ...°C/...°F. Keep cool.
P412	Do not expose to temperatures exceeding 50°C/ 122°F.
P413	Store bulk masses greater than ... kg/... lbs at temperatures not exceeding ...°C/...°F.
P420	Store away from other materials.
P422	Store contents under ...
P501	Dispose of contents/container to ...



**ACACIA POWDER (GUM ARABIC)**

N/A



**UN Class:** N/A **EC No.:** 232-519-5 **Danger**  
**Cas No.:** 9000-01-5 **Index No.:** Not listed  
**Hazard:** H318  
**Precaution:** P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54794		99%		100g

**ACETIC ACID 1.0M (1.0N) (ETHANOIC ACID)**

**UN Class:** N/A **EC No.:** 200-580-7  
**Cas No.:** 64-19-7 **Index No.:** 607-002-00-6  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54805		98%	Std solution	2.5L

**ACETALDEHYDE (ETHANAL)** $\text{CH}_3\text{CHO} = 44.05\text{g/mol}$ 

**UN Class:** 3 /UN1089 PG-I **EC No.:** 200-836-8 **Danger**  
**Cas No.:** 75-07-0 **Index No.:** 605-003-00-6  
**Hazard:** H224 H319 H335 H351  
**Precaution:** P210 P261 P281 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54795		98%	SURCHARGE	500 ml

**ACETIC ANHYDRIDE (ETHANOIC ANHYDRIDE)** $(\text{CH}_3\text{CO})_2\text{O} = 102.09\text{g/mol}$ 

**UN Class:** 8(3) /UN1715 PG-II **EC No.:** 203-564-8 **Danger**  
**Cas No.:** 108-24-7 **Index No.:** 607-008-00-9  
**Hazard:** H314 H314 H226 H302 H332  
**Precaution:** P280 P305+P351+P338 P261 P304+P340+P310 P303+P361+P353 P370+P378

Cat No.	Grade	Assay	Info.	Per
ESC54806		97%		500ml

**ACETAMIDE (ETHANAMIDE)** $\text{CH}_3 \cdot \text{CO} \cdot \text{NH}_2 = 59.07\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 200-473-5 **Warning**  
**Cas No.:** 60-35-5 **Index No.:** 616-022-004  
**Hazard:** H351  
**Precaution:** P281

Cat No.	Grade	Assay	Info.	Per
ESC54798		97%		100g

**ACETONE (PROPANONE)** $(\text{CH}_3)_2\text{CO} = 58.08\text{g/mol}$ 

**UN Class:** 3 /UN1090 PG-II **EC No.:** 200-662-2 **Danger**  
**Cas No.:** 67-64-1 **Index No.:** 606-001-00-8  
**Hazard:** H225 H319 H336  
**Precaution:** P210 P305+P351+P338 P261

Cat No.	Grade	Assay	Info.	Per
ESC54807		99%		2.5L

**ACETANILIDE (N-PHENYLACETAMIDE)** $\text{C}_6\text{H}_5 \cdot \text{NH} \cdot \text{CO} \cdot \text{CH}_3 = 135.17\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 203-150-7 **Warning**  
**Cas No.:** 103-84-4 **Index No.:** Not listed  
**Hazard:** H315 H319  
**Precaution:** P305+P351+P338 P301+P312 P280

Cat No.	Grade	Assay	Info.	Per
ESC54801		98%		100g

**ACETONITRILE (CYANOMETHANE)** $\text{CH}_3\text{CN} = 41.05\text{g/mol}$ 

**UN Class:** 3 /UN1648 PG-II **EC No.:** 200-835-2 **Danger**  
**Cas No.:** 75-05-8 **Index No.:** 608-001-00-3  
**Hazard:** H225 H319 H302 H312 H332  
**Precaution:** P210 P280 P305+P351+P338 P309+P310

Cat No.	Grade	Assay	Info.	Per
ESC54810		98%		2.5L

**ACETIC ACID GLACIAL (ETHANOIC ACID)** $\text{CH}_3\text{COOH} = 60.05\text{g/mol}$ 

**UN Class:** 8(3) /UN2789 PG-II **EC No.:** 200-580-7 **Danger**  
**Cas No.:** 64-19-7 **Index No.:** 607-002-00-6  
**Hazard:** H226 H314  
**Precaution:** P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC54804		99.5%		1L

**ACETYL CHLORIDE (ETHANOYL CHLORIDE)** $\text{CH}_3\text{COCl} = 78.5\text{g/mol}$ 

**UN Class:** 3(8) /UN1717 PG-II **EC No.:** 200-865-6 **Danger**  
**Cas No.:** 75-36-5 **Index No.:** 607-011-00-5  
**Hazard:** H225 H314 EUH014  
**Precaution:** P210 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC54813		98%		500ml





**O-ACETYSALICYLIC ACID (2-(ACETOXY)-BENZOIC ACID)** $C_9H_8O_4 = 180.16\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 200-064-1 **Warning**  
**Cas No.:** 50-78-2 **Index No.:** Not listed  
**Hazard:** H302 H315 H319 H335  
**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54814		99.5%		100g

**ADENOSINE-5-TRIPHOSPHORIC ACID (A.T.P.)** $C_{10}H_{14}N_5Na_2O_{13}P_3 \cdot 3H_2O = 605.19\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 213-579-1  
**Cas No.:** 34369-07-8 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54815		98%		5g

**ADIPIIC ACID (HEXANEDIOIC ACID)** $HOOC(CH_2)_4COOH = 146.14\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 204-673-3 **Warning**  
**Cas No.:** 124-04-9 **Index No.:** 607-144-00-9  
**Hazard:** H319  
**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54816		99%		250g

**AGAR POWDER**

**UN Class:** N/A **EC No.:** 232-658-1  
**Cas No.:** 9002-18-0 **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54818		> 97%		100g
ESC54819		> 97%		250g

**DL-ALANINE ((±)-2-AMINOPROPIONIC ACID)** $CH_3CH(NH_2)COOH = 89.09\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 206-126-4  
**Cas No.:** 302-72-7 **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55260		97%		25g

**L-ALANINE ((S)-2-AMINOPROPIONIC ACID)** $CH_3CH(NH_2)COOH = 89.09\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 200-273-8  
**Cas No.:** 56-41-7 **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55464		98%		25g

**ALBUMEN EGG POWDER (EGG WHITE)**

**UN Class:** N/A **EC No.:** 292-692-7  
**Cas No.:** 9006-59-1 **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54822		Protein > 80%		250g

**ALIZARIN RED S C.I.58005 (1,2-DIHYDROXYANTHRAQUINONE)** $C_{14}H_7NaO_7S = 342.3\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 204-981-8 **Warning**  
**Cas No.:** 130-22-3 **Index No.:** Not listed  
**Hazard:** H315 H319 H335  
**Precaution:** P261 P305+P351+P338 P280 P302+P352 P304+P340  
**Notes:** Yellow to orange red

Cat No.	Grade	Assay	Info.	Per
ESC54823		> 98%	pH 4.0-6.0	100g

**ALUMINIUM METAL - FOIL 0.1MM**

Al = 26.98g/mol

**UN Class:** N/A **EC No.:** 231-072-3  
**Cas No.:** 7429-90-5 **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54834		N/A	0.1mm	250g

**ALUMINIUM METAL - POWDER**

Al = 26.98g/mol



**UN Class:** 4.3 /UN1396 PG-II **EC No.:** 231-072-3 **Danger**  
**Cas No.:** 7429-90-5 **Index No.:** 013-002-00-1  
**Hazard:** H261 H228  
**Precaution:** P280 P210+P240+P241

Cat No.	Grade	Assay	Info.	Per
ESC54835		98%	Fine	250g
ESC54836		98%	Fine	500g



**ALUMINIUM AMMONIUM SULPHATE (AMMONIUM ALUM)** $\text{AlNH}_4(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O} = 453.33\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 232-055-3 **Warning**  
**Cas No.:** 7784-26-1 **Index No.:** Not listed  
**Hazard:** H315 H319 H335  
**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54825		98%		500g

**ALUMINIUM CHLORIDE ANHYDROUS (TRICHLOROALUMINUM)** $\text{AlCl}_3 = 133.34\text{g/mol}$ 

**UN Class:** 8 / UN1726 PG-II **EC No.:** 231-208-1 **Danger**  
**Cas No.:** 7446-70-0 **Index No.:** 013-003-00-7  
**Hazard:** H314 H372+H378  
**Precaution:** P260 P280 P305+P351+P338 P302+P352

Cat No.	Grade	Assay	Info.	Per
ESC54831		98%		500g

**ALUMINIUM CHLORIDE 6-WATER (TRICHLOROALUMANE)** $\text{AlCl}_3 \cdot 6\text{H}_2\text{O} = 241.43\text{g/mol}$ 

**UN Class:** 8 / UN3260 PG-III **EC No.:** 231-208-1 **Danger**  
**Cas No.:** 7784-13-6 **Index No.:** Not listed  
**Hazard:** H314 H315 H319 H335 H412  
**Precaution:** P273 P305+P351+P338 P261

Cat No.	Grade	Assay	Info.	Per
ESC54828		95%		100g

**ALUMINIUM HYDROXIDE (ALUMINIC ACID)** $\text{Al}(\text{OH})_3 = 78\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 244-492-7 **Warning**  
**Cas No.:** 21645-51-2 **Index No.:** Not listed  
**Hazard:** H319  
**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54833		95%		500g

**ALUMINIUM NITRATE 9-WATER** $\text{Al}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O} = 375.13\text{g/mol}$ 

**UN Class:** 5.1 / UN1438 PG-III **EC No.:** 236-751-8 **Warning**  
**Cas No.:** 7784-27-2 **Index No.:** Not listed  
**Hazard:** H272 H315 H319  
**Precaution:** P220 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54837		95%		500g

**ALUMINIUM OXIDE CALCINED (ALUMINA)** $\text{Al}_2\text{O}_3 = 101.96\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 215-691-6  
**Cas No.:** 1344-28-1 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** Not considered hazardous

Cat No.	Grade	Assay	Info.	Per
ESC54839		97%		500g

**ALUMINIUM POTASSIUM SULPHATE 12-WATER (POTASH ALUM)** $\text{AlK}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O} = 474.39\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 233-141-3  
**Cas No.:** 7784-24-9 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54840		99%		500g

**ALUMINIUM SULPHATE 16-WATER (ALUNOGENITE)** $\text{Al}_2(\text{SO}_4)_3 \cdot 16\text{H}_2\text{O} = 630.4\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 233-135-0 **Danger**  
**Cas No.:** 16828-11-8 **Index No.:** Not listed  
**Hazard:** H318  
**Precaution:** P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54843		98%		500g

**AMINO ACID SET**

L-Alanine, L-Aginine, L-Asparagine, L-Cystine, L-Glutamic Acid, Glycine, L-Histidine, L-Leucine, L-Lysine, DL-Methionine, DL-Phenylalanine, L-Proline, L-Serine, L-Threonine, L-Tryptophan, L-Tyrosine, L-Valine - 1g of each included in set

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54845		N/A	17 Amino acids	SET

**AMMONIA SOLUTION** $\text{NH}_4\text{OH} = 35.05\text{g/mol}$ 


**UN Class:** 8 / UN2672 PG-III **EC No.:** 215-647-6 **Danger**  
**Cas No.:** 1336-21-6 **Index No.:** 007-001-01-2  
**Hazard:** H314 H400  
**Precaution:** P273 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC54847		33-35 $\text{NH}_3$		1L
ESC54848		33-35 $\text{NH}_3$		2.5L




**AMMONIUM ACETATE (AMMONIUM ETHANOATE)** $\text{CH}_3\text{COONH}_4 = 77.08\text{g/mol}$ 

UN Class: N/A EC No.: 211-162-9  
 Cas No.: 7664-93-9 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: Not considered hazardous  
 Notes: pH of solution 6.5-7.5

Cat No.	Grade	Assay	Info.	Per
ESC54851		96%		500g


**AMMONIUM HYDROGEN CARBONATE (AMMONIUM BICARBONATE)** $\text{NH}_4\text{HCO}_3 = 79.06\text{g/mol}$ 

UN Class: N/A EC No.: 213-911-5 Warning  
 Cas No.: 1066-33-7 Index No.: Not listed  
 Hazard: H302  
 Precaution: P301+P312

Cat No.	Grade	Assay	Info.	Per
ESC54866		98.5%		500g


**AMMONIUM BROMIDE (HYDROBROMIC ACID MONOAMMONIATE)** $\text{NH}_4\text{Br} = 97.94\text{g/mol}$ 

UN Class: N/A EC No.: 235-183-8 Warning  
 Cas No.: 12124-97-9 Index No.: Not listed  
 Hazard: H319 H315  
 Precaution: P305+P351+P338 P332+P313 P337+P313

Cat No.	Grade	Assay	Info.	Per
ESC54854		99%		500g


**DI-AMMONIUM HYDROGEN PHOSPHATE** $(\text{NH}_4)_2\text{HPO}_4 = 132.06\text{g/mol}$ 

UN Class: N/A EC No.: 231-987-8 Warning  
 Cas No.: 7783-28-0 Index No.: Not listed  
 Hazard: H315 H319 H335  
 Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55236		98%		500g


**AMMONIUM CARBONATE** $(\text{NH}_4)_2\text{CO}_3 = 96.09\text{g/mol}$ 

UN Class: N/A EC No.: 208-058-0 Warning  
 Cas No.: 506-87-6 Index No.: Not listed  
 Hazard: H302  
 Precaution: P301+P312

Cat No.	Grade	Assay	Info.	Per
ESC54857		98%		500g


**AMMONIUM IRON (II) SULPHATE 6-WATER** $(\text{NH}_4)_2\text{Fe}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O} = 392.14\text{g/mol}$ 

UN Class: N/A EC No.: 233-151-8 Warning  
 Cas No.: 7783-85-9 Index No.: Not listed  
 Hazard: H315 H319 H335  
 Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54869		98%		500g


**AMMONIUM CHLORIDE (SAL AMMONIAC)** $\text{NH}_4\text{Cl} = 53.49\text{g/mol}$ 

UN Class: N/A EC No.: 235-186-4 Warning  
 Cas No.: 12125-02-9 Index No.: Not listed  
 Hazard: H302 H319  
 Precaution: P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54860		99%		500g


**AMMONIUM IRON (III) CITRATE (AMMONIUM FERRIC CITRATE)** $\text{C}_6\text{H}_5\text{O}_7 \cdot x\text{Fe}_3 \cdot y\text{NH}_3$ 

UN Class: N/A EC No.: 214-686-6  
 Cas No.: 1185-57-5 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Price	Per
ESC54872		98%	Brown	15.95	100g


**AMMONIUM DICHROMATE** $(\text{NH}_4)_2\text{Cr}_2\text{O}_7 = 252.06\text{g/mol}$ 

UN Class: 5.1 /UN1439 PG-II EC No.: 232-143-1 Danger  
 Cas No.: 7789-09-5 Index No.: 024-003-00-1  
 Hazard: H272 H350 H340 H360 H330 H372 H312 H314 H334 H317 H410  
 Precaution: P201 P220 P260 P273 P280 P284

Cat No.	Grade	Assay	Info.	Per
ESC54863		33-35 NH <sub>3</sub>		500g

**AMMONIUM IRON (III) CITRATE - GREEN** $\text{C}_6\text{H}_5\text{O}_7 \cdot x\text{Fe}_3 \cdot y\text{NH}_3$ 

UN Class: N/A EC No.: 214-686-6  
 Cas No.: 1185-57-5 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54875		98%	Green	100g





**AMMONIUM IRON (III) SULPHATE 12-WATER** $\text{NH}_4\text{Fe}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O} = 482.19\text{g/mol}$ 

UN Class: N/A

EC No.: 233-382-4

Warning

Cas No.: 7783-83-7

Index No.: Not listed

Hazard: H315 H319

Precaution: P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54878		98%		500g

**ISO-AMYL ACETATE (ISO-PENTYL ACETATE)** $\text{CH}_3\text{COOC}_5\text{H}_{11} = 130.18\text{g/mol}$ 

24°C

UN Class: 3 / UN1104 PG-III

EC No.: 211-047-3

Warning

Cas No.: 628-63-7

Index No.: 607-130-00-2

Hazard: H226 EUH066

Precaution: P210 P243 P280

Cat No.	Grade	Assay	Info.	Per
ESC54894		95%		500ml

**AMMONIUM METAVANADATE (AMMONIUM TRIOXOVANADATE)** $\text{NH}_4\text{VO}_3 = 116.98\text{g/mol}$ 

UN Class: 6.1 / UN2859 PG-II

EC No.: 232-261-3

Danger

Cas No.: 7803-55-6

Index No.: Not listed

Hazard: H301 H315 H319 H330 H335

Precaution: P260 P284 P301+P310 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Price	Per
ESC54880		98%		15.95	50g

**AMMONIUM PEROXODISULPHATE (AMMONIUM PERSULPHATE)** $(\text{NH}_4)_2\text{S}_2\text{O}_8 = 228.2\text{g/mol}$ 

UN Class: 5.1 / UN1444 PG-III

EC No.: 231-786-5

Danger

Cas No.: 7727-54-0

Index No.: 016-060-00-6

Hazard: H272 H302 H315 H317 H319 H334 H335

Precaution: P280 P305+P351+P338 P210 P302+P352 P304+P340 P309+P311

Cat No.	Grade	Assay	Info.	Per
ESC54888		98%		500g

**AMMONIUM MOLYBDATE (VI) 4-WATER** $(\text{NH}_4)_6\text{Mo}_7\text{O}_{24} \cdot 4\text{H}_2\text{O} = 1235.86\text{g/mol}$ 

UN Class: N/A

EC No.: 234-722-4

Warning

Cas No.: 12054-85-2

Index No.: Not listed

Hazard: H315 H319 H335

Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54881		98%		500g

**AMMONIUM SULPHATE** $(\text{NH}_4)_2\text{SO}_4 = 132.14\text{g/mol}$ 

UN Class: N/A

EC No.: 231-984-1

Danger

Cas No.: 7783-20-2

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54889		98.5%		500g

**AMMONIUM NICKEL (II) SULPHATE 6-WATER (NICKEL AMMONIUM SULPHATE)** $(\text{NH}_4)_2\text{Ni}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O} = 394.99\text{g/mol}$ 

UN Class: N/A

EC No.: 239-793-5

Danger

Cas No.: 7785-20-8

Index No.: Not listed

Hazard: H302 H317 H332 H334 H341 H350 H360 H372 H410

Precaution: P201 P261 P273 P280 P308+P313 P501

Cat No.	Grade	Assay	Info.	Per
ESC54884		98%		500g

**AMMONIUM THIOCYANATE** $\text{NH}_4\text{SCN} = 76.12\text{g/mol}$ 

UN Class: N/A

EC No.: 217-175-6

Warning

Cas No.: 1762-95-4

Index No.: 615-030-00-5

Hazard: H302 H312 H332 H410

Precaution: P273 P280 P501

Cat No.	Grade	Assay	Info.	Per
ESC54892		96%		500g

**AMMONIUM NITRATE** $\text{NH}_4\text{NO}_3 = 80.04\text{g/mol}$ 

UN Class: 5.1 / UN2067 PG-III

EC No.: 229-347-8

Warning

Cas No.: 6484-52-2

Index No.: Not listed

Hazard: H272 H319 H315

Precaution: P220 P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54885		98%		500g

**AMMONIUM OXALATE 1-WATER (OXALIC ACID DIAMMONIUM SALT)** $(\text{COONH}_4)_2 \cdot \text{H}_2\text{O} = 142.11\text{g/mol}$ 

UN Class: 6.1 / UN2811 PG-III

EC No.: 214-202-3

Warning

Cas No.: 6009-70-7

Index No.: 607-007-00-3

Hazard: H312 H302

Precaution: P261 P302+P352 P304+P340+P312

Cat No.	Grade	Assay	Info.	Per
ESC54886		99%		100g



## ISO-AMYL ALCOHOL (3-METHYL BUTAN-1-OL)

 $C_5H_{11}OH = 88.15g/mol$ 

**UN Class:** 3 /UN1105 PG-III **EC No.:** 204-633-5 **Warning**  
**Cas No.:** 123-51-3 **Index No.:** 603-006-00-7  
**Hazard:** H226 H315 H319 H332 H335  
**Precaution:** P210 P261 P280 P337+P313 P304+P340+P312

Cat No.	Grade	Assay	Info.	Per
ESC55448		96%		2.5L

## AQUADAG (CARBON COLLOIDAL)

N/A



**UN Class:** N/A **EC No.:** 231-955-3 **Warning**  
**Cas No.:** 7782-42-5 **Index No.:** Not listed  
**Hazard:** H319 H335  
**Precaution:** P261 P305+P351+P338  
**Notes:** 20% suspension of colloidal in graphite

Cat No.	Grade	Assay	Info.	Per
ESC54899		N/A		100g

## ANILINE (PHENYLAMINE)

 $C_6H_5NH_2 = 93.13g/mol$ 

**UN Class:** 6.1 /UN1547 PG-II **EC No.:** 200-539-3 **Danger**  
**Cas No.:** 62-53-3 **Index No.:** 612-008-00-7  
**Hazard:** H301 H311 H317 H318 H331 H341 H351 H372 H410  
**Precaution:** P261 P273 P280 P301+P310 P305+P351+P338 P311  
**Notes:** Distillation range 182-186°C

Cat No.	Grade	Assay	Info.	Per
ESC54895		98%		1L

## L-ARGININE ((S)-2-AMINO-5-GUANIDINOPENTANOIC ACID)

 $H_2NC(=NH)NH(CH_2)_3CH(NH_2CO_2H) = 174.2g/mol$ 

**UN Class:** N/A **EC No.:** 200-811-1  
**Cas No.:** 74-79-3 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54900		98%		100g

## ANILINE HYDROCHLORIDE (PHENYLAMMONIUM CHLORIDE)

 $C_6H_5NH_2 \cdot HCl = 129.59g/mol$ 

**UN Class:** 6.1 /UN1548 PG-III **EC No.:** 205-519-8 **Danger**  
**Cas No.:** 142-04-1 **Index No.:** 612-009-00-2  
**Hazard:** H301 H311 H317 H318 H331 H341 H351 H372 H400  
**Precaution:** P261 P273 P280 P301+P310 P305+P351+P338 P311

Cat No.	Grade	Assay	Info.	Per
ESC54896		98%		100g

## L-ASCORBIC ACID (VITAMIN C)

 $C_6H_8O_6 = 176.13g/mol$ 

**UN Class:** N/A **EC No.:** 200-066-2  
**Cas No.:** 50-81-7 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55468		99%		500g

## ANTHRANILIC ACID (2-AMINO BENZOIC ACID)

 $2-(H_2N)C_6H_4CO_2H = 137.14g/mol$ 

**UN Class:** N/A **EC No.:** 204-287-5 **Warning**  
**Cas No.:** 118-92-3 **Index No.:** Not listed  
**Hazard:** H319  
**Precaution:** P305+P351+P338 P280

Cat No.	Grade	Assay	Info.	Per
ESC54897		97%		100g

## DL - ASPARTIC ACID ((2S)-2-AMINO BUTANEDIOIC ACID)

 $HOOCCH_2CH(NH_2)COOH = 133.1g/mol$ 

**UN Class:** N/A **EC No.:** 210-513-3  
**Cas No.:** 617-45-8 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55469		97%		25g

## ANTI-BUMPING GRANULES (REFINED ALUMINIUM OXIDE)

 $Al_2O_3 = 101.96g/mol$ 

**UN Class:** N/A **EC No.:** 215-691-6  
**Cas No.:** 1344-28-1 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required  
**Notes:** To prevent boiling liquids from bumping

Cat No.	Grade	Assay	Info.	Per
ESC54898		97%		250g

## L-ASPARTIC ACID ((S)-AMINO BUTANEDIOIC ACID)

 $NH_2CH(COOH) \cdot CH_2 \cdot COOH = 133.1g/mol$ 

**UN Class:** N/A **EC No.:** 200-291-6  
**Cas No.:** 56-84-8 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Price	Per
ESC55470		99%		15.95	25g



## BARFOED'S REAGENT

 $\text{NH}_2\text{CH}(\text{COOH}) \cdot \text{CH}_2 \cdot \text{COOH} = 133.1\text{g/mol}$ 


UN Class: N/A

EC No.: N/A

Warning

Cas No.: N/A

Index No.: Not listed

Hazard: H411

Precaution: P273

Notes: Reagent testing for the presence of monosaccharide

Cat No.	Grade	Assay	Info.	Per
ESC54901		N/A		500ml

## BARIUM METAL IN LIQUID PARAFFIN

Ba = 137.34g/mol



UN Class: 4.3 /UN1400 PG-II

EC No.: 231-149-1

Danger

Cas No.: 7440-39-3

Index No.: Not listed

Hazard: H261 H315 H319 H335

Precaution: P231+P232 P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54903		98%		10g

## BARIUM CARBONATE

 $\text{BaCO}_3 = 197.34\text{g/mol}$ 

UN Class: 6.1 /UN1564 PG-III

EC No.: 208-167-3

Warning

Cas No.: 513-77-9

Index No.: 056-003-00-2

Hazard: H302

Precaution: P301+P312

Cat No.	Grade	Assay	Info.	Per
ESC54904		99%		500g

## BARIUM CHLORIDE 2-WATER

 $\text{BaCl}_2 \cdot 2\text{H}_2\text{O} = 244.26\text{g/mol}$ 

UN Class: 6.1 /UN1564 PG-III

EC No.: 233-788-1

Warning

Cas No.: 10326-27-9

Index No.: 056-004-00-8

Hazard: H301 H332

Precaution: P261 P301+P330+P331 P310

Cat No.	Grade	Assay	Info.	Per
ESC54907		99%		250g
ESC54908		99%		500g

## BARIUM HYDROXIDE 8-WATER

 $\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O} = 315.46\text{g/mol}$ 

UN Class: 8 /UN3262 PG-II

EC No.: 241-234-5

Danger

Cas No.: 12230-71-6

Index No.: Not listed

Hazard: H302 H314 H332

Precaution: P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC54911		96%		500g

## BARIUM PEROXIDE

 $\text{BaO}_2 = 169.34\text{g/mol}$ 

UN Class: 5.1(6.1) /UN1449 PG-II

EC No.: 215-128-4

Danger

Cas No.: 1304-29-6

Index No.: 056-001-00-1

Hazard: H272 H302 H332

Precaution: P220

Cat No.	Grade	Assay	Info.	Per
ESC54916		85-90%		100g

## BARIUM NITRATE

 $\text{Ba}(\text{NO}_3)_2 = 261.34\text{g/mol}$ 

UN Class: 5.1(6.1) /UN1446 PG-II

EC No.: 233-020-5

Danger

Cas No.: 10022-31-8

Index No.: 056-002-00-7

Hazard: H302 H332 H272

Precaution: P210 P280 P304+P340 P309+P310

Cat No.	Grade	Assay	Info.	Per
ESC54914		98%		250g

## BARIUM OXIDE

 $\text{BaO} = 153.33\text{g/mol}$ 

UN Class: 6.1 /UN1884 PG-III

EC No.: 215-127-9

Danger

Cas No.: 1304-28-5

Index No.: Not listed

Hazard: H301 H314 H332

Precaution: P280 P301+P310 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54915		97%		50g

## BARIUM SULPHATE PRECIPITATED

 $\text{BaSO}_4 = 233.39\text{g/mol}$ 

UN Class: N/A

EC No.: 231-784-4

Cas No.: 7727-43-7

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54917		97%		500g

## BEESWAX (WHITE)

UN Class: N/A

EC No.: 232-383-7

Cas No.: 8012-89-3

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54920		> 97%		500g





**BENZOPHENONE (DIPHENYL KETONE)** $C_6H_5COC_6H_5 = 182.22g/mol$ 

**UN Class:** N/A **EC No.:** 204-337-6 **Warning**  
**Cas No.:** 119-61-9 **Index No.:** Not listed  
**Hazard:** H410  
**Precaution:** P273

Cat No.	Grade	Assay	Info.	Per
ESC54931		99%		250ml

**BENEDICT'S SOLUTION QUALITATIVE**

N/A



**UN Class:** 9 / UN3082 PG-III **EC No.:** N/A **Warning**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H412  
**Precaution:** P273  
**Notes:** For determination of reducing sugars

Cat No.	Grade	Assay	Info.	Per
ESC54923		N/A		500ml

**BENZALDEHYDE** $C_6H_5 \cdot CHO = 106.12g/mol$ 

**UN Class:** 9 / UN1990 PG-III **EC No.:** 202-860-4 **Warning**  
**Cas No.:** 100-52-7 **Index No.:** 605-012-00-5  
**Hazard:** H302  
**Precaution:** P301+P312  
**Notes:** Distillation range 175-183°C

Cat No.	Grade	Assay	Info.	Per
ESC54926		98%		500ml

**BENZENE-1,2-DICARBOXYLIC ACID SEE PHTHALIC ACID****BENZENE-1,2-DICARBOXYLIC ANHYDRIDE**

SEE PHTHALIC ANHYDRIDE

**BENZENE-1,2-DIOL** SEE CATECHOL**BENZENE-1,3-DIOL** SEE RESORCINOL**BENZENE-1,4-DIOL** SEE HYDROQUINONE**BENZENE-1,2,3-TRIOL** SEE PYROGALLOL**BENZENE-1,2,5-TRIOL** SEE PHLOROGLUCINOL**BENZIL (1,2-DIPHENYLETHANE-1,2-DIONE)** $C_{14}H_{10}O_2 = 210.23g/mol$ 

**UN Class:** N/A **EC No.:** 205-157-0 **Warning**  
**Cas No.:** 134-81-6 **Index No.:** Not listed  
**Hazard:** H315 H319 H335  
**Precaution:** P261 P305+P351+P338 P302+P352

Cat No.	Grade	Assay	Info.	Per
ESC54928		98%		25g

**BENZOIC ACID (BENZENECARBOXYLIC ACID)** $C_6H_5COOH = 122.12g/mol$ 

**UN Class:** N/A **EC No.:** 200-618-2 **Warning**  
**Cas No.:** 65-85-0 **Index No.:** Not listed  
**Hazard:** H302 H319  
**Precaution:** P301+P312 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54930		98.5%		500g

**BENZOYL CHLORIDE** $C_6H_5COCl = 140.57g/mol$ 

**UN Class:** 8 / UN1736 PG-II **EC No.:** 202-710-8 **Danger**  
**Cas No.:** 98-88-4 **Index No.:** 607-012-00-0  
**Hazard:** H314 H302 H312 H332  
**Precaution:** P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC54933		99%		1L

**BENZYL ALCOHOL (BENZENEMETHANOL)** $C_6H_5CH_2OH = 108.14g/mol$ 

**UN Class:** 9 / UN3334 PG-III **EC No.:** 202-859-9 **Warning**  
**Cas No.:** 100-51-6 **Index No.:** 603-057-00-5  
**Hazard:** H302 H332  
**Precaution:** P301+P312

Cat No.	Grade	Assay	Info.	Per
ESC54936		99%		1L

**BENZYL CHLORIDE (A-CHLOROTOLUENE)** $C_6H_5CH_2Cl = 126.58g/mol$ 

**UN Class:** 6.1 / UN1738 PG-II **EC No.:** 202-853-6 **Danger**  
**Cas No.:** 100-44-7 **Index No.:** 602-037-00-3  
**Hazard:** H350 H331 H302 H373 H335 H315 H318  
**Precaution:** P201 P261 P280 P305+P351+P338 P308+P313  
**Notes:** Distillation range 175-180°C

Cat No.	Grade	Assay	Info.	Per
ESC54939		98%	SURCHARGE	500ml

**BICARBONATE INDICATOR**

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** N/A **Index No.:** Not listed


**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required  
**Notes:** Distillation range 175-180°C

Cat No.	Grade	Assay	Info.	Per
ESC54943		N/A		500ml



**BILE SALTS (SODIUM TAUROGLYCOCHOLATE)**

UN Class: N/A EC No.: 234-243-0  
 Cas No.: 11006-55-6 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required  
 Notes: Distillation range 175-180°C


Cat No.	Grade	Assay	Info.	Per
ESC54944		>65%		25g

**BISMUTH (III) CHLORIDE (BISMUTH TRICHLORIDE)**

$\text{BiCl}_3 = 315.34\text{g/mol}$



UN Class: N/A EC No.: 232-123-2 Warning  
 Cas No.: 7787-60-2 Index No.: Not listed  
 Hazard: H315 H319  
 Precaution: P305+P351+P338 P302+P352


Cat No.	Grade	Assay	Info.	Per
ESC54945		98%		10g

**BISMUTH NITRATE 5-WATER**

$\text{Bi}(\text{NO}_3)_3 \cdot 5\text{H}_2\text{O} = 485.07\text{g/mol}$



UN Class: 5.1 /UN1477 PG-II EC No.: 233-791-8 Danger  
 Cas No.: 10035-06-0 Index No.: Not listed  
 Hazard: H272 H315 H319 H335  
 Precaution: P220 P261 P305+P351+P338


Cat No.	Grade	Assay	Info.	Per
ESC54946		98%		25g

**BIURET REAGENT**

N/A



UN Class: N/A EC No.: N/A Warning  
 Cas No.: N/A Index No.: Not listed  
 Hazard: H315 H319  
 Precaution: P280 P305+P351+P338  
 Notes: Working solution to test for proteins

Cat No.	Grade	Assay	Info.	Per
ESC54947		N/A		1L

**BLEACHING POWDER** SEE CALCIUM HYPOCHLORITE


**BORAX** SEE DISODIUM TETRABORATE

**BORIC ACID CRYSTALS (TRIOXYBORIC (III) ACID)**

$\text{H}_3\text{BO}_3 = 61.83\text{g/mol}$



UN Class: N/A EC No.: 233-139-2 Danger  
 Cas No.: 10043-35-3 Index No.: 005-007-00-2  
 Hazard: H360FD  
 Precaution: P201 P308+P313


Cat No.	Grade	Assay	Info.	Per
ESC54950		99.5%		500g

**BORIC ACID POWDER (TRIOXYBORIC (III) ACID)**

$\text{H}_3\text{BO}_3 = 61.83\text{g/mol}$



UN Class: N/A EC No.: 233-139-2 Danger  
 Cas No.: 10043-35-3 Index No.: 005-007-00-2  
 Hazard: H360FD  
 Precaution: P201 P308+P313


Cat No.	Grade	Assay	Info.	Per
ESC54951		99.5%		500g

**BROMINE**

$\text{Br}_2 = 159.81\text{g/mol}$



UN Class: 8(6.1) /UN1744 PG-I EC No.: 231-778-1 Danger  
 Cas No.: 7726-95-6 Index No.: 035-001-00-5  
 Hazard: H314 H330 H400  
 Precaution: P260 P273 P280 P284 P305+P351+P338 P310


Cat No.	Grade	Assay	Info.	Per
ESC54953		98%	SURCHARGE	1L

**BROMINE WATER 0.2M**

N/A



UN Class: 8(6.1) /UN1744 PG-I EC No.: 231-778-1 Danger  
 Cas No.: 7726-95-6 Index No.: Not listed  
 Hazard: H314 H330 H400  
 Precaution: P273 P280 P305+P351+P338 P310


Cat No.	Grade	Assay	Info.	Per
ESC54954		0.2M	SURCHARGE	1L

**BROMOBENZENE**

$\text{C}_6\text{H}_5 \cdot \text{Br} = 157.01\text{g/mol}$



UN Class: 3 /UN2514 PG-III EC No.: 203-623-8 Warning  
 Cas No.: 108-86-1 Index No.: 602-060-00-9  
 Hazard: H226 H315 H411  
 Precaution: P210 P273

Cat No.	Grade	Assay	Info.	Per
ESC54960		95%		100ml



**1-BROMOBUTANE (N-BUTYL BROMIDE)** $\text{CH}_3 \cdot \text{CH}_2 \cdot \text{CH}_2 \cdot \text{CH}_2 \cdot \text{Br} = 137.02\text{g/mol}$ 

**UN Class:** 3 / UN1126 PG-II **EC No.:** 203-691-9 **Danger**  
**Cas No.:** 109-65-9 **Index No.:** Not listed  
**Hazard:** H225 H315 H319 H335 H411  
**Precaution:** P210 P261 P273 P280 P313 P331 P403+P235

Cat No.	Grade	Assay	Info.	Per
ESC54760		>97%		1L

**2-BROMOBUTANE (SEC-BUTYL BROMIDE)** $\text{CH}_3 \cdot \text{CHBr} \cdot \text{CH}_2 \cdot \text{CH}_3 = 137.02\text{g/mol}$ 

**UN Class:** 3 / UN2339 PG-II **EC No.:** 201-140-7 **Danger**  
**Cas No.:** 78-76-2 **Index No.:** Not listed  
**Hazard:** H226 H412  
**Precaution:** P210 P243 P273 P280

Cat No.	Grade	Assay	Info.	Per
ESC54782		>97%		100ml

**BROMOCRESOL GREEN** $\text{C}_{21}\text{H}_{14}\text{Br}_4\text{O}_5\text{S} = 698.01\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 200-972-8  
**Cas No.:** 76-60-8 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required  
**Notes:** pH 3.6-5.2

Cat No.	Grade	Assay	Info.	Per
ESC54964		>97%	Powder	25g

**BROMOCRESOL PURPLE** $\text{C}_{21}\text{H}_{16}\text{Br}_2\text{O}_5\text{S} = 540.22\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 204-087-8 **Warning**  
**Cas No.:** 115-40-2 **Index No.:** Not listed  
**Hazard:** H315 H319 H335  
**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54967		>97%	pH 5.2-6.8	25g

**1-BROMOETHANE (ETHYL BROMIDE)** $\text{C}_2\text{H}_5\text{Br} = 108.97\text{g/mol}$ 

**UN Class:** 6.1 / UN1891 PG-II **EC No.:** 200-825-8 **Danger**  
**Cas No.:** 74-96-4 **Index No.:** 602-055-00-1  
**Hazard:** H225 H351 H332 H302  
**Precaution:** P201 P210 P281 P301+P312 P304+P340 P309+P311

Cat No.	Grade	Assay	Info.	Per
ESC54763		>97%		500ml

**2-BROMO-2-METHYLPROPANE (TERT-BUTYL BROMIDE)** $(\text{CH}_3)_3\text{CBr} = 137.02\text{g/mol}$ 

**UN Class:** 3 / UN2342 PG-II **EC No.:** 208-065-9 **Danger**  
**Cas No.:** 507-19-7 **Index No.:** Not listed  
**Hazard:** H225  
**Precaution:** P210

Cat No.	Grade	Assay	Info.	Per
ESC54784		>97%		25ml

**BROMO PHENOL BLUE** $\text{C}_{19}\text{H}_{10}\text{Br}_4\text{O}_5\text{S} = 669.96\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 204-086-2 **Warning**  
**Cas No.:** 115-39-9 **Index No.:** Not listed  
**Hazard:** H332 H312 H319  
**Precaution:** P261 P280 P305+P351+P338 P264  
**Notes:** pH 2.8-4.6

Cat No.	Grade	Assay	Info.	Per
ESC54957		>97%	Powder	25g

**BROMOTHYMOL BLUE** $\text{C}_{27}\text{H}_{28}\text{Br}_2\text{O}_5\text{S} = 624.38\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 200-971-2  
**Cas No.:** 76-59-5 **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required  
**Notes:** pH 6.0-7.6

Cat No.	Grade	Assay	Info.	Per
ESC54970		>97%	Powder	25g

**BUFFER SOLUTION**

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** N/A **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54978			pH2 (Citrate)	500ml
ESC54982			pH4 (Phthalate)	500ml
ESC54985			pH6 (Acetate)	500ml
ESC54988			pH7 (Phthalate)	500ml
ESC54991			pH9.2 (Phthalate)	500ml
ESC54974			pH10 (Phthalate)	500ml





## COLOURED BUFFER SOLUTION

UN Class: N/A  
Cas No.: N/A

EC No.: N/A  
Index No.: Not listed

**Hazard:** Not considered hazardous

**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54998			pH4 Red	500ml
			pH7 Green	500ml
			pH10 Blue	500ml

## BUTANAL (N-BUTYRALDEHYDE)

$\text{CH}_3\text{CH}_2\text{CH}_2\text{CHO} = 72.11\text{g/mol}$



UN Class: 3 / UN1129 PG-II  
Cas No.: 123-72-8

EC No.: 204-646-6  
Index No.: 605-006-00-2

Danger

**Hazard:** H225  
**Precaution:** P210

Cat No.	Grade	Assay	Info.	Per
ESC55000		98%		100ml
ESC55001		98%		500ml

BUTANEDIOIC ACID SEE SUCCINIC ACID

## BUTANOIC ACID (N-BUTYRIC ACID)

$\text{CH}_3\text{CH}_2\text{CH}_2\text{COOH} = 88.11\text{g/mol}$



UN Class: 8 / UN2820 PG-II  
Cas No.: 107-92-6

EC No.: 203-532-3  
Index No.: 607-135-00-X

Danger

**Hazard:** H314  
**Precaution:** P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55002		99.5%		100ml

## BUTAN-1-OL (N-BUTYL ALCOHOL)

$\text{CH}_3(\text{CH}_2)_3\text{OH} = 74.12\text{g/mol}$



UN Class: 3 / UN1120 PG-III  
Cas No.: 71-36-3

EC No.: 200-751-6  
Index No.: 603-004-00-6

Danger

**Hazard:** H226 H302 H335 H315 H318 H336  
**Precaution:** P210 P280 P301+P330+P331 P304+P340 P312

Cat No.	Grade	Assay	Info.	Per
ESC55003		99.5%		500ml
ESC55004		99.5%		2.5L

## BUTAN-2-OL (SEC-BUTYL ALCOHOL)

$\text{CH}_3\text{CH}_2\text{CHOHCH}_3 = 74.12\text{g/mol}$



UN Class: 3 / UN1120 PG-III  
Cas No.: 78-92-2

EC No.: 201-158-5  
Index No.: 603-127-00-5

+7°C

**Hazard:** H225 H319 H335 H336

**Precaution:** P210 P243 P280 P304+P340 P305+P351+P338 P312

Cat No.	Grade	Assay	Info.	Per
ESC55005		99.5%		1L

## BUTANONE (METHYL ETHYL KETONE)

$\text{C}_2\text{H}_5\text{COCH}_3 = 72.11\text{g/mol}$



UN Class: 3 / UN1193 PG-II  
Cas No.: 78-93-3

EC No.: 201-159-0  
Index No.: Not listed

Danger

**Hazard:** H225 H319 H336

**Precaution:** P210 P241 P303+P361+P353 P405 P501

Cat No.	Grade	Assay	Info.	Per
ESC55006		99%		2.5L

## N-BUTYL ACETATE (BUTYL ETHANOATE)

$\text{CH}_3\text{COO}(\text{CH}_2)_3\text{CH}_3 = 116.16\text{g/mol}$



UN Class: 3 / UN1123 PG-III  
Cas No.: 123-86-4

EC No.: 204-658-1  
Index No.: 607-025-00-1

Warning

**Hazard:** H226 H336 EUH066

**Precaution:** P210 P243 P280 P304+P340 P312

Cat No.	Grade	Assay	Info.	Per
ESC55640		98%		1L

ISO-BUTYL ALCOHOL SEE 2-METHYLPROPAN-1-OL

N-BUTYL ALCOHOL SEE BUTAN-1-OL

SEC-BUTYL ALCOHOL SEE BUTAN-2-OL

TERT-BUTYL ALCOHOL SEE 2-METHYLPROPAN-2-OL

## N-BUTYLAMINE (1-AMINO BUTANE)

$\text{CH}_3(\text{CH}_2)_3\text{NH}_2 = 73.14\text{g/mol}$



UN Class: 3(8) / UN1125 PG-II  
Cas No.: 109-73-9

EC No.: 203-699-2  
Index No.: 612-005-00-0

Danger

**Hazard:** H225 H332 H312 H302 H314

**Precaution:** P210 P243 P280 P301+P330+P331 P302+P352 P304+P340 P309+P311

Cat No.	Grade	Assay	Info.	Per
ESC55644		98%		1L

N-BUTYL IODIDE SEE 1-IODOBUTANE


N-BUTYRALDEHYDE SEE BUTANAL



## CAESIUM CHLORIDE

 $\text{CsCl} = 168.32\text{g/mol}$ 


**UN Class:** N/A **EC No.:** 231-600-2 **Danger**  
**Cas No.:** 7647-17-8 **Index No.:** Not listed  
**Hazard:** H302 H361 H373  
**Precaution:** P201 P301+P312+P330 P308-P313

Cat No.	Grade	Assay	Info.	Per
ESC55007		99%		10g

## CAFFEINE (1,3,7-TRIMETHYLSXANTHINE)

 $\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2 = 194.19\text{g/mol}$ 



**UN Class:** 6.1 /UN1544 PG-III **EC No.:** 200-362-1 **Warning**  
**Cas No.:** 58-08-2 **Index No.:** 613-086-00-5  
**Hazard:** H302  
**Precaution:** P301+P312

Cat No.	Grade	Assay	Info.	Per
ESC55008		98%		25g

## CALCIUM METAL - GRANULAR

 $\text{Ca} = 40.08\text{g/mol}$ 

**UN Class:** 4.3 /UN1401 PG-II **EC No.:** 231-179-5 **Danger**  
**Cas No.:** 7440-70-2 **Index No.:** 020-001-00-X  
**Hazard:** H261  
**Precaution:** P231+P232 P422


Cat No.	Grade	Assay	Info.	Per
ESC55041		98%	2-7mm	50g
ESC55042		98%	2-7mm	100g

## CALCIUM ACETATE (CALCIUM ETHANOATE)

 $(\text{CH}_3\text{COO})_2\text{Ca} = 158.17\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 200-540-9  
**Cas No.:** 62-54-4 **Index No.:** Not listed


**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55011		99%		250g

## CALCIUM BROMIDE

 $\text{CaBr}_2 \cdot x\text{H}_2\text{O} = 199.89\text{g/mol}$ 


**UN Class:** N/A **EC No.:** 232-164-6 **Warning**  
**Cas No.:** 71626-99-8 **Index No.:** Not listed  
**Hazard:** H315 H319 H355  
**Precaution:** P261 P302+P352 P305+P351+P338 P405 P501

Cat No.	Grade	Assay	Info.	Per
ESC55012		97%		250g

## CALCIUM CARBIDE

 $\text{CaC}_2 = 64.1\text{g/mol}$ 

**UN Class:** 4.3 /UN1402 PG-II **EC No.:** 200-848-3 **Danger**  
**Cas No.:** 75-20-7 **Index No.:** 006-004-00-9  
**Hazard:** H260  
**Precaution:** P223 P231+P232 P370+P378



Cat No.	Grade	Assay	Info.	Per
ESC55016		97%		500g

## CALCIUM CARBONATE - PRECIPITATED (PRECIPITATED)

 $\text{CaCO}_3 = 100.09\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 207-439-9  
**Cas No.:** 471-34-1 **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required


Cat No.	Grade	Assay	Info.	Per
ESC55020		99%		500g
ESC55021		99%		1kg

## CALCIUM CARBONATE ORE SEE MARBLE CHIPS

## CALCIUM CHLORIDE ANHYDROUS - GRANULAR

 $\text{CaCl}_2 = 110.99\text{g/mol}$ 


**UN Class:** N/A **EC No.:** 233-140-8 **Warning**  
**Cas No.:** 10043-52-4 **Index No.:** 017-013-00-2  
**Hazard:** H319  
**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55032		90%		500g

## CALCIUM CHLORIDE 2-WATER

 $\text{CaCl}_2 \cdot 2\text{H}_2\text{O} = 147.01\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 233-140-8 **Warning**  
**Cas No.:** 10035-04-8 **Index No.:** Not listed  
**Hazard:** H319  
**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55028		98%		500g



**CALCIUM CHLORIDE 6-WATER** $\text{CaCl}_2 \cdot 6\text{H}_2\text{O} = 219.08\text{g/mol}$ **UN Class:** N/A**EC No.:** N/A

Warning

**Cas No.:** 7774-34-7**Index No.:** Not listed**Hazard:** H319**Precaution:** P305+P351+P338 P230 P337+313

Cat No.	Grade	Assay	Info.	Per
ESC55030		98%		500g

**CALCIUM HYDROXIDE** $\text{Ca(OH)}_2 = 74.09\text{g/mol}$ **UN Class:** N/A**EC No.:** 215-137-3

Danger

**Cas No.:** 1305-62-0**Index No.:** Not listed**Hazard:** H318**Precaution:** P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55036		95%		500g

**CALCIUM HYDROXIDE SOLUTION SEE LIME WATER****CALCIUM ETHANOATE SEE CALCIUM ACETATE****CALCIUM HYPOCHLORITE (BLEACHING POWDER)** $\text{Ca(OCl)}_2 = 142.98\text{g/mol}$ **UN Class:** 5.1 /UN1748 PG-II**EC No.:** 231-908-7

Danger

**Cas No.:** 7778-54-3**Index No.:** 017-012-00-7**Hazard:** H272 H302 H314 H400**Precaution:** P220 P273 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55039		96%		500g

**CALCIUM NITRATE 4-WATER** $\text{Ca(NO}_3)_2 \cdot 4\text{H}_2\text{O} = 236.15\text{g/mol}$ **UN Class:** 5.1 /UN1454 PG-III**EC No.:** 233-332-1

Warning

**Cas No.:** 13477-34-4**Index No.:** Not listed**Hazard:** H272 H315 H319 H335**Precaution:** P220+P261 P280 P304+P340 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55048		98%		500g

**CALCIUM OXIDE (QUICKLIME)** $\text{CaO} = 56.08\text{g/mol}$ **UN Class:** 8 /UN1910 PG-III**EC No.:** 215-138-9

Danger

**Cas No.:** 1305-78-8**Index No.:** Not listed**Hazard:** H314**Precaution:** P280 P305+P351+P338 P312

Cat No.	Grade	Assay	Info.	Per
ESC55054		96%		1kg
ESC55053		96%		500g

**CALCIUM SULPHATE 2-WATER - PRECIPITATE** $\text{CaSO}_4 \cdot 2\text{H}_2\text{O} = 172.17\text{g/mol}$ **UN Class:** N/A**EC No.:** 231-900-3**Cas No.:** 10101-41-4**Index No.:** Not listed**Hazard:** H225 H319 H335 H336**Precaution:** P210 P243 P280 P304+P340 P305+P351+P338 P312

Cat No.	Grade	Assay	Info.	Per
ESC55064		99%		500g

**CALCIUM SULPHATE (PLASTER OF PARIS)** $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O} = 145.15\text{g/mol}$ **UN Class:** N/A**EC No.:** 231-900-3**Cas No.:** 10034-76-1**Index No.:** Not listed**Hazard:** Not considered hazardous**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55059		N/A		500g
ESC55060		N/A		1kg

**CALCIUM TETRAHYDROGEN PHOSPHATE (CALCIUM PHOSPHATE MONOBASIC)** $\text{Ca(H}_2\text{PO}_4)_2 \cdot \text{H}_2\text{O} = 252.07\text{g/mol}$ **UN Class:** N/A**EC No.:** 231-837-1

Warning

**Cas No.:** 10031-30-8**Index No.:** Not listed**Hazard:** H315 H319 H335**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55068		97%		500g

**DL-CAMPOR - SYNTHETIC (1,7,7-TRIMETHYLBICYCLO[2.2.1]HEPTAN-2-ONE)** $\text{C}_{10}\text{H}_{16}\text{O} = 152.24\text{g/mol}$ **UN Class:** 4.1 /UN2717 PG-III**EC No.:** 200-945-0

Warning

**Cas No.:** 76-22-2**Index No.:** Not listed**Hazard:** H228 H302 H315 H319 H335**Precaution:** P210 P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55070		97%		100g

**CANADA BALSAM IN XYLENE**

N/A

**UN Class:** 3 /UN1307 PG-III**EC No.:** N/A

Warning

**Cas No.:** N/A**Index No.:** Not listed**Hazard:** H226 H332 H312 H315**Precaution:** P280

Cat No.	Grade	Assay	Info.	Per
ESC55072		97%		25ml





**CARMINE ACETIC**

N/A



**UN Class:** 8 /UN1760 PG-III **EC No.:** N/A **Danger**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H314  
**Precaution:** P260 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55076		98%		500ml

**CARBAMIDE SEE UREA****CARBOLIC ACID SEE PHENOL****CARBON COLLOIDAL SEE AQUADAG****CARBON POWDER SEE GRAPHITE POWDER****CASEIN POWDER**

**UN Class:** N/A **EC No.:** 234-243-0  
**Cas No.:** 9000-71-9 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55080		59%		100g

**CASTOR OIL SEE OIL, CASTOR****CATECHOL (BENZENE-1,2-DIOL OR PYROCATECHOL)** $C_6H_4(OH)_2 = 110.11g/mol$ 

**UN Class:** 6.1 /UN2811 PG-III **EC No.:** 204-427-5 **Warning**  
**Cas No.:** 120-80-9 **Index No.:** 604-016-00-4  
**Hazard:** H302 H312 H315 H319  
**Precaution:** P280 P305+P351+P338 P301+P312 P302+P352

Cat No.	Grade	Assay	Info.	Per
ESC55082		98%		100g

**CERIUM (IV) SULPHATE (CERIC SULPHATE)** $Ce(SO_4)_2 \cdot 4H_2O = 404.3g/mol$ 

**UN Class:** N/A **EC No.:** 237-029-5 **Warning**  
**Cas No.:** 10294-42-5 **Index No.:** Not listed  
**Hazard:** H315 H319 H335  
**Precaution:** P261 P305+P351+P338 P302+P352

Cat No.	Grade	Assay	Info.	Per
ESC55083		98%		25g

**CHARCOAL-ACTIVATED (FOR GAS ABSORPTION 8-24 MESH)**

**UN Class:** 4.2 /UN1362 PG-III **EC No.:** 231-153-3  
**Cas No.:** 7440-44-0 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required  
**Notes:** For Gas Absorption 8-24 Mesh

Cat No.	Grade	Assay	Info.	Per
ESC55086		95%		250g
ESC55087		95%		500g

**CHARCOAL WOOD LUMP**

**UN Class:** N/A **EC No.:** 231-153-3  
**Cas No.:** 7440-44-0 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55089		N/A		1kg

**CHLORINE WATER**

**UN Class:** 8(5.1) /UN1791 PG-II **EC No.:** 231-668-3 **Warning**  
**Cas No.:** 7681-52-9 **Index No.:** 017-011-00-1  
**Hazard:** H315 H319  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Price	Per
ESC55091		98%		15.95	500ml

**CHLOROACETIC ACID** $ClCH_2COOH = 94.5g/mol$ 

**UN Class:** 6.1(8) /UN1751 PG-II **EC No.:** 201-178-4 **Danger**  
**Cas No.:** 79-11-8 **Index No.:** 607-003-00-1  
**Hazard:** H331 H311 H301 H314 H400  
**Precaution:** P261 P273 P280 P301+P310 P501

Cat No.	Grade	Assay	Info.	Per
ESC55093		99%		100g

**CHLOROBENZENE** $C_6H_5Cl = 112.56g/mol$ 

**UN Class:** 3 /UN1134 PG-III **EC No.:** 203-628-5 **Warning**  
**Cas No.:** 108-90-7 **Index No.:** 602-033-00-1  
**Hazard:** H226 H332 H411 H302 H315  
**Precaution:** P273

Cat No.	Grade	Assay	Info.	Per
ESC55096		99%		2.5L

**1-CHLOROBUTANE (BUTYL CHLORIDE)** $CH_3(CH_2)_3Cl = 92.57g/mol$ 

**UN Class:** 3 /UN1127 PG-II **EC No.:** 203-696-6 **Danger**  
**Cas No.:** 109-69-3 **Index No.:** 602-059-00-3  
**Hazard:** H225 H304 H412  
**Precaution:** P210 P273 P301+P310 P331 P403+P235

Cat No.	Grade	Assay	Info.	Per
ESC54766		98%		1L



**1-CHLOROBUTANE (BUTYL CHLORIDE)** $\text{CH}_3(\text{CH}_2)_3\text{Cl} = 92.57\text{g/mol}$ 

-12°C

**UN Class:** 3 /UN1127 PG-II**EC No.:** 203-696-6

Danger

**Cas No.:** 109-69-3**Index No.:** 602-059-00-3**Hazard:** H225 H304 H412**Precaution:** P210 P273 P301+P310 P331 P403+P235

Cat No.	Grade	Assay	Info.	Per
ESC54767		98%		100mL

**CHROMIUM (III) NITRATE 9-WATER** $\text{Cr}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O} = 400.15\text{g/mol}$ **UN Class:** 5.1 /UN2720 PG-III**EC No.:** 236-921-1

Warning

**Cas No.:** 7789-02-8**Index No.:** Not listed**Hazard:** H272 H315 H319**Precaution:** P210 P280 P305+P351+P338 P337+P313

Cat No.	Grade	Assay	Info.	Per
ESC55108		96%		500g

**CHLOROFORM (TRICHLOROMETHANE)** $\text{CHCl}_3 = 119.38\text{g/mol}$ **UN Class:** 6.1 /UN1888 PG-III**EC No.:** 200-663-8

Warning

**Cas No.:** 67-66-3**Index No.:** 602-006-00-4**Hazard:** H351 H302 H373 H315**Precaution:** P281 P302+P352 P309+P311

Cat No.	Grade	Assay	Info.	Per
ESC55100		99.5%		2.5L

**CHROMIUM (III) OXIDE** $\text{Cr}_2\text{O}_3 = 151.99\text{g/mol}$ **UN Class:** N/A**EC No.:** 215-160-9**Cas No.:** 1308-38-9**Index No.:** Not listed**Hazard:** Not considered hazardous**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55112		99%		500g

**2-CHLORO-2-METHYLPROPANE (TERT-BUTYL CHLORIDE)** $(\text{CH}_3)_3\text{CCl} = 92.57\text{g/mol}$ 

-9°C

**UN Class:** 3 /UN1127 PG-II**EC No.:** 208-066-4

Danger

**Cas No.:** 507-20-0**Index No.:** Not listed**Hazard:** H225**Precaution:** P210

Cat No.	Grade	Assay	Info.	Per
ESC55102		98%		100ml

**CHROMIUM (III) POTASSIUM SULPHATE 12-WATER (ALUM CHROME)** $\text{CrK}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O} = 499.39\text{g/mol}$ **UN Class:** N/A**EC No.:** 233-401-6

Warning

**Cas No.:** 7788-99-0**Index No.:** Not listed**Hazard:** H315 H319**Precaution:** P280 P302+P352 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55116		99%		500g

**CHOLESTEROL** $\text{C}_{27}\text{H}_{46}\text{O} = 386.66\text{g/mol}$ **UN Class:** N/A**EC No.:** 200-353-2**Cas No.:** 57-88-5**Index No.:** Not listed**Hazard:** Not considered hazardous**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55103		95%		25g

**CINNAMIC ACID (3-PHENYLACRYLIC ACID)** $\text{C}_6\text{H}_5\text{CH}=\text{CH} \cdot \text{COOH} = 148.16\text{g/mol}$ **UN Class:** N/A**EC No.:** 205-398-1

Warning

**Cas No.:** 140-10-3**Index No.:** Not listed**Hazard:** H315 H319 H335**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55118		99%		100g



**CITRIC ACID ANHYDROUS** $\text{HOC}(\text{COOH})(\text{CH}_2\text{COOH})_2 = 192.13\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 201-069-1 **Warning**  
**Cas No.:** 77-92-9 **Index No.:** Not listed  
**Hazard:** H319  
**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55128		99.5%		500g

**CITRIC ACID 1-WATER** $\text{HOC}(\text{COOH})(\text{CH}_2\text{COOH})_2 \cdot \text{H}_2\text{O} = 210.14\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 201-069-1 **Danger**  
**Cas No.:** 5949-29-1 **Index No.:** Not listed  
**Hazard:** H318 H335 H315  
**Precaution:** P261 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55122		99%		500g
ESC55123		99%		1kg

**CLAY POWDER**

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55125		N/A		1kg

**COBALT METAL - POWDER**

Co = 58.93g/mol



**UN Class:** 4.1 /UN3089 PG-II **EC No.:** 231-158-0 **Danger**  
**Cas No.:** 7440-48-4 **Index No.:** 027-001-00-9  
**Hazard:** H334 H317 H413  
**Precaution:** P261 P280 P342+P311

Cat No.	Grade	Assay	Info.	Per
ESC55130		98%		250g

**COBALT (II) CARBONATE BASIC** $\text{CoCO}_3 \cdot [\text{Co}(\text{OH})_2]_n \cdot \text{H}_2\text{O} = 516.72\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 208-169-4 **Danger**  
**Cas No.:** 57454-67-8 **Index No.:** 027-010-00-8  
**Hazard:** H350i H341 H360F H334 H317 H410  
**Precaution:** P261 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55132		Co = 45-50%		500g

**COBALT (II) CHLORIDE 6-WATER** $\text{CoCl}_2 \cdot 6\text{H}_2\text{O} = 237.93\text{g/mol}$ 

**UN Class:** 9 /UN3077 PG-III **EC No.:** 231-589-4 **Danger**  
**Cas No.:** 7791-13-1 **Index No.:** 027-004-00-5  
**Hazard:** H350i H341 H360F H302 H334 H317 H410  
**Precaution:** P201 P261 P273 P280 P302+P352 P308+P313 P501

Cat No.	Grade	Assay	Info.	Per
ESC55134		98%		250g

**COBALT (II) NITRATE 6-WATER** $\text{Co}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O} = 291.03\text{g/mol}$ 

**UN Class:** 5.1 /UN1477 PG-II **EC No.:** 233-402-1 **Danger**  
**Cas No.:** 10026-22-9 **Index No.:** Not listed  
**Hazard:** H272 H302 H317 H350i H341 H360DF H334  
**Precaution:** P201 P210 P220 P273 P261 P280 P284 P304+P340

Cat No.	Grade	Assay	Info.	Per
ESC55136		97%		500g

**COBALT (II) OXIDE - BLACK (TRICOBALT TETRAOXIDE)** $\text{Co}_3\text{O}_4 = 240.8\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 215-157-2 **Danger**  
**Cas No.:** 1308-06-1 **Index No.:** Not listed  
**Hazard:** H334 H350i H412  
**Precaution:** P201 P261 P273 P284 P304+P340

Cat No.	Grade	Assay	Info.	Per
ESC55142		97%		100g

**COBALT (II) SULPHATE 7-WATER** $\text{CoSO}_4 \cdot 7\text{H}_2\text{O} = 281.1\text{g/mol}$ 

**UN Class:** 9 /UN3077 PG-III **EC No.:** 233-334-2 **Danger**  
**Cas No.:** 10026-24-1 **Index No.:** 027-005-00-0  
**Hazard:** H350i H341 H360F H302 H334 H317 H410  
**Precaution:** P201 P273 P281 P285 P302+P352 P304+P341 P309+P311

Cat No.	Grade	Assay	Info.	Per
ESC55138		97%		100g

**COPPER METAL - POWDER - FINE**

Cu = 63.55g/mol



**UN Class:** 4.1 /UN3089 PG-II **EC No.:** 231-159-6 **Danger**  
**Cas No.:** 7440-50-8 **Index No.:** 027-005-00-0  
**Hazard:** H228 H410  
**Precaution:** P210 P273

Cat No.	Grade	Assay	Info.	Per
ESC55172		99%		100g







## COPPER METAL

Cu = 63.55g/mol

UN Class: N/A EC No.: 231-159-6  
 Cas No.: 7440-50-8 Index No.: Not listed

Hazard: Not considered hazardous  
 Precaution: No additional precautions required


Cat No.	Grade	Assay	Info.	Per
ESC55176		98%	Granules	100g
ESC55177		98%	Millings	500g

## COPPER METAL - FOIL 0.25 MM

Cu = 63.55g/mol

UN Class: N/A EC No.: 231-159-6  
 Cas No.: 7440-50-8 Index No.: Not listed

Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55180		99%		250g


## COPPER (I) CHLORIDE (CUPROUS CHLORIDE)

CuCl = 99g/mol



UN Class: 8 / UN2802 PG-III EC No.: 231-842-9 Warning  
 Cas No.: 7758-89-6 Index No.: 029-001-00-4

Hazard: H302 H315 H318 H410  
 Precaution: P273 P280 P305+P351+P338 P501



Cat No.	Grade	Assay	Info.	Per
ESC55146		96%		500g

## COPPER (I) OXIDE (CUPROUS OXIDE)

Cu<sub>2</sub>O = 143.09g/mol

UN Class: 9 / UN3077 PG-III EC No.: 215-270-7 Warning  
 Cas No.: 1317-39-1 Index No.: 029-002-00-X

Hazard: H302 H410  
 Precaution: P273 P501


Cat No.	Grade	Assay	Info.	Per
ESC55163		95%		100g
ESC55165		95%		500g

## CHROMIUM (III) CHLORIDE 6-WATER (CHROMIUM TRICHLORIDE)

CrCl<sub>3</sub> • 6H<sub>2</sub>O = 266.45g/mol

UN Class: N/A EC No.: 233-038-3  
 Cas No.: 10060-12-5 Index No.: Not listed

Hazard: H302  
 Precaution: P301+P312 P310


Cat No.	Grade	Assay	Info.	Per
ESC55104		95%		500g

## COPPER (II) BROMIDE (CUPRIC BROMIDE)

CuBr<sub>2</sub> = 223.35g/mol

UN Class: 8 / UN3260 PG-III EC No.: 232-167-2 Danger  
 Cas No.: 7789-45-9 Index No.: Not listed

Hazard: H302 H314 H400 H410  
 Precaution: P280 P273 P301+P330+P331 P304+P340 P309+P311 P310



Cat No.	Grade	Assay	Info.	Per
ESC55144		98%		100g

## COPPER (II) CARBONATE BASIC (CUPRIC CARBONATE BASIC)

CuCO<sub>3</sub> • Cu(OH)<sub>2</sub> = 221.12g/mol

UN Class: N/A EC No.: 235-113-6 Warning  
 Cas No.: 12069-69-1 Index No.: Not listed

Hazard: H302 H315 H319 H335 H400  
 Precaution: P261 P273 P305+P351+P338


Cat No.	Grade	Assay	Info.	Per
ESC55151		Cu = 54%		250g
ESC55152		Cu = 54%		500g

## COPPER (II) CHLORIDE 2-WATER (CUPRIC CHLORIDE)

CuCl<sub>2</sub> • 2H<sub>2</sub>O = 170.48g/mol

UN Class: 8 / UN2802 PG-III EC No.: 231-210-2 Warning  
 Cas No.: 10125-13-0 Index No.: Not listed

Hazard: H302 H315 H319 H335 H400  
 Precaution: P261 P273 P280 P305+P351+P338 P391


Cat No.	Grade	Assay	Info.	Per
ESC55156		96%		500g

## COPPER (II) NITRATE 3-WATER (CUPRIC NITRATE)

Cu(NO<sub>3</sub>)<sub>2</sub> • 3H<sub>2</sub>O = 241.6g/mol

UN Class: 5.1 / UN1477 PG-II EC No.: 221-838-5 Danger  
 Cas No.: 10031-43-3 Index No.: Not listed

Hazard: H272 H302 H315 H319 H400  
 Precaution: P210 P273 P280 P302+P352 P305+P351+P338 P309+P311

Cat No.	Grade	Assay	Info.	Per
ESC55160		98.5%		500g



**COPPER (II) SULPHATE - ANHYDROUS (CUPRIC SULPHATE)** $\text{CuSO}_4 = 159.61\text{g/mol}$ 

**UN Class:** 9 /UN3077 PG-III **EC No.:** 231-847-6 **Warning**  
**Cas No.:** 7758-98-7 **Index No.:** 029-004-00-0  
**Hazard:** H302 H319 H315 H410  
**Precaution:** P273 P305+P351+P338 P501

Cat No.	Grade	Assay	Info.	Per
ESC55184		97%		500g

**CRYSTAL VIOLET C.I.42555 (BASIC VIOLET 3, GENTIAN VIOLET)** $\text{C}_{25}\text{H}_{30}\text{N}_3\text{Cl} = 407.98\text{g/mol}$ 

**UN Class:** 9 /UN3077 PG-III **EC No.:** 208-953-6 **Danger**  
**Cas No.:** 548-62-9 **Index No.:** 612-204-00-2  
**Hazard:** H351 H302 H318 H410  
**Precaution:** P273 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55200		N/A		50g

**COPPER (II) OXIDE (CUPRIC OXIDE)** $\text{CuO} = 79.55\text{g/mol}$ 

**UN Class:** 9 /UN3077 PG-III **EC No.:** 215-269-1 **Warning**  
**Cas No.:** 1317-38-0 **Index No.:** Not listed  
**Hazard:** H302 H410  
**Precaution:** P273 P501

Cat No.	Grade	Assay	Info.	Per
ESC55167		96%	Black powder	250g
ESC55168		96%	Black powder	500g

**CRYSTAL VIOLET AQUEOUS SOLUTION** $\text{C}_{25}\text{H}_{30}\text{N}_3\text{Cl} = 407.98\text{g/mol}$ 

**UN Class:** N/A **EC No.:** N/A **Warning**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H319 H351 H411  
**Precaution:** P273 P281 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55202		1%	Aq. Solution	100ml

**COPPER (II) SULPHATE 5-WATER (CUPRIC SULPHATE PENTAHYDRATE)** $\text{CuSO}_4 \cdot 5\text{H}_2\text{O} = 249.69\text{g/mol}$ 

**UN Class:** 9 /UN3077 PG-III **EC No.:** 231-847-6 **Warning**  
**Cas No.:** 7758-99-8 **Index No.:** 029-004-00-0  
**Hazard:** H302 H319 H315 H410  
**Precaution:** P273 P305+P351+P338 P501

Cat No.	Grade	Assay	Info.	Per
ESC55186		98%	Black powder	500g

**CYCLOHEXANE** $\text{C}_6\text{H}_{12} = 84.16\text{g/mol}$ 

**UN Class:** 3 /UN1145 PG-II **EC No.:** 203-806-2 **Danger**  
**Cas No.:** 110-82-7 **Index No.:** 601-017-00-1  
**Hazard:** H225 H304 H315 H336 H410  
**Precaution:** P210 P261 P273 P301+P330+P331 P331 P501

Cat No.	Grade	Assay	Info.	Per
ESC55206		98%	Aq. Solution	500ml

**CYCLOHEXANOL** $\text{C}_6\text{H}_{11}\text{OH} = 100.16\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 203-630-6 **Warning**  
**Cas No.:** 108-93-0 **Index No.:** 603-009-00-3  
**Hazard:** H332 H302 H335 H315  
**Precaution:** P261  
**Notes:** High M.P.T Solid at Room temperature

Cat No.	Grade	Assay	Info.	Per
ESC55210		99%		500ml

**CYCLOHEXANONE** $\text{CH}_3(\text{CH}_2)_4\text{CO} = 98.14\text{g/mol}$ 

**UN Class:** 3 /UN1915 PG-III **EC No.:** 203-631-1 **Warning**  
**Cas No.:** 108-94-1 **Index No.:** 606-010-00-7  
**Hazard:** H226 H332  
**Precaution:** P210 P243 P280 P304+P340 P313

Cat No.	Grade	Assay	Info.	Per
ESC55213		99%		500ml

**CRESOL RED INDICATOR (O-CRESOLSULFONPHTHALEIN)** $\text{C}_{21}\text{H}_{18}\text{O}_5\text{S} = 382.43\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 217-064-2 **Warning**  
**Cas No.:** 1733-12-6 **Index No.:** Not listed  
**Hazard:** H315 H319 H335  
**Precaution:** P261 P280 P302+P352 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55196		N/A	pH 0.2-1.8, pH 7.2-8.8	25g

**CRESOL RED 0.02% AQUEOUS SOLUTION**

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** 1733-12-6 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required  
**Notes:** pH 0.2-1.8 - Red to Yellow; pH 7.2-8.8 - Yellow to Red

Cat No.	Grade	Assay	Info.	Per
ESC55192		0.02%	Solution	500ml



**CYCLOHEXENE (TETRAHYDROBENZENE)** $C_6H_{10} = 82.15g/mol$ 

**UN Class:** 3 /UN2256 PG-II **EC No.:** 203-807-8 **Danger**  
**Cas No.:** 110-83-8 **Index No.:** Not listed  
**Hazard:** H225 H302 H311 H304  
**Precaution:** P210 P280 P304 P301+P312 P331

Cat No.	Grade	Assay	Info.	Per
ESC55215		99%		500ml
ESC55216		99%		1L

**DECANE** $CH_3(CH_2)_8CH_3 = 142.28g/mol$ 

**UN Class:** 3 /UN2247 PG-III **EC No.:** 204-686-4 **Danger**  
**Cas No.:** 124-18-5 **Index No.:** Not listed  
**Hazard:** H226 H304  
**Precaution:** P301+P310 P331

Cat No.	Grade	Assay	Info.	Per
ESC55218		99%		25ml

**DECANEDIOYL CHLORIDE SEE SEBACOYL CHLORIDE****1,2-DIAMINOETHANE SEE ETHYLENEDIAMINE****1,6-DIAMINOHEXANE (HEXAMETHYLENEDIAMINE)** $NH_2(CH_2)_6NH_2 = 116.21g/mol$ 

**UN Class:** 8 /UN2280 PG-III **EC No.:** 204-679-6 **Danger**  
**Cas No.:** 124-09-4 **Index No.:** 612-104-00-9  
**Hazard:** H314 H302 H312 H335  
**Precaution:** P261 P280 P304 P305+P351+P338 P312

Cat No.	Grade	Assay	Info.	Per
ESC55219		98%		25g

**1,6-DIAMINOHEXANE 5% AQUEOUS SOLUTION**

N/A



**UN Class:** 8 /UN3267 PG-III **EC No.:** 204-679-6 **Warning**  
**Cas No.:** 124-09-4 **Index No.:** Not listed  
**Hazard:** H315 H319  
**Precaution:** P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55220		5%	Aq. Solution	250ml

**2,4-DINITROPHENYLHYDRAZINE (DNPH)** $(NO_2)_2C_6H_3NHNH_2 = 198.14g/mol$ 

**UN Class:** 4.1 /UN3380 PG-I **EC No.:** 204-309-3 **Danger**  
**Cas No.:** 119-26-6 **Index No.:** Not listed  
**Hazard:** H228 H302  
**Precaution:** P210 P240 P280 P302 P312

Cat No.	Grade	Assay	Info.	Per
ESC54772		97%	SURCHARGE	50g

**DIBUTYL PHTHALATE (N-BUTYL PHTHALATE)** $C_6H_4-1,2-[CO_2(CH_2)_3CH_3]_2 = 278.35g/mol$ 

**UN Class:** 9 /UN3082 PG-III **EC No.:** 201-557-4 **Danger**  
**Cas No.:** 84-74-2 **Index No.:** 607-318-00-4  
**Hazard:** H360Df H400  
**Precaution:** P201 P273 P308+P313

Cat No.	Grade	Assay	Info.	Per
ESC55221		99%		1L

**DICHLOROACETIC ACID** $Cl_2CHCOOH = 128.94g/mol$ 

**UN Class:** 8 /UN1764 PG-II **EC No.:** 201-207-0 **Danger**  
**Cas No.:** 79-43-6 **Index No.:** 607-066-00-5  
**Hazard:** H314 H400  
**Precaution:** P273 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55223		98%		100ml

**1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)** $C_6H_4Cl_2 = 147g/mol$ 

**UN Class:** 9 /UN3077 PG-III **EC No.:** 203-400-5 **Warning**  
**Cas No.:** 106-46-7 **Index No.:** 602-035-00-2  
**Hazard:** H351 H319 H410  
**Precaution:** P201 P273 P281 P305+P351+P338 P308+P313

Cat No.	Grade	Assay	Info.	Per
ESC55225		97%		250g

**DICHLOROMETHANE (METHYLENE CHLORIDE)** $CH_2Cl_2 = 84.93g/mol$ 

**UN Class:** 6.1 /UN1593 PG-III **EC No.:** 200-838-9 **Warning**  
**Cas No.:** 75-09-2 **Index No.:** 602-004-00-3  
**Hazard:** H351  
**Precaution:** P260 P281 P308+P313 P501 P403+P235

Cat No.	Grade	Assay	Info.	Per
ESC55240		98%		2.5L





## DIPHENYLAMINE

 $(C_6H_5)_2NH = 169.23g/mol$ 

UN Class: 9 /UN3077 PG-III EC No.: 204-539-4 Danger  
 Cas No.: 122-39-4 Index No.: 612-026-00-5  
 Hazard: H331 H311 H301 H373 H410  
 Precaution: P273 P280 P302+P352 P304+P340 P309 P311

Cat No.	Grade	Assay	Info.	Per
ESC55242		99%		100g

## EDTA DISODIUM SALT (ETHYLENEDIAMINETETRAACETIC ACID)

 $C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O = 372.24g/mol$ 

UN Class: N/A EC No.: 205-358-3 Warning  
 Cas No.: 6381-92-6 Index No.: Not listed  
 Hazard: H332 H373  
 Precaution: P260

Cat No.	Grade	Assay	Info.	Per
ESC55268		98%		500g

## 2,6-DICHLOROPHENOLINDOPHENOL (DCPIP)

UN Class: N/A EC No.: N/A  
 Cas No.: 620-45-1 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC54778		96%	Powder	1g
ESC54779		96%	Powder	5g

## EOSIN C.I.45380 (ACID RED 87)

N/A



UN Class: N/A EC No.: 241-409-6 Warning  
 Cas No.: 17372-87-1 Index No.: Not listed  
 Hazard: H319  
 Precaution: P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55276		N/A	Powder	5g

## DIETHYL ETHER (ETHOXYETHANE)

 $(CH_3CH_2)_2O = 74.12g/mol$ 

UN Class: 3 /UN1155 PG-I EC No.: 200-467-2 Danger  
 Cas No.: 60-29-7 Index No.: 603-022-00-4  
 Hazard: H224 H302 H336 EUH019 EUH066  
 Precaution: P210 P261

Cat No.	Grade	Assay	Info.	Per
ESC55244		98%	SURCHARGE	1L

## EOSIN 5% AQUEOUS SOLUTION

UN Class: N/A EC No.: N/A  
 Cas No.: N/A Index No.: Not listed

Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55272		5%	Aq. Solution	100ml

## ERIOCHROME BLACK T C.I.14645

 $C_{20}H_{12}N_3NaO_7S = 461.38g/mol$ 

UN Class: N/A EC No.: 241-409-6  
 Cas No.: 1787-61-7 Index No.: Not listed

Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55280		N/A	6.2 - 11.55	50g
ESC55281		N/A	6.2 - 11.55	100g

## DITHIZONE (1,5-DIPHENYL-3-THIOCARBAZONE)

 $C_6H_5NHNHCSN=NC_6H_5 = 256.32g/mol$ 

UN Class: N/A EC No.: 200-454-1 Warning  
 Cas No.: 60-10-6 Index No.: Not listed  
 Hazard: H315 H319 H335  
 Precaution: P280 P302+P352 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55246		98%		5g

## DUTCH METAL LEAF

UN Class: N/A EC No.: N/A  
 Cas No.: N/A Index No.: Not listed

Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55264		N/A	140 x 150mm	Bk25

## ETHANOL (ETHYL ALCOHOL)

 $C_2H_5OH = 46.07g/mol$ 

UN Class: 3 /UN1170 PG-II EC No.: 200-578-6 Danger  
 Cas No.: 64-17-5 Index No.: 603-002-00-5  
 Hazard: H225  
 Precaution: P210

Cat No.	Grade	Assay	Info.	Per
ESC55288		99.9%		2.5L



ETHANAL SEE ACETALDEHYDE

ETHANEDIOIC ACID SEE OXALIC ACID

ETHANOIC ACID SEE ACETIC ACID

ETHANOIC ANHYDRIDE SEE ACETIC ANHYDRIDE

ETHOXYETHANE SEE DIETHYL ETHER

**ETHYL ACETATE (ETHYL ETHANOATE)** $\text{CH}_3\text{COOC}_2\text{H}_5 = 88.11\text{g/mol}$ 

-4°C

**UN Class:** 3 /UN1173 PG-II **EC No.:** 205-500-4 **Danger**  
**Cas No.:** 141-78-6 **Index No.:** 607-022-00-5  
**Hazard:** H225 H319 H336  
**Precaution:** P210 P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55284		99%		2.5L

**ETHYLAMINE 70% W/W SOLUTION (70% W/W IN WATER)** $\text{C}_2\text{H}_5\text{NH}_2 = 45.08\text{g/mol}$ 

-20°C

**UN Class:** 2.1 /UN1036 PG-II **EC No.:** 200-834-7 **Danger**  
**Cas No.:** 75-04-7 **Index No.:** 612-002-00-4  
**Hazard:** H225 H302 H311 H314 H335  
**Precaution:** P210 P261 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55296		70%		1L
ESC55297		70%		2.5L

**ETHYL-4-AMINO BENZOATE (BENZOCAINE)** $\text{NH}_2\text{C}_6\text{H}_4\text{COOC}_2\text{H}_5 = 165.19\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 202-303-5 **Warning**  
**Cas No.:** 94-09-7 **Index No.:** Not listed  
**Hazard:** H317  
**Precaution:** P280 P302+P352

Cat No.	Grade	Assay	Info.	Per
ESC55291		99%		50g

**ETHYL BENZOATE** $\text{C}_6\text{H}_5\text{COOC}_2\text{H}_5 = 150.17\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 202-284-3  
**Cas No.:** 93-89-0 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55292		99%		100ml

**ETHYLENEDIAMINE (1,2-DIAMINOETHANE)** $\text{NH}_2\text{CH}_2\text{CH}_2\text{NH}_2 = 60.1\text{g/mol}$ 

**UN Class:** 8(3) /UN1604 PG-II **EC No.:** 203-468-6  
**Cas No.:** 107-15-3 **Index No.:** 612-006-00-6  
**Hazard:** H226 H312 H302 H314 H334 H317  
**Precaution:** P210 P243 P261 P280 P285 P301+P330+P331 P302+P352 P304+P340 P309

Cat No.	Grade	Assay	Info.	Per
ESC55308		97%		1L

**ETHYL FORMATE (FORMIC ACID ETHYL ESTER)** $\text{HCOOC}_2\text{H}_5 = 74.08\text{g/mol}$ 

-20°C

**UN Class:** 3 /UN1190 PG-II **EC No.:** 203-721-0 **Danger**  
**Cas No.:** 109-94-4 **Index No.:** 607-015-00-7  
**Hazard:** H225 H332 H302 H319 H335  
**Precaution:** P210 P240 P280 P304+P340 P305+P351+P338 P309

Cat No.	Grade	Assay	Info.	Per
ESC55310		98%		100ml

**ETHYLENE GLYCOL (ETHANE-1,2-DIOL)** $\text{HOCH}_2\text{CH}_2\text{OH} = 62.07\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 203-473-3 **Warning**  
**Cas No.:** 107-21-1 **Index No.:** 603-027-00-1  
**Hazard:** H302  
**Precaution:** P301+P312

Cat No.	Grade	Assay	Info.	Per
ESC55304		99%		2.5L

**EVOLVE CH15 (COLD DEGREASING AGENT)**

N/A



**UN Class:** 3 /UN3295 PG-III **EC No.:** N/A **Danger**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H350 H340 H304 EUH066  
**Precaution:** P201 P281 P301+P310 P308+P313

Cat No.	Grade	Assay	Info.	Per
ESC55306		N/A		500ml

**FEHLING'S SOLUTION NO.1 (COPPER SULPHATE SOLUTION)**

N/A



**UN Class:** N/A **EC No.:** N/A **Warning**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H411  
**Precaution:** P273

Cat No.	Grade	Assay	Info.	Per
ESC55312		N/A		1L



## FEHLING'S SOLUTION NO.2 (ALKALINE TARTRATE)

N/A



**UN Class:** 8 /UN1824 PG-II **EC No.:** N/A **Danger**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H314  
**Precaution:** P260 P280 P301+P330+P331 P309+P311

Cat No.	Grade	Assay	Info.	Per
ESC55316		N/A		1L

## FERROIN INDICATOR SOLUTION (1,10-PHENANTHROLINE IRONII SULFATE COMPLEX)

N/A



**UN Class:** N/A **EC No.:** N/A **Warning**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H411  
**Precaution:** P273

Cat No.	Grade	Assay	Info.	Per
ESC55318		N/A		100ml

## FLUORESCCEIN C.I.45350 (ACID YELLOW 73)

 $C_{20}H_{12}O_5 = 332.31g/mol$ 

**UN Class:** N/A **EC No.:** 219-031-8 **Warning**  
**Cas No.:** 2321-07-5 **Index No.:** Not listed  
**Hazard:** H319  
**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55320		N/A		5g

## FORMALDEHYDE (METHANAL)

 $HCHO = 30.03g/mol$ 

**UN Class:** 8 /UN2209 PG-III **EC No.:** 200-001-8 **Danger**  
**Cas No.:** 50-00-0 **Index No.:** 605-001-00-5  
**Hazard:** H301 H311 H314 H317 H331 H335 H341 H350 H371  
**Precaution:** P260 P261 P280 P281 P304+P340 P305+P351+P338 P309+P311

Cat No.	Grade	Assay	Info.	Per
ESC55322			38-40% w/v	2.5L

## FORMIC ACID (METHANOIC ACID)

 $HCOOH = 46.03g/mol$ 

**UN Class:** 8(3) /UN1779 PG-II **EC No.:** 200-579-1 **Danger**  
**Cas No.:** 64-18-6 **Index No.:** 607-001-00-0  
**Hazard:** H314  
**Precaution:** P260 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55324		90%		2.5L

## FRENCH CHALK (TALC)

**UN Class:** N/A **EC No.:** 238-87-9  
**Cas No.:** 14807-96-6 **Index No.:** Not listed  
**Hazard:** H332  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55326		N/A		1kg

## D (-) FRUCTOSE (D-LEVULOSE)

 $C_6H_{12}O_6 = 180.16g/mol$ 

**UN Class:** N/A **EC No.:** 200-333-3  
**Cas No.:** 57-48-7 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55228		98%		500g

## FUCHSIN ACID STAIN C.I.42685 (ACID VIOLET 19)

 $C_{20}H_{17}N_3Na_2O_9S_3 = 585.54g/mol$ 

**UN Class:** N/A **EC No.:** 221-816-5  
**Cas No.:** 3244-88-0 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55328		98%		50g
ESC55329		98%		100g

## FUCHSIN BASIC STAIN C.I.42510 (BASIC VIOLET 14)

N/A



**UN Class:** N/A **EC No.:** 211-189-6 **Danger**  
**Cas No.:** 58969-01-0 **Index No.:** Not listed  
**Hazard:** H302 H351  
**Precaution:** P281

Cat No.	Grade	Assay	Info.	Per
ESC55330		N/A		5g

## D (+) GALACTOSE ANHYDROUS

 $C_6H_{12}O_6 = 180.16g/mol$ 


**UN Class:** N/A **EC No.:** 200-416-4  
**Cas No.:** 59-23-4 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55230		98%		25g



**GELATINE POWDER**

UN Class: N/A EC No.: 232-554-6  
 Cas No.: 9000-70-8 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required


Cat No.	Grade	Assay	Info.	Per
ESC55333		N/A		500g

**GENTIAN VIOLET SEE CRYSTAL VIOLET****GIBBERELIC ACID**

$C_{19}H_{22}O_6 = 346.37\text{g/mol}$




UN Class: N/A EC No.: 201-001-0 Warning  
 Cas No.: 77-06-5 Index No.: Not listed  
 Hazard: H319  
 Precaution: P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55334		97%		1g

**GLASS WOOL**


UN Class: N/A EC No.: N/A  
 Cas No.: N/A Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55335		N/A		500g

**D (+) GLUCOSE 1-WATER (DEXTROSE MONOHYDRATE)**

$C_6H_{12}O_6 \cdot H_2O = 198.17\text{g/mol}$


UN Class: N/A EC No.: 218-914-5  
 Cas No.: 14431-43-7 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55234		98%		500g

**GLYCEROL TRIACETATE (TRIACETIN)**

$(CH_3COO)_3C_3H_5 = 218.21\text{g/mol}$


UN Class: N/A EC No.: 203-051-9  
 Cas No.: 102-76-1 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55342		98%		500ml

**D (+) GLUCOSE ANHYDROUS (DEXTROSE)**

$C_6H_{12}O_6 = 180.16\text{g/mol}$



UN Class: N/A EC No.: 200-075-1  
 Cas No.: 50-99-7 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55236		98%		250g

**GLUCOSE-1-PHOSPHATE DISODIUM SALT**

$C_6H_{11}O_9PNa_2 \cdot xH_2O = 304.1\text{g/mol}$


UN Class: N/A EC No.: 260-154-1  
 Cas No.: 56401-20-8 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55336		98%		1g
ESC55337		98%		5g

**L-GLUTAMIC ACID**

$HO_2CCH_2CH_2CH(NH_2)CO_2H = 147.13\text{g/mol}$

UN Class: N/A EC No.: 200-293-7  
 Cas No.: 56-86-0 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required



Cat No.	Grade	Assay	Info.	Per
ESC55339		99%		100g

**GLYCEROL (GLYCERINE OR PROPANE-1,2,3-TRIOL)**

$HOCH_2CH(OH)CH_2OH = 92.09\text{g/mol}$



UN Class: N/A EC No.: 200-289-5 Warning  
 Cas No.: 56-81-5 Index No.: Not listed  
 Hazard: H319  
 Precaution: P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55340		99%		1L
ESC55341		99%		2.5L






## GLYCINE (AMINOACETIC ACID)


 $\text{NH}_2\text{CH}_2\text{COOH} = 75.07\text{g/mol}$ 

UN Class: N/A EC No.: 200-272-2  
 Cas No.: 56-40-6 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55344		98.5%		100g

## GRAM'S IODINE SOLUTION


UN Class: N/A EC No.: N/A  
 Cas No.: N/A Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55350		N/A		1L

## GRAPHITE (CARBON POWDER)

 $\text{C} = 12.01\text{g/mol}$ 

UN Class: N/A EC No.: 231-955-3 Warning  
 Cas No.: 7782-42-5 Index No.: Not listed  
 Hazard: H319 H335  
 Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55348		95%	Powder	1kg


## GUM ARABIC SEE ACACIA POWDER

## HEPTANE FRACTION FROM PETROLEUM

 $\text{CH}_3(\text{CH}_2)_5\text{CH}_3 = 100.21\text{g/mol}$ 

-25°C

UN Class: 3 /UN1206 PG-II EC No.: 205-563-8 Danger  
 Cas No.: 142-82-5 Index No.: 601-008-00-2  
 Hazard: H225 H304 H315 H336 H410  
 Precaution: P210 P241 P301+P310 P303+P361+P353 P405 P501


Cat No.	Grade	Assay	Info.	Per
ESC55648		85%		2.5L

## N-HEXANE

 $\text{CH}_3(\text{CH}_2)_4\text{CH}_3 = 86.18\text{g/mol}$ 

-23°C


UN Class: 3 /UN1208 PG-II EC No.: 203-777-6 Danger  
 Cas No.: 110-54-3 Index No.: 601-037-00-0  
 Hazard: H225 H361f H304 H373 H315 H336 H411  
 Precaution: P210 P261 P273 P281 P301+P310 P331

Cat No.	Grade	Assay	Info.	Per
ESC55652		97%		2.5L

## HEPTAN-1-OL (HEPTYL ALCOHOL)

 $\text{CH}_3(\text{CH}_2)_6\text{OH} = 116.2\text{g/mol}$ 

UN Class: N/A EC No.: 203-897-9 Warning  
 Cas No.: 111-70-6 Index No.: Not listed  
 Hazard: H302 H312 H319  
 Precaution: P280 P302+P352 P305+P351+P338 P309+P310



Cat No.	Grade	Assay	Info.	Per
ESC55352		>99%		100ml

## HEXANE FRACTION FROM PETROLEUM

 $\text{CH}_3(\text{CH}_2)_4\text{CH}_3 = 86.18\text{g/mol}$ 

-23°C

UN Class: 3 /UN1208 PG-II EC No.: 203-777-6 Danger  
 Cas No.: 110-54-3 Index No.: 601-037-00-0  
 Hazard: H225 H361f H304 H373 H315 H336 H411  
 Precaution: P210 P261 P273 P281 P301+P310 P331

Cat No.	Grade	Assay	Info.	Per
ESC55654		85%		500ml
ESC55655		85%		2.5L


## HEXANE-1,6-DIAMINE SEE 1,6-DIAMINOHEXANE

## HEXANEDIOIC ACID SEE ADIPIC ACID

## HEXANOIC ACID (CAPROIC ACID)

 $\text{CH}_3(\text{CH}_2)_4\text{COOH} = 116.16\text{g/mol}$ 

UN Class: 8 /UN2829 PG-III EC No.: 205-550-7 Danger  
 Cas No.: 142-62-1 Index No.: Not listed  
 Hazard: H311 H314 H331  
 Precaution: P261 P280 P305+P351+P338 P310


Cat No.	Grade	Assay	Info.	Per
ESC55656		99%		100ml

## HEXAN-1-OL (HEXYL ALCOHOL)

 $\text{CH}_3(\text{CH}_2)_5\text{OH} = 102.17\text{g/mol}$ 

59°C

UN Class: 3 /UN2282 PG-III EC No.: 203-852-3 Warning  
 Cas No.: 111-27-3 Index No.: 603-059-00-6  
 Hazard: H302  
 Precaution: P301+P312

Cat No.	Grade	Assay	Info.	Per
ESC55657		98%		500ml



### HEX-1-ENE

 $\text{CH}_3(\text{CH}_2)_3\text{CH}=\text{CH}_2 = 84.16/\text{mol}$ 


**UN Class:** 3 /UN2370 PG-II **EC No.:** 209-753-1 **Danger**  
**Cas No.:** 592-41-6 **Index No.:** Not listed  
**Hazard:** H225 H304  
**Precaution:** P210 P301+P310 P331

Cat No.	Grade	Assay	Info.	Per
ESC55658		98%		100ml

### HYDROCHLORIC ACID 1.0M (1.0N)

 $\text{HCl} = 36.46\text{g/mol}$ 


**UN Class:** 8 /UN1789 PG-III **EC No.:** 231-595-7 **Warning**  
**Cas No.:** 7647-01-0 **Index No.:** 017-002-01-X  
**Hazard:** H315  
**Precaution:** P261 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55357		1.0M		2.5L

### HYDROCHLORIC ACID - 36-38%

 $\text{HCl} = 36.46\text{g/mol}$ 


**UN Class:** 8 /UN1789 PG-II **EC No.:** 231-595-7 **Danger**  
**Cas No.:** 7647-01-0 **Index No.:** 017-002-01-X  
**Hazard:** H314 H335 H290  
**Precaution:** P261 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55367		37%		1L
ESC55368		36-38%	SURCHARGE	1L
ESC55369		36-38%		2.5L

### HYDROCHLORIC ACID 2M

 $\text{HCl} = 36.46\text{g/mol}$ 


**UN Class:** 8 /UN1789 PG-III **EC No.:** 231-595-7 **Warning**  
**Cas No.:** 7647-01-0 **Index No.:** 017-002-01-X  
**Hazard:** H314 H315 H335  
**Precaution:** P261 P302+P352 P304+P340 P305+P351+P338 P309+P311

Cat No.	Grade	Assay	Info.	Per
ESC55360		2.0M	Ampoule	1L

### HYDROCHLORIC ACID 0.1M (0.1N)

 $\text{HCl} = 36.46\text{g/mol}$ 

**UN Class:** 8 /UN1789 PG-III **EC No.:** 231-595-7  
**Cas No.:** 7647-01-0 **Index No.:** 017-002-01-X  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55355		0.1M		2.5L

### HYDROCHLORIC ACID 4M (4N)

 $\text{HCl} = 36.46\text{g/mol}$ 


**UN Class:** 8 /UN1789 PG-III **EC No.:** 231-595-7 **Warning**  
**Cas No.:** 7647-01-0 **Index No.:** 017-002-01-X  
**Hazard:** H315 H319 H335  
**Precaution:** P261 P302+P352 P304+P340 P305+P351+P338 P309+P311

Cat No.	Grade	Assay	Info.	Per
ESC55362		4.0M	Ampoule	1L

### HYDROCHLORIC ACID 1.0M (1.0N) CVS

 $\text{HCl} = 36.46\text{g/mol}$ 


**UN Class:** 8 /UN1789 PG-III **EC No.:** 231-595-7 **Danger**  
**Cas No.:** 7647-01-0 **Index No.:** 017-002-01-X  
**Hazard:** H314 H335  
**Precaution:** P261 P280 P305+P351+P338 P310  
**Notes:** 6 x 1M 100ml ampoules, each makes 1L of 0.1M solution.  
**Chemical info shown for ampoule not diluted solution.**

Cat No.	Grade	Assay	Info.	Per
ESC55356		0.1M	Ampoule	6

### HYDROGEL (SODIUM POLYACRYLATE)

 $(\text{C}_3\text{H}_3\text{NaO}_2)_n$ 

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** 9003-04-7 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55372		95%		500g



## HYDROQUINONE (BENZENE-1,4-DIOL OR QUINOL)

 $C_6H_4(OH)_2 = 110.11g/mol$ 

UN Class: 9 / UN3077 PG-III EC No.: 204-617-8  
 Cas No.: 123-31-9 Index No.: 604-005-00-4  
 Hazard: H351 H341 H302 H318 H317 H400  
 Precaution: P273 P280 P305+P351+P338 P301+P312

Cat No.	Grade	Assay	Info.	Per
ESC55374		99%		100g

## HYDROGEN PEROXIDE 20 VOLS (DIOXIDANE)

 $H_2O_2 = 34.01g/mol$ 

UN Class: N/A EC No.: 231-765-0 Warning  
 Cas No.: 7722-84-1 Index No.: 008-003-00-9  
 Hazard: H302 H319  
 Precaution: P305+P351+P338 P337+P313

Cat No.	Grade	Assay	Info.	Per
ESC55380		6% w/v		2L

## HYDROGEN PEROXIDE 100 VOLS (DIOXIDANE)

 $H_2O_2 = 34.01g/mol$ 

UN Class: 5.1 / UN2014 PG-II EC No.: 231-765-0 Danger  
 Cas No.: 7722-84-1 Index No.: 008-003-00-9  
 Hazard: H302 H315 H318 H355  
 Precaution: P261 P280 P301+P312 P302+P351 P304+P340 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55376		29-30%		1L
ESC55378		29-30%		500ml

## HYDROXYLAMMONIUM CHLORIDE (HYDROXYLAMINE HYDROCHLORIDE)

 $NH_2OH \cdot HCl = 69.49g/mol$ 

UN Class: 8(6.1) / UN2923 PG-II EC No.: 226-798-2 Warning  
 Cas No.: 5470-11-1 Index No.: 612-123-00-2  
 Hazard: H290 H351 H312 H302 H373 H319 H315 H317 H400  
 Precaution: P201 P273 P281 P302+P352 P305+P351+P338 P309+P311

Cat No.	Grade	Assay	Info.	Per
ESC55382		98%		100g

## INDIGO CARMINE C.I.73015

N/A



UN Class: N/A EC No.: 212-728-8 Warning  
 Cas No.: 860-22-0 Index No.: Not listed  
 Hazard: H302  
 Precaution: P264 P270 P301+P312 P330 P501

Cat No.	Grade	Assay	Info.	Per
ESC55384		N/A	11.4- 13.0	5g

## INDOL-3-YL-ACETIC ACID (IAA)

 $C_{10}H_9NO_2 = 175.18g/mol$ 

UN Class: N/A EC No.: 201-748-2  
 Cas No.: 87-51-4 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55386		96%		1g

## IODINE

 $I_2 = 253.81g/mol$ 

UN Class: 8(6.1) / UN3495 PG-III EC No.: 231-442-4 Warning  
 Cas No.: 7553-56-2 Index No.: 053-001-00-3  
 Hazard: H332 H312 H400  
 Precaution: P273 P280

Cat No.	Grade	Assay	Info.	Per
ESC55395		99.5%		100g

## IODINE 0.05M (0.1N) SOLUTION

 $I_2 = 253.81g/mol$ 

UN Class: 8(6.1) / UN3495 PG-III EC No.: 231-442-4  
 Cas No.: 7553-56-2 Index No.: 053-001-00-3  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55389		0.05M	Solution	500ml
ESC55388		0.05M	Solution	1L

## IODINE 1% SOLUTION IN KI

UN Class: N/A EC No.: N/A  
 Cas No.: N/A Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55392		1%		500ml
ESC55393		1%		1L



**1-IODOBUTANE (BUTYL IODIDE)** $\text{CH}_3(\text{CH}_2)_3\text{I} = 184.02\text{g/mol}$ 

33°C

**UN Class:** 3 /UN1993 PG-III**EC No.:** 208-824-4

Danger

**Cas No.:** 542-69-8**Index No.:** Not listed**Hazard:** H226 H331**Precaution:** P210 P405 P501

Cat No.	Grade	Assay	Info.	Per
ESC55398		99%		25ml

**IRON (II) SULPHIDE LUMP (FERROUS SULPHIDE)** $\text{FeS} = 87.91\text{g/mol}$ **UN Class:** N/A**EC No.:** 215-268-6

Warning

**Cas No.:** 1317-37-9**Index No.:** Not listed**Hazard:** H400**Precaution:** P273

Cat No.	Grade	Assay	Info.	Per
ESC55420		90%		500g

**IDOETHANE (ETHYL IODIDE)** $\text{C}_2\text{H}_5\text{I} = 155.97\text{g/mol}$ 

53°C

**UN Class:** 3 /UN1993 PG-III**EC No.:** 200-833-1

Danger

**Cas No.:** 75-03-6**Index No.:** Not listed**Hazard:** H302 H315 H317 H319 H334**Precaution:** P261 P280 P305+P351+P338 P342+P311

Cat No.	Grade	Assay	Info.	Per
ESC55400		99%		25ml

**IRON METAL - FILINGS** $\text{Fe} = 55.85\text{g/mol}$ **UN Class:** N/A**EC No.:** 231-096-4**Cas No.:** 7439-89-6**Index No.:** Not listed**Hazard:** Not considered hazardous**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55402		97%	Coarse (1.0mm)	500g

**IRON (II) CHLORIDE 4-WATER (FERROUS CHLORIDE)** $\text{FeCl}_2 \cdot 4\text{H}_2\text{O} = 198.81\text{g/mol}$ **UN Class:** 8 /UN3260 PG-III**EC No.:** 231-843-4

Danger

**Cas No.:** 13478-10-9**Index No.:** Not listed**Hazard:** H302 H315 H318**Precaution:** P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55409		99%		500g

**IRON (II) OXALATE** $\text{Fe}_2\text{C}_2\text{O}_4 \cdot 2\text{H}_2\text{O} = 179.89\text{g/mol}$ **UN Class:** N/A**EC No.:** N/A

Warning

**Cas No.:** 6047-25-2**Index No.:** 607-007-00-3**Hazard:** H302 H312**Precaution:** P280 P301+P312

Cat No.	Grade	Assay	Info.	Per
ESC55412		98%		100g

**IRON (II,III) OXIDE (MAGNETITE)** $\text{Fe}_3\text{O}_4 = 231.53\text{g/mol}$ **UN Class:** 3 /UN1294 PG-II**EC No.:** N/A**Cas No.:** N/A**Index No.:** 607-007-00-3**Hazard:** Not considered hazardous**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55436		N/A		100g

**IRON POWDER REDUCED BY HYDROGEN** $\text{Fe} = 55.85\text{g/mol}$ **UN Class:** 4.1 /UN3089 PG-III**EC No.:** 231-096-4

Danger

**Cas No.:** 7439-89-6**Index No.:** Not listed**Hazard:** H228**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55406		96%		500g

**IRON (II) SULPHATE 7-WATER (FERROUS SULPHATE)** $\text{FeSO}_4 \cdot 7\text{H}_2\text{O} = 278.01\text{g/mol}$ **UN Class:** N/A**EC No.:** 231-753-5

Warning

**Cas No.:** 7782-63-0**Index No.:** 026-003-01-4**Hazard:** H302 H319 H315**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55416		98%		500g





**IRON (III) CHLORIDE 6-WATER (FERRIC CHLORIDE)** $\text{FeCl}_3 \cdot 6\text{H}_2\text{O} = 270.3\text{g/mol}$ 

**UN Class:** 8 /UN3260 PG-III **EC No.:** 231-729-4  
**Cas No.:** 10025-77-1 **Index No.:** Not listed  
**Hazard:** H302 H314  
**Precaution:** P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55424		98%		500g

**IRON (III) CHLORIDE ANHYDROUS (FERRIC CHLORIDE)** $\text{FeCl}_3 = 162.2\text{g/mol}$ 

**UN Class:** 8 /UN1773 PG-III **EC No.:** 231-729-4 **Danger**  
**Cas No.:** 7705-08-0 **Index No.:** Not listed  
**Hazard:** H302 H315 H318 H411  
**Precaution:** P273 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55428		96%		500g

**IRON (III) NITRATE 9-WATER (FERRIC NITRATE)** $\text{Fe}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O} = 404\text{g/mol}$ 

**UN Class:** 5.1 /UN1466 PG-III **EC No.:** 233-899-5 **Warning**  
**Cas No.:** 7782-61-8 **Index No.:** Not listed  
**Hazard:** H272 H315 H319 H335  
**Precaution:** P220 P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55432		98%		500g

**IRON (III) OXIDE (FERRIC OXIDE)** $\text{Fe}_2\text{O}_3 = 159.69\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 215-168-2 **Warning**  
**Cas No.:** 1309-37-1 **Index No.:** Not listed  
**Hazard:** H315 H319 H335  
**Precaution:** P261 P305+P351+P338  
**Notes:** Red/Brown in colour

Cat No.	Grade	Assay	Info.	Per
ESC55438		95%		500g

**IRON (III) SULPHATE HYDRATED TECH (FERRIC SULPHATE)** $\text{Fe}_2(\text{SO}_4)_3 \cdot x\text{H}_2\text{O} = 399.88\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 233-072-9 **Warning**  
**Cas No.:** 15244-10-7 **Index No.:** Not listed  
**Hazard:** H302 H319 H335  
**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55440		95%		500g

**JANUS GREEN STAIN C.I.11050**

**UN Class:** N/A **EC No.:** 220-695-6  
**Cas No.:** 2869-83-2 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55442		N/A	Powder	1g
ESC55443		1%	Powder	100ml

**KAOLIN LIGHT (ALUMINUM SILICATE HYDROXIDE)** $\sim\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4 = 258.16\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 310-194-1  
**Cas No.:** 1332-58-7 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55444		N/A		1kg

**KEROSENE WHITE SEE PARAFFIN OIL****KINETIN** $\text{C}_{10}\text{H}_9\text{N}_5\text{O} = 215.22\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 208-382-2  
**Cas No.:** 525-79-1 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55445		99%		1kg

**DL-LACTIC ACID (2-HYDROXYPROPIONIC ACID)** $\text{CH}_3\text{CH}(\text{OH})\text{COOH} = 90.08\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 209-954-4 **Danger**  
**Cas No.:** 50-21-5 **Index No.:** Not listed  
**Hazard:** H315 H318  
**Precaution:** P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55459		88%		500ml


**LACTOSE** $\text{C}_{12}\text{H}_{22}\text{O}_{11} \cdot \text{H}_2\text{O} = 360.31\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 200-559-2  
**Cas No.:** 64044-51-5 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55460		98%		500g




**LATEX** $(C_5H_7NaO_2)_n$ **UN Class:** N/A**EC No.:** N/A**Cas No.:** 9003-04-7**Index No.:** Not listed**Hazard:** Not considered hazardous**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55462		N/A		500ml

**DI-LAUROYL PEROXIDE (DODECANOYL PEROXIDE)** $[CH_3(CH_2)_{10}CO]_2O_2 = 398.62g/mol$ **UN Class:** 5.2 / UN3106 PG-II**EC No.:** 203-326-3

Danger

**Cas No.:** 105-74-8**Index No.:** 617-003-00-3**Hazard:** H242**Precaution:** P220 P280 P410 P420

Cat No.	Grade	Assay	Info.	Per
ESC55463		98%		25g

**LEAD METAL** $Pb = 207.2g/mol$ **UN Class:** N/A**EC No.:** 231-100-4

Danger


**Cas No.:** 7439-92-1**Index No.:** Not listed**Hazard:** H302 H332 H360 H373 H410**Precaution:** P201 P273 P308+P313

Cat No.	Grade	Assay	Info.	Per
ESC55474		N/A	Shot 3mm dia.	500g

**LEAD (II) ACETATE 3-WATER (LEAD (II) ETHANOATE)** $Pb(CH_3COO)_2 \cdot 3H_2O = 379.33g/mol$ **UN Class:** 6.1 / UN1616 PG-III**EC No.:** 206-104-4

Danger



**Cas No.:** 6080-56-4**Index No.:** 082-005-00-8**Hazard:** H360Df H373 H410**Precaution:** P201 P273 P308+P313 P501

Cat No.	Grade	Assay	Info.	Per
ESC55476		98%		500g

**LEAD (II) BROMIDE** $PbBr_2 = 367.01g/mol$ **UN Class:** 6.1 / UN2291 PG-III**EC No.:** 233-084-4

Danger


**Cas No.:** 10031-22-8**Index No.:** 082-001-00-6**Hazard:** H360Df H332 H302 H373 H410**Precaution:** P201 P273 P308+P313 P501

Cat No.	Grade	Assay	Info.	Per
CHE291647		98%		100g
CHE291648		98%		250g

**LEAD (II,IV) OXIDE (RED LEAD)** $Pb_3O_4 = 685.6g/mol$ **UN Class:** 5.1 / UN1479 PG-II**EC No.:** 215-235-6

Danger


**Cas No.:** 1314-41-6**Index No.:** 082-001-00-6**Hazard:** H360Df H302 H332 H272 H373 H410**Precaution:** P201 P220 P273 P308+P313 P501

Cat No.	Grade	Assay	Info.	Per
ESC55488		97%		500g

**LEAD (IV) OXIDE (LEAD DIOXIDE)** $PbO_2 = 239.2g/mol$ **UN Class:** 5.1(6.1) / UN1872 PG-III**EC No.:** 215-174-5

Danger


**Cas No.:** 1309-60-0**Index No.:** 082-001-00-6**Hazard:** H360Df H302 H332 H272 H373 H410**Precaution:** P201 P220 P273 P308+P313 P501

Cat No.	Grade	Assay	Info.	Per
ESC55496		95%		250g

**LEAD (II) SULPHATE** $PbSO_4 = 303.26g/mol$ **UN Class:** 9 / UN3077 PG-III**EC No.:** 231-198-9

Danger


**Cas No.:** 7446-14-2**Index No.:** 082-001-00-6**Hazard:** H360Df H332 H302 H373 H410**Precaution:** P201 P273 P308+P313 P501

Cat No.	Grade	Assay	Info.	Price	Per
ESC55492		99%		15.95	100g


**LEAD (II) SULPHIDE** $PbS = 239.27g/mol$ **UN Class:** 9 / UN3077 PG-III**EC No.:** 215-246-6

Danger

**Cas No.:** 1314-87-0**Index No.:** 082-001-00-6**Hazard:** H360Df H332 H302 H373 H410**Precaution:** P201 P273 P308+P313 P501

Cat No.	Grade	Assay	Info.	Per
ESC55494		98%		100g


**LEISHMAN'S STAIN****UN Class:** N/A**EC No.:** 235-732-1**Cas No.:** 12627-53-1**Index No.:** Not listed**Hazard:** Not considered hazardous**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55499		N/A		5g




**DL-LEUCINE** $(\text{CH}_3)_2\text{CHCH}_2\text{CH}(\text{NH}_2)\text{CO}_2\text{H} = 131.17\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-729-4  
**Cas No.:** 328-39-2 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55501		99%		5g


**L-LEUCINE** $(\text{CH}_3)_2\text{CHCH}_2\text{CH}(\text{NH}_2)\text{CO}_2\text{H} = 131.17\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 200-522-0  
**Cas No.:** 61-90-5 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55502		99%		25g


**LIME WATER (LIMEWATER)** $\text{Ca}(\text{OH})_2 = 74.09\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 215-137-3  
**Cas No.:** 1305-62-0 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required  
**Notes:** For detecting Carbon dioxide

Cat No.	Grade	Assay	Info.	Per
ESC55504		N/A		500ml


**LIMONENE (DIPENTENE)** $\text{C}_{10}\text{H}_{16} = 136.24\text{g/mol}$ 

**UN Class:** 3 / UN2052 PG-III **EC No.:** 205-341-0 **Warning**  
**Cas No.:** 138-86-3 **Index No.:** 601-029-00-7  
**Hazard:** H226 H315 H317 H410  
**Precaution:** P273 P280 P501  
**Notes:** For detecting Carbon dioxide

Cat No.	Grade	Assay	Info.	Per
ESC55506		98%		250ml


**LIMONENE (R)-(+)-** $\text{C}_{10}\text{H}_{16} = 136.23\text{g/mol}$ 

**UN Class:** 3 / UN2052 PG-III **EC No.:** 227-813-5 **Warning**  
**Cas No.:** 5989-27-5 **Index No.:** 601-029-00-7  
**Hazard:** H226 H315 H317 H410  
**Precaution:** P210 P241 P303+P361+P353

Cat No.	Grade	Assay	Info.	Per
ESC55507		97%		25ml



**LIMONENE (S)-(-)-** $\text{C}_{10}\text{H}_{16} = 136.23\text{g/mol}$ 

**UN Class:** 3 / UN2052 PG-III **EC No.:** 227-815-6 **Warning**  
**Cas No.:** 5989-54-8 **Index No.:** 601-029-00-7  
**Hazard:** H226 H315 H317 H410  
**Precaution:** P210 P241 P303+P361+P353

Cat No.	Grade	Assay	Info.	Per
ESC55508		97%		25ml


**LITHIUM METAL IN LIQUID PARAFFIN** $\text{Li} = 6.94\text{g/mol}$ 

**UN Class:** 4.3 / UN1415 PG-I **EC No.:** 231-102-5 **Danger**  
**Cas No.:** 7439-93-2 **Index No.:** 003-001-00-4  
**Hazard:** H260 H314  
**Precaution:** P223 P231+P232 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55510		99%	SURCHARGE	10g
ESC55511		99%	SURCHARGE	25g


**LITHIUM CARBONATE** $\text{Li}_2\text{CO}_3 = 73.89\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 209-062-5 **Warning**  
**Cas No.:** 554-13-2 **Index No.:** Not listed  
**Hazard:** H302 H319 H332  
**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55513		99%		500g


**LITHIUM CHLORIDE ANHYDROUS** $\text{LiCl} = 42.39\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-212-3 **Warning**  
**Cas No.:** 7447-41-8 **Index No.:** Not listed  
**Hazard:** H302 H315 H319 H335  
**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55515		98.5%		500g

**LITHIUM HYDROXIDE** $\text{LiOH} \cdot \text{H}_2\text{O} = 41.96\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 215-183-4 **Danger**  
**Cas No.:** 1310-66-3 **Index No.:** Not listed  
**Hazard:** H302 H314  
**Precaution:** P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55517		98%		500g



## LITHIUM NITRATE ANHYDROUS

LiNO<sub>3</sub> = 68.95g/molUN Class: 5.1 / UN2722 PG-III  
Cas No.: 7790-69-4EC No.: 232-218-9  
Index No.: Not listed

Warning

Hazard: H272  
Precaution: P220

Cat No.	Grade	Assay	Info.	Per
ESC55519		98%		100g

## L-LYSINE MONOHYDROCHLORIDE

H<sub>2</sub>N(CH<sub>2</sub>)<sub>4</sub>CH(NH<sub>2</sub>)CO<sub>2</sub>H • HCl = 182.65g/mol

UN Class: N/A

Cas No.: 657-27-2

EC No.: 211-519-9

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55522		99%		100g

## LITMUS

UN Class: N/A

Cas No.: 1393-92-6

EC No.: 215-739-6

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Notes: pH 5.0-8.0

Cat No.	Grade	Assay	Info.	Per
ESC55520		N/A	Powder	25g

## LYCOPodium POWDER

N/A



UN Class: 4.1 / UN1325 PG-II

Cas No.: 8023-70-9

EC No.: 282-002-3

Index No.: Not listed

Danger

Hazard: H228

Precaution: P210

Cat No.	Grade	Assay	Info.	Per
ESC55530		97%		50g

## LUGOL'S IODINE SOLUTION

UN Class: N/A

Cas No.: N/A

EC No.: N/A

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55524		N/A		1L

## MAGNESIUM METAL - POWDER

Mg = 24.31g/mol



UN Class: 4.3(4.2) / UN1418 PG-II

Cas No.: 7439-95-4

EC No.: 231-104-6

Index No.: 012-001-00-3

Danger

Hazard: H260 H250

Precaution: P222 P223 P231+P232

Cat No.	Grade	Assay	Info.	Per
ESC55534		99.5%	SURCHARGE	100g
ESC55536		99.5%	SURCHARGE	500g

## LUMINOL (3-AMINOPHTHALHYDRAZIDE)

Nh<sub>2</sub> . C<sub>6</sub>H<sub>3</sub> . CO . NH . NH . CO = 177.16g/mol

UN Class: N/A

Cas No.: 521-31-3

EC No.: 208-309-4

Index No.: Not listed

Hazard: H315 H319 H335

Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55527		97%		1g
ESC55528		98%		1g

## MAGNESIUM METAL - TURNINGS

Mg = 24.31g/mol



UN Class: 4.1 / UN1869 PG-III

Cas No.: 7439-95-4

EC No.: 231-104-6

Index No.: 012-002-00-9

Danger

Hazard: H228 H261 H252

Precaution: P210 P231+P232 P235+P410


Cat No.	Grade	Assay	Info.	Per
ESC55537		99.5%		100g
ESC55538		99.5%		250g







**MAGNESIUM CHLORIDE 6-WATER** $\text{MgCl}_2 \cdot 6\text{H}_2\text{O} = 203.31\text{g/mol}$ 

UN Class: N/A EC No.: 232-094-6  
 Cas No.: 7791-18-6 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55544		97.5%		500g


**MAGNESIUM CARBONATE BASIC - HEAVY** $\text{MgCO}_3 = 84.31\text{g/mol}$ 

UN Class: N/A EC No.: 235-192-7  
 Cas No.: 39409-82-0 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55540		MgO = 30%	Heavy	250g
ESC55541		MgO = 30%	Heavy	500g


**MAGNESIUM CARBONATE BASIC - LIGHT** $\text{MgCO}_3 = 84.31\text{g/mol}$ 

UN Class: N/A EC No.: 235-192-7  
 Cas No.: 39409-82-0 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55542		MgO = 30%	Light	500g


**MAGNESIUM HYDROXIDE** $\text{Mg}(\text{OH})_2 = 58.32\text{g/mol}$ 

UN Class: N/A EC No.: 215-170-3 Warning  
 Cas No.: 1309-42-8 Index No.: Not listed  
 Hazard: H315 H319 H335  
 Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55547		95%		500g


**MAGNESIUM NITRATE 6-WATER** $\text{Mg}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O} = 256.41\text{g/mol}$ 

UN Class: 5.1 /UN1474 PG-III EC No.: 233-826-7 Warning  
 Cas No.: 13446-18-9 Index No.: Not listed  
 Hazard: H319  
 Precaution: P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55552		98%		500g


**MAGNESIUM OXIDE - HEAVY** $\text{MgO} = 40.3\text{g/mol}$ 

UN Class: N/A EC No.: 215-171-9  
 Cas No.: 1309-48-4 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55556		98%		500g


**MAGNESIUM OXIDE - LIGHT** $\text{MgO} = 40.3\text{g/mol}$ 

UN Class: N/A EC No.: 215-171-9  
 Cas No.: 1309-48-4 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55560		98%		500g


**MAGNESIUM SULPHATE - DRIED (DRIED)** $\text{MgSO}_4 \cdot x\text{H}_2\text{O} = 120.38\text{g/mol}$ 

UN Class: N/A EC No.: 231-298-2  
 Cas No.: 22189-08-8 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55564		97%		500g


**MAGNESIUM SULPHATE 7-WATER** $\text{MgSO}_4 \cdot 7\text{H}_2\text{O} = 246.47\text{g/mol}$ 

UN Class: N/A EC No.: 231-298-2 Warning  
 Cas No.: 10034-99-8 Index No.: Not listed  
 Hazard: H302  
 Precaution: P264 P270 P301+P312 P330

Cat No.	Grade	Assay	Info.	Per
ESC55566		99%		1kg

**MAGNESIUM SULPHATE ANHYDROUS** $\text{MgSO}_4 = 120.37\text{g/mol}$ 

UN Class: N/A EC No.: 231-298-2  
 Cas No.: 7487-88-9 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55568		98%		500g



**MALACHITE GREEN C.I.42000 (BASIC GREEN 4)**

N/A



UN Class: 6.1 /UN2811 PG-III  
Cas No.: 2437-29-8

EC No.: 219-441-7

Danger

Index No.: 602-096-00-5

Hazard: H361d H302 H318 H410

Precaution: P272 P280 P305+P351+P338 P501

Cat No.	Grade	Assay	Info.	Per
ESC55570		N/A		5g

**MANGANESE (II) CARBONATE** $\text{MnCO}_3 = 114.95\text{g/mol}$ 

UN Class: N/A

Cas No.: 598-62-9

EC No.: 209-942-9

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55583		93%		500g

**MALEIC ACID (CIS-BUTENEDIOIC ACID OR TOXILIC ACID)** $\text{CH}(\text{COOH})\text{:CH}(\text{COOH}) = 116.07\text{g/mol}$ 

UN Class: N/A

Cas No.: 110-16-7

EC No.: 203-742-5

Warning

Index No.: 607-095-00-3

Hazard: H302 H319 H335 H315 H317

Precaution: P261 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55572		99%		500g

**MANGANESE (II) CHLORIDE 4-WATER** $\text{MnCl}_2 \cdot 4\text{H}_2\text{O} = 197.91\text{g/mol}$ 

UN Class: N/A

Cas No.: 13446-34-9

EC No.: 231-869-6

Index No.: Not listed

Hazard: H302

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55586		98%		500g

**MALONIC ACID (PROPANEDIOIC ACID)** $\text{CH}_2(\text{COOH})_2 = 104.06\text{g/mol}$ 

UN Class: N/A

Cas No.: 141-82-2

EC No.: 205-503-0

Warning

Index No.: Not listed

Hazard: H302 H318

Precaution: P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55574		98%		500g

**MANGANESE (II) SULPHATE 1-WATER** $\text{MnSO}_4 \cdot \text{H}_2\text{O} = 169.02\text{g/mol}$ 

UN Class: 9 /UN3077 PG-III

Cas No.: 10034-96-5

EC No.: 232-089-9

Index No.: 025-003-00-4

Hazard: H373 H411

Precaution: P273

Cat No.	Grade	Assay	Info.	Per
ESC55589		98%		500g

**MALTOSE** $\text{C}_{12}\text{H}_{22}\text{O}_{11} \cdot \text{H}_2\text{O} = 360.31\text{g/mol}$ 

UN Class: N/A

Cas No.: 6363-53-7

EC No.: 200-716-5

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55576		97%		100g

**MANGANESE (IV) OXIDE FOR O2 PREPARATION** $\text{MnO}_2 = 86.94\text{g/mol}$ 

UN Class: 5.1 /UN1479 PG-II

Cas No.: 1313-13-9

EC No.: 215-202-6

Index No.: 025-001-00-3

Hazard: H332 H302

Precaution: No additional precautions required

Notes: For the preparation of Oxygen

Cat No.	Grade	Assay	Info.	Per
ESC55592		97%	Powder	250g

**MANGANESE FLAKE ELECTROLYTIC** $\text{Mn} = 54.94\text{g/mol}$ 

UN Class: N/A

Cas No.: 7439-96-5

EC No.: 231-105-1

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55578		99%		100g

**MANGANESE (IV) OXIDE** $\text{MnO}_2 = 86.94\text{g/mol}$ 

UN Class: N/A

Cas No.: 1313-13-9

EC No.: 215-202-6

Index No.: 025-001-00-3

Hazard: H332 H302


Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55595		90%	Tech. Powder	500g




**MANNITOL** $C_6H_{14}O_6 = 182.17\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 200-711-8  
**Cas No.:** 69-65-8 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55597		98%		100g




**D (+) MANNOSE** $C_6H_{12}O_6 = 180.16\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 215-202-6  
**Cas No.:** 3458-28-4 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55232		99%		5g


**MARBLE CHIPS (CALCIUM CARBONATE ORE)** $CaCO_3 = 100.09\text{g/mol}$ 

**UN Class:** N/A **EC No.:** N/A **Warning**  
**Cas No.:** 13397-26-7 **Index No.:** Not listed  
**Hazard:** H315 H318 H335  
**Precaution:** P261 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55599		97%	2-4mm	3kg
ESC555600		97%	6-9mm	3kg
ESC555601		97%	9-12mm	3kg


**MENTHOL** $C_{10}H_{20}O = 156.27\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 218-690-9 **Danger**  
**Cas No.:** 2216-51-5 **Index No.:** Not listed  
**Hazard:** H315 H318 H335  
**Precaution:** P261 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC555602		99%		100g


**MERCURY (II) CHLORIDE (MERCURIC CHLORIDE)** $HgCl_2 = 271.5\text{g/mol}$ 

**UN Class:** 6.1 /UN1624 PG-II **EC No.:** 231-299-8 **Danger**  
**Cas No.:** 7487-94-7 **Index No.:** 080-010-00-X  
**Hazard:** H341 H361f H300 H372 H314 H410  
**Precaution:** P264 P273 P280 P305+P351+P338 P310 P501

Cat No.	Grade	Assay	Info.	Per
ESC55604		99%		100g



**MERCURY (II) OXIDE RED (MERCURIC OXIDE RED)** $HgO = 216.59\text{g/mol}$ 

**UN Class:** 6.1 /UN1641 PG-II **EC No.:** 244-654-7 **Danger**  
**Cas No.:** 21908-53-2 **Index No.:** 080-002-00-6  
**Hazard:** H330 H310 H300 H373 H410  
**Precaution:** P260 P264 P273 P280 P284 P302+P350

Cat No.	Grade	Assay	Info.	Per
ESC55607		N/A		100g


**METHANAL SEE FORMALDEHYDE****METHANOIC ACID SEE FORMIC ACID****METHANOL (METHYL ALCOHOL)** $CH_3OH = 32.04\text{g/mol}$ 

**UN Class:** 3(6.1) /UN1230 PG-II **EC No.:** 200-659-6 **Danger**  
**Cas No.:** 67-56-1 **Index No.:** 603-001-00-X  
**Hazard:** H225 H331 H311 H301 H370  
**Precaution:** P210 P260 P280 P301+P310 P307+P317

Cat No.	Grade	Assay	Info.	Per
ESC55609		99%	GR	1L
ESC55610		99%	HPLC	1L


**METHYL ACETATE** $CH_3COOCH_3 = 74.08\text{g/mol}$ 

**UN Class:** 3 /UN1231 PG-II **EC No.:** 201-185-2 **Danger**  
**Cas No.:** 79-20-9 **Index No.:** 607-021-00-X  
**Hazard:** H225 H319 H336 EUH066  
**Precaution:** P210 P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55612		98.5%		1L


**METHYLATED SPIRIT (INDUSTRIAL DENATURED ALCOHOL)** $(C_2H_5OH \& CH_3OH)$ 

**UN Class:** 3 /UN1170 PG-II **EC No.:** N/A **Danger**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H225 H371  
**Precaution:** P210 P260

Cat No.	Grade	Assay	Info.	Per
ESC55614		>98%	2-4mm	5L

**METHYLATED SPIRIT (MINERALISED DENATURED ALCOHOL)** $(C_2H_5OH \& CH_3OH)$ 

**UN Class:** 3 /UN1170 PG-II **EC No.:** N/A **Danger**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H225 H371  
**Precaution:** P210 P260

Cat No.	Grade	Assay	Info.	Per
ESC55615		N/A	Mineralised	1L



## METHYL BENZOATE

 $\text{C}_6\text{H}_5\text{COOCH}_3 = 136.15\text{g/mol}$ 

UN Class: N/A

EC No.: 202-259-7

Warning

Cas No.: 93-58-3

Index No.: Not listed

Hazard: H302 H319

Precaution: P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55617		99%	9-12mm	500ml

## METHYLBENZENE

SEE TOLUENE

## METHYL BLUE C.I.42780

N/A



UN Class: N/A

EC No.: 249-352-9

Warning

Cas No.: 28983-56-4

Index No.: Not listed

Hazard: H302 H315 H319 H335

Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55619		N/A		25g

## 2-METHYLBUTANE

SEE ISO-PENTANE

## 3-METHYL-1-BUTANOL

SEE ISO-AMYL ALCOHOL

## 3-METHYLBUTYL ACETATE

SEE ISO-AMYL ACETATE

## METHYLENE BLUE C.I.52015

N/A



UN Class: N/A

EC No.: 200-515-2

Warning

Cas No.: 7220-79-3

Index No.: Not listed

Hazard: H302 H315 H319 H335

Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55631		N/A		50g
ESC55632		N/A		100g

## METHYLENE BLUE 1% AQUEOUS SOLUTION

UN Class: N/A

EC No.: N/A

Cas No.: N/A

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55634		1%		125ml

## METHYLENE CHLORIDE

SEE DICHLOROMETHANE

## METHYL ETHYL KETONE

SEE 2-BUTANONE

## METHYL METHACRYLATE MONOMER

 $\text{CH}_2=\text{C}(\text{CH}_3)\text{COOCH}_3 = 100.12\text{g/mol}$ 

UN Class: 3 /UN1247 PG-II

EC No.: 201-297-1

Danger

Cas No.: 80-62-6

Index No.: 607-035-00-6

Hazard: H225 H335 H315 H317

Precaution: P210 P261 P280

Cat No.	Grade	Assay	Info.	Per
ESC55636		99.5%		500ml

## METHYL 4-HYDROXYBENZOATE

 $\text{HOC}_6\text{H}_4\text{CO}_2\text{CH}_3 = 152.15\text{g/mol}$ 

UN Class: N/A

EC No.: 202-785-7

Warning

Cas No.: 99-76-3

Index No.: Not listed

Hazard: H315 H319 H335

Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55638		98%		50g

## METHYL ORANGE C.I.13025

N/A



UN Class: 6.1 /UN3143 PG-III

EC No.: 208-925-3

Danger

Cas No.: 547-58-0

Index No.: Not listed

Hazard: H301

Precaution: P301+P310

Cat No.	Grade	Assay	Info.	Per
ESC55621		N/A	2-4mm	50g
ESC55622		N/A	9-12mm	100g

## METHYL ORANGE 0.04% SOLUTION

UN Class: 3 /UN1993 PG-III

EC No.: N/A

Cas No.: N/A

Index No.: Not listed

Hazard: H225

Precaution: P210

Cat No.	Grade	Assay	Info.	Per
ESC55624		0.04%	pH 2.9-4.6	500ml

## METHYL ORANGE - XYLENE CYANOL (SCREENED METHYL ORANGE)

 $\text{HOC}_6\text{H}_4\text{CO}_2\text{CH}_3 = 152.15\text{g/mol}$ 

UN Class: 3 /UN1993 PG-III

EC No.: N/A

Cas No.: N/A

Index No.: Not listed

Hazard: H301 H335 H315 H319

Precaution: P261 P280 P301+P310 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55627		N/A	pH 2.9-4.6	5g






## METHYL ORANGE - XYLENE CYANOL SOLUTION

UN Class: 3 /UN1993 PG-III  
 Cas No.: N/A  
 Hazard: H225 H371  
 Precaution: P210 P260

EC No.: N/A  
 Index No.: Not listed

Cat No.	Grade	Assay	Info.	Per
ESC55628		0.36%	pH 2.9-4.6	500ml


## 2-METHYLPROPAN-1-OL (ISO-BUTYL ALCOHOL)

$(\text{CH}_3)_2\text{CHCH}_2\text{OH} = 74.12\text{g/mol}$



UN Class: 3 /UN1212 PG-III  
 Cas No.: 78-83-1  
 Hazard: H226 H335 H315 H318 H336  
 Precaution: P261 P280 P305+P351+P338

EC No.: 201-148-0  
 Index No.: 603-108-00-1  
 Danger

Cat No.	Grade	Assay	Info.	Per
ESC54786		98%		1L


## 2-METHYLPROPAN-2-OL (TERT-BUTYL ALCOHOL)

$(\text{CH}_3)_3\text{COH} = 74.12\text{g/mol}$



UN Class: 3 /UN1120 PG-II  
 Cas No.: 75-65-0  
 Hazard: H225 H332 H319 H335  
 Precaution: P210


EC No.: 200-889-7  
 Index No.: 603-005-00-1  
 Danger

Cat No.	Grade	Assay	Info.	Per
ESC54789		98.5%		1L

## METHYL RED C.I.13020

UN Class: N/A  
 Cas No.: 493-52-7  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

EC No.: 207-776-1  
 Index No.: Not listed

Cat No.	Grade	Assay	Info.	Per
ESC55626		N/A	pH 4.2-6.3	100g


## METHYL SALICYLATE (METHYL 2-HYDROXYBENZOATE OR OIL OF WINTERGREEN)

$2\text{-(HO)C}_6\text{H}_4\text{CO}_2\text{CH}_3 = 152.12\text{g/mol}$



UN Class: N/A  
 Cas No.: 119-36-8  
 Hazard: H302 H315 H319 H335  
 Precaution: P261 P305+P351+P338


EC No.: 204-317-7  
 Index No.: Not listed  
 Warning

Cat No.	Grade	Assay	Info.	Per
ESC55629		99%		500ml

## MINERAL WOOL

UN Class: N/A  
 Cas No.: N/A  
 Hazard: H351  
 Precaution: No additional precautions required

EC No.: N/A  
 Index No.: 650-016-00-2

Cat No.	Grade	Assay	Info.	Per
ESC55639		N/A		500g

## MINERAL WOOL - SUPERWOOL 607

UN Class: N/A  
 Cas No.: 436083-99-7  
 Hazard: H351  
 Precaution: No additional precautions required

EC No.: N/A  
 Index No.: Not listed


Cat No.	Grade	Assay	Info.	Per
ESC55640		N/A		500g

## MUREXIDE (AMMONIUM PURPURATE)

$\text{C}_8\text{H}_5\text{N}_5\text{O}_6 \cdot \text{H}_3\text{N} = 284.19\text{g/mol}$

UN Class: N/A  
 Cas No.: 3051-09-0  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

EC No.: 221-266-6  
 Index No.: Not listed

Cat No.	Grade	Assay	Info.	Per
ESC55641		97%		25g


## NAPHTHALENE CRYSTALS

$\text{C}_{10}\text{H}_8 = 128.17\text{g/mol}$



UN Class: 4.1 /UN1334 PG-III  
 Cas No.: 91-20-3  
 Hazard: H351 H302 H410  
 Precaution: P273 P281 P501

EC No.: 202-049-5  
 Index No.: 601-052-00-2  
 Warning

Cat No.	Grade	Assay	Info.	Per
ESC55643		99%		500g


## 1-NAPHTHOL (NAPHTHALEN-1-OL)

$\text{C}_{10}\text{H}_7\text{OH} = 144.17\text{g/mol}$



UN Class: 6.1 /UN2811 PG-III  
 Cas No.: 90-15-3  
 Hazard: H312 H302 H335 H315 H318  
 Precaution: P261 P280 P305+P351+P338

EC No.: 201-969-4  
 Index No.: 604-029-00-5  
 Danger

Cat No.	Grade	Assay	Info.	Price	Per
ESC54761		98%		15.95	100g



**2-NAPHTHOL (NAPHTHALEN-2-OL)** $C_{10}H_7OH = 144.17g/mol$ 

**UN Class:** 9 /UN3077 PG-III **EC No.:** 205-182-7 **Warning**  
**Cas No.:** 135-19-3 **Index No.:** 604-007-00-5  
**Hazard:** H332 H302 H400  
**Precaution:** P273 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC54792		98%		100g

**NICKEL (II) NITRATE 6-WATER**
 $Ni(NO_3)_2 \cdot 6H_2O$   
 $= 290.79g/mol$ 


**UN Class:** 5.1 /UN2725 PG-III **EC No.:** 236-068-5 **Danger**  
**Cas No.:** 13478-00-7 **Index No.:** Not listed  
**Hazard:** H350i H341 H360 H272 H302 H315 H317 H318 H332 H334 H372 H410  
**Precaution:** P201 P220 P261 P273 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55676		99.5%		250g

**NEUTRAL RED C.I.50040** $C_{15}H_{12}N_4 = 288.78g/mol$ 

**UN Class:** N/A **EC No.:** 209-035-8  
**Cas No.:** 553-24-2 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55659		N/A	pH 6.8-8.0	5g

**NICKEL (II) OXIDE BLACK TECHNICAL** $NiO = 74.69g/mol$ 

**UN Class:** N/A **EC No.:** 215-215-7 **Danger**  
**Cas No.:** 1313-99-1 **Index No.:** 028-003-00-2  
**Hazard:** H350i H372 H317 H413  
**Precaution:** P201 P280 P308+P313

Cat No.	Grade	Assay	Info.	Per
ESC55668		N/A		100g

**NICKEL METAL - FOIL** $Ni = 58.71g/mol$ 

**UN Class:** N/A **EC No.:** 231-111-4 **Danger**  
**Cas No.:** 7440-02-0 **Index No.:** 028-002-00-7  
**Hazard:** H351 H372 H317  
**Precaution:** P280 P314

Cat No.	Grade	Assay	Info.	Per
ESC55661		>99%	Foil 0.15mm	100g

**NICKEL (II) SULPHATE HYDRATED** $NiSO_4 \cdot 6 \cdot 7H_2O$ 

**UN Class:** 9 /UN3077 PG-III **EC No.:** 232-104-9 **Danger**  
**Cas No.:** 15244-37-8 **Index No.:** 028-009-00-5  
**Hazard:** H350i H360 H372 H317 H302 H315 H332 H334 H341 H410  
**Precaution:** P201 P261 P273 P280 P308+P313 P501

Cat No.	Grade	Assay	Info.	Per
ESC55672		98%		250g

**NICKEL (II) CARBONATE BASIC** $\sim NiCO_3 \cdot 2Ni(OH)_2 \cdot 4H_2O = 342.1g/mol$ 

**UN Class:** 9 /UN3077 PG-III **EC No.:** 235-715-9 **Danger**  
**Cas No.:** 12607-70-4 **Index No.:** 028-010-00-0  
**Hazard:** H302 H315 H317 H332 H334 H341 H350i H360 H372 H410  
**Precaution:** P201 P261 P273 P280 P308+P313 P501

Cat No.	Grade	Assay	Info.	Per
ESC55663		Ni = 46%		100g

**NIGROSIN C.I.50420 (ACID BLACK 2)**

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** 8005-03-6 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55682		N/A		5g

**NICKEL (II) CHLORIDE 6-WATER (NICKEL DICHLORIDE)** $NiCl_2 \cdot 6H_2O = 237.69g/mol$ 

**UN Class:** 6.1 /UN3288 PG-III **EC No.:** 231-743-0 **Danger**  
**Cas No.:** 7791-20-0 **Index No.:** 028-011-00-6  
**Hazard:** H350i H341 H360FD H331 H301 H372 H315 H334 H317 H410  
**Precaution:** P201 P261 P273 P280 P301+P310 P311

Cat No.	Grade	Assay	Info.	Price	Per
ESC55665		97%		15.95	500g

**NINHYDRIN (INDAN-1,2,3-TRIONE)** $C_8H_4COC(OH)_2CO = 178.14g/mol$ 

**UN Class:** N/A **EC No.:** 207-618-1 **Warning**  
**Cas No.:** 485-47-2 **Index No.:** Not listed  
**Hazard:** H302 H315 H319 H335  
**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55684		98%		25g



## NINHYDRIN SPRAY

N/A



12°C

**UN Class:** 3 /UN1219 PG-II **EC No.:** N/A **Danger**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H225 H319 H336  
**Precaution:** P210 P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55686		N/A		100ml

## NITROBENZENE

 $C_6H_5NO_2 = 123.11g/mol$ 

**UN Class:** 6.1 /UN1662 PG-II **EC No.:** 202-716-0 **Danger**  
**Cas No.:** 98-95-3 **Index No.:** 609-003-00-7  
**Hazard:** H301 H311 H331 H351 H361f H372 H411  
**Precaution:** P273 P281 P314

Cat No.	Grade	Assay	Info.	Per
ESC55700		99%		100ml

## NITRIC ACID 69%

 $HNO_3 = 63.01g/mol$ 

**UN Class:** 8(5.1) /UN2031 PG-II **EC No.:** 231-714-2 **Danger**  
**Cas No.:** 7697-37-2 **Index No.:** 007-004-00-1  
**Hazard:** H272 H314  
**Precaution:** P220 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55692		65%		2.5L
ESC55696		69-70%		2.5L

## NYLON 6/6 PELLETS (POLY(HEXAMETHYLENE ADIPAMIDE))

 $(C_{12}H_{22}N_2O_2)_n = 262.35g/mol$ 

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** 32131-17-2 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55702		N/A		100g

## NITRIC ACID 1.0M SOLUTION

 $HNO_3 = 63.01g/mol$ 

**UN Class:** 8 /UN2031 PG-II **EC No.:** 231-714-2 **Danger**  
**Cas No.:** 7697-37-2 **Index No.:** 007-004-00-1  
**Hazard:** H314  
**Precaution:** P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55688		1.0M		1L

## N-OCTANE

 $CH_3(CH_2)_6CH_3 = 114.23g/mol$ 

13°C

**UN Class:** 3 /UN1262 PG-II **EC No.:** 203-892-1 **Danger**  
**Cas No.:** 111-65-9 **Index No.:** 601-009-00-8  
**Hazard:** H225 H304 H315 H336 H410  
**Precaution:** P210 P261 P273 P301+P331 P501

Cat No.	Grade	Assay	Info.	Per
ESC55704		99%		100ml

## NITRIC ACID 2.0M SOLUTION

 $HNO_3 = 63.01g/mol$ 

**UN Class:** 8 /UN2031 PG-II **EC No.:** 231-714-2 **Danger**  
**Cas No.:** 7697-37-2 **Index No.:** 007-004-00-1  
**Hazard:** H314  
**Precaution:** P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55690		2.0M		1L

## OCTAN-1-OL (OCTYL ALCOHOL)

 $CH_3(CH_2)_7OH = 130.23g/mol$ 

**UN Class:** N/A **EC No.:** 203-917-6 **Warning**  
**Cas No.:** 111-87-5 **Index No.:** Not listed  
**Hazard:** H315 H319  
**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55712		94-98%		1L



<b>OCTADECANOIC ACID</b>	<b>SEE STEARIC ACID</b>
<b>OCTADEC-9-ENOIC ACID</b>	<b>SEE OLEIC ACID</b>
<b>ISO-OCTANE</b>	<b>SEE 2,2,4-TRIMETHYLPENTANE</b>

**OCT-1-ENE**
 $\text{CH}_3(\text{CH}_2)_7\text{CH}=\text{CH}_2 = 112.21\text{g/mol}$ 


21°C

**UN Class:** 3 / UN3295 PG-II **EC No.:** 203-893-7 **Danger**  
**Cas No.:** 111-66-0 **Index No.:** Not listed  
**Hazard:** H225 H304 H315 H319 H411  
**Precaution:** P210 P273 P301+P310 P305+P351+P338 P331

Cat No.	Grade	Assay	Info.	Per
ESC55714		97%		100ml

**OIL - CASTOR**

**UN Class:** N/A **EC No.:** 232-293-8 **Danger**  
**Cas No.:** 8001-79-4 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55716		98%		500ml

**OIL - CLOVE**

N/A



**UN Class:** N/A **EC No.:** N/A **Warning**  
**Cas No.:** 8000-34-8 **Index No.:** Not listed  
**Hazard:** H315 H319 H335  
**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55717		95%		100ml

**OIL - CRUDE (SUBSTITUTE) (C.L.E.A.P.S.E FORMULATION)**

N/A



**UN Class:** 3 / UN1286 PG-II **EC No.:** N/A **Danger**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H350 H304 H319 H225  
**Precaution:** P281 P301+P310 P331 P305+P351+P338 P210

Cat No.	Grade	Assay	Info.	Per
ESC55720		N/A		500ml

**OIL - LINSEED**

N/A



**UN Class:** N/A **EC No.:** 232-278-6 **Warning**  
**Cas No.:** 8001-26-1 **Index No.:** Not listed  
**Hazard:** H302 H312 H315 H317 H319 H332 H335  
**Precaution:** P261 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55721		95%		500ml

**OIL - OLIVE**

**UN Class:** N/A **EC No.:** 232-277-0  
**Cas No.:** 8001-25-0 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55723		95%		500ml

**OIL - TURPENTINE**

N/A



**UN Class:** 3 / UN1299 PG-III **EC No.:** 232-350-7 **Danger**  
**Cas No.:** 8006-64-2 **Index No.:** 650-002-00-6  
**Hazard:** H226 H332 H312 H302 H304 H319 H315 H317 H411  
**Precaution:** P273 P280 P301+P310 P305+P351+P338 P331

Cat No.	Grade	Assay	Info.	Per
ESC55724		91%		500ml

**OLEIC ACID (9-OCTADECENOIC ACID)**
 $\text{CH}_3(\text{CH}_2)_7\text{CH}=\text{CH}(\text{CH}_2)_7\text{COOH} = 282.46\text{g/mol}$ 


**UN Class:** N/A **EC No.:** 204-007-1 **Warning**  
**Cas No.:** 112-80-1 **Index No.:** Not listed  
**Hazard:** H315 H319  
**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55725		0.8%		1L

**O.N.P.G (2-NITROPHENYL-BETA-D-GALACTOPYRANOSIDE)**
 $\text{C}_{12}\text{H}_{15}\text{NO}_8 = 301.25\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 206-716-1  
**Cas No.:** 369-07-3 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55730		98%		1g

**ORANGE G (ACID ORANGE 10)**

N/A = 452.37g/mol

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** 1936-15-8 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55731		N/A		10g






## ORCEIN SYNTHETIC (NATURAL RED 28)

N/A

UN Class: N/A EC No.: 215-750-6 Warning  
 Cas No.: 1400-62-0 Index No.: Not listed  
 Hazard: H302  
 Precaution: No additional precautions required


Cat No.	Grade	Assay	Info.	Per
ESC55732		N/A		5g

## ORCEIN ACETIC (LA COUR)

N/A



UN Class: 8 / UN2790 PG-III EC No.: N/A Danger  
 Cas No.: N/A Index No.: Not listed  
 Hazard: H226 H314  
 Precaution: P280 P305+P351+P338 P310


Cat No.	Grade	Assay	Info.	Per
ESC55733		N/A	0.6% Solution	100ml

## ORCEIN PROPIONIC

N/A





UN Class: N/A EC No.: N/A Danger  
 Cas No.: N/A Index No.: Not listed  
 Hazard: H314  
 Precaution: P260 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55734		N/A	0.6% Solution	100ml

## ORTHOPHOSPHORIC ACID (PHOSPHORIC ACID)

 $\text{H}_3\text{PO}_4 = 98\text{g/mol}$ 



UN Class: 8 / UN1805 PG-III EC No.: 231-633-2 Danger  
 Cas No.: 7664-38-2 Index No.: 015-011-00-6  
 Hazard: H314  
 Precaution: P260 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55735		85%		1L
ESC55736		85%		2.5L

## OXALIC ACID 2-WATER (ETHANEDIOIC ACID)

 $(\text{COOH})_2 \cdot 2\text{H}_2\text{O} = 126.07\text{g/mol}$ 


UN Class: 8 / UN3261 PG-III EC No.: 205-634-3 Warning  
 Cas No.: 6153-56-6 Index No.: 607-006-00-8  
 Hazard: H312 H302  
 Precaution: P280

Cat No.	Grade	Assay	Info.	Per
ESC55727		99.5%		500g
ESC55728		99.5%	PURIFIED	500g

## PALMITIC ACID (HEXADECANOIC ACID)

 $\text{CH}_3(\text{CH}_2)_{14}\text{COOH} = 256.42\text{g/mol}$ 

UN Class: N/A EC No.: 200-312-9 Warning  
 Cas No.: 57-10-3 Index No.: Not listed  
 Hazard: H319  
 Precaution: P305+P351+P338



Cat No.	Grade	Assay	Info.	Per
ESC55737		95%		100g

## PANCREATIN FROM PIG PANCREAS

N/A



UN Class: N/A EC No.: 232-468-9 Danger  
 Cas No.: 8049-47-6 Index No.: 647-014-00-9  
 Hazard: H319 H335 H315 H334  
 Precaution: P261 P305+P351+P338 P342+P311


Cat No.	Grade	Assay	Info.	Per
ESC55738		97%		25g
ESC55739		97%		100g

## PARAFFIN LIQUID LIGHT

N/A



UN Class: N/A EC No.: 232-384-2 Warning  
 Cas No.: 8012-95-1 Index No.: Not listed  
 Hazard: H319  
 Precaution: P305+P351+P338


Cat No.	Grade	Assay	Info.	Per
ESC55740		98%		1L

## PARAFFIN OIL (KEROSENE OIL)

N/A



UN Class: 3 / UN1223 PG-III EC No.: 232-366-4 Danger  
 Cas No.: 8008-20-6 Index No.: 649-404-00-4  
 Hazard: H304  
 Precaution: P301+P310

Cat No.	Grade	Assay	Info.	Per
ESC55742		97%		500ml



**PARAFFIN WAX 56-58°C**

UN Class: N/A

EC No.: 232-315-6

Cas No.: 8002-74-2

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55744		97%		500g

**ISO-PENTANE (2-METHYLBUTANE)** $\text{CH}_3\text{CH}_2\text{CH}(\text{CH}_3)_2 = 72.15\text{g/mol}$ 

-51°C

UN Class: 3 /UN1265 PG-

EC No.: 201-142-8

Danger

Cas No.: 78-78-4

Index No.: 601-006-00-1

Hazard: H225 H304 H336 H411 EUH066

Precaution: P210 P261 P273 P301+P310 P331

Cat No.	Grade	Assay	Info.	Per
ESC55452		N/A		2.5L

**N-PENTANE** $\text{CH}_3(\text{CH}_2)_3\text{CH}_3 = 72.15\text{g/mol}$ 

-49°C

UN Class: 3 /UN1265 PG-II

EC No.: 203-692-4

Danger

Cas No.: 109-66-0

Index No.: 601-006-00-1

Hazard: H225 H304 H336 H411 EUH066

Precaution: P210 P261 P273 P301+P310 P331

Cat No.	Grade	Assay	Info.	Per
ESC55708		99%		2.5L

**PENTAN-1-OL (N-AMYL ALCOHOL)** $\text{CH}_3(\text{CH}_2)_4\text{OH} = 88.15\text{g/mol}$ 

49°C

UN Class: 3 /UN1105 PG-III

EC No.: 200-752-1

Warning

Cas No.: 71-41-0

Index No.: 603-200-00-1

Hazard: H226 H332 H335 H315

Precaution: P261

Cat No.	Grade	Assay	Info.	Per
ESC55748		99%		1L
ESC55749		>99%		2.5L

**PENTAN-2-OL** $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}(\text{OH})\text{CH}_3 = 88.15\text{g/mol}$ 

34°C

UN Class: 3 /UN1105 PG-III

EC No.: 227-907-6

Warning

Cas No.: 6032-29-7

Index No.: 603-006-00-7

Hazard: H226 H332 H335 EUH066

Precaution: P261

Cat No.	Grade	Assay	Info.	Per
ESC55751		99%		100ml

**PEPTONE BACTERIOLOGICAL**

UN Class: N/A

EC No.: N/A

Cas No.: 73049-73-7

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55753		N/A		100g

**PETROLEUM ETHER (LIGROIN)**

N/A



-56°C

UN Class: 3 /UN1268 PG-II

EC No.: 232-453-7

Danger

Cas No.: 8032-32-4

Index No.: 649-263-00-9

Hazard: H225 H304 H315 H336 H361 H373 H411

Precaution: P210 P261 P273 P281 P301+P310 P331

Cat No.	Grade	Assay	Info.	Per
ESC55755		95%		2.5L

**PETROLEUM JELLY - WHITE (PARAFFIN SOFT WHITE)**

UN Class: N/A

EC No.: 232-373-2

Cas No.: 8009-03-8

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55757		N/A		500g

**1-10-PHENANTHROLINE HYDRATE** $\text{C}_{12}\text{H}_8\text{N}_2 \cdot \text{H}_2\text{O} = 198.22\text{g/mol}$ 

UN Class: 6.1 /UN2811 PG-III

EC No.: 200-629-2

Danger

Cas No.: 5144-89-8

Index No.: 613-092-00-8

Hazard: H301 H410

Precaution: P273 P301+P310 P501

Cat No.	Grade	Assay	Info.	Per
ESC55759		98%		5g

**PHENOL (CARBOLIC ACID)** $\text{C}_6\text{H}_5\text{OH} = 94.11\text{g/mol}$ 

UN Class: 6.1 /UN1671 PG-II

EC No.: 203-632-7

Danger

Cas No.: 108-95-2

Index No.: 604-001-00-2

Hazard: H341 H331 H311 H301 H373 H314

Precaution: P261 P280 P301+P310 P305+P351+P338 P312

Cat No.	Grade	Assay	Info.	Per
ESC55761		98%		500g



## PHENOLPHTHALEIN 1% SOLUTION

N/A



13°C

UN Class: 3 / UN1170 PG-II

EC No.: N/A

Danger

Cas No.: N/A

Index No.: Not listed

Hazard: H225 H341 H350

Precaution: P201 P210 P281 P308+P313

Cat No.	Grade	Assay	Info.	Per
ESC55768		0.01%	pH 8.3-10.0	1L

## PHENYL SALICYLATE (PHENYL-2-HYDROXYBENZOATE OR SALOL)

 $C_6H_4(OH)COOC_6H_5 = 214.22g/mol$ 

UN Class: N/A

EC No.: 204-259-2

Warning

Cas No.: 118-55-8

Index No.: Not listed

Hazard: H315 H319 H335

Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55771		99%		100g
ESC55772		99%		250g

## PHENOLPHTHALEIN

 $OCOC_6H_4C(C_6H_4OH)_2 = 318.33g/mol$ 

UN Class: N/A

EC No.: 201-004-7

Danger

Cas No.: 77-09-8

Index No.: 604-076-00-1

Hazard: H350 H341 H361f

Precaution: P201 P281 P308+P313

Cat No.	Grade	Assay	Info.	Per
ESC55775		N/A	pH 8.3-10.0	50g
ESC55776		N/A	pH 8.3-10.0	100g

## PHENOL RED (PHENOLSULFONPHTHALEIN)

 $C_{19}H_{14}O_5S = 354.38g/mol$ 

UN Class: N/A

EC No.: 205-609-7

Warning

Cas No.: 143-74-8

Index No.: Not listed

Hazard: H315 H319 H335

Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55764		N/A		25g

## DL-PHENYLALANINE (DLPA)

 $C_6H_5CH_2CH(NH_2)COOH = 165.19g/mol$ 

UN Class: N/A

EC No.: 205-756-7

Cas No.: 150-30-1

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55766		99%		5g

PHENYLAMINE SEE ANILINE

PHENYLAMMONIUM CHLORIDE SEE ANILINE HYDROCHLORIDE

PHENYLETHYLENE SEE STYRENE

PHENYLMETHANOL SEE BENZYL ALCOHOL

## PHLOROGLUCINOL 2-WATER (BENZENE-1,3,5-TRIOL)

 $C_6H_3(OH)_3 \cdot 2H_2O = 162.14g/mol$ 

UN Class: N/A

EC No.: 203-611-2

Cas No.: 6099-90-7

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55779		95%		10g

## PHLOROGLUCINOL 5% SOLUTION - ALCOHOLIC

N/A



13°C

UN Class: 3 / UN1170 PG-II

EC No.: N/A

Danger

Cas No.: N/A

Index No.: Not listed

Hazard: H225 H371

Precaution: P210 P260

Cat No.	Grade	Assay	Info.	Per
ESC55780		N/A		100ml

## PHOSPHORUS - RED

 $P = 30.97g/mol$ 

13°C

UN Class: 4.1 / UN1338 PG-III

EC No.: 231-768-7

Danger

Cas No.: 7723-14-0

Index No.: 015-002-00-7

Hazard: H228 H412

Precaution: P210 P273

Cat No.	Grade	Assay	Info.	Per
ESC55784		98%		100g

PHOSPHORIC ACID SEE ORTHOPHOSPHORIC ACID



## PHOSPHOROUS PENTACHLORIDE

N/A



**UN Class:** 8 /UN1806 PG-II **EC No.:** N/A **Danger**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H330 H302 H373 H314 EUH014 EUH029  
**Precaution:** P260 P280 P284 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55787		N/A		500g

## PHOSPHORUS PENTOXIDE (PHOSPHORIC ANHYDRIDE)

 $P_2O_5 = 141.94g/mol$ 

**UN Class:** 8 /UN1807 PG-II **EC No.:** 215-236-1 **Danger**  
**Cas No.:** 1314-56-3 **Index No.:** 015-010-00-0  
**Hazard:** H314  
**Precaution:** P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55790		95%		250g

## PHTHALIC ACID (BENZENE-1,2-DICARBOXYLIC ACID)

 $C_6H_4(COOH)_2 = 166.13g/mol$ 

**UN Class:** N/A **EC No.:** 201-873-2 **Warning**  
**Cas No.:** 88-99-3 **Index No.:** Not listed  
**Hazard:** H315 H319 H335  
**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55793		98%		250g

## PHTHALIC ANHYDRIDE (2-BENZOFURAN-1,3-DIONE)

 $COC_6H_4COO = 148.12g/mol$ 

**UN Class:** 8 /UN2214 PG-III **EC No.:** 201-607-5 **Danger**  
**Cas No.:** 85-44-9 **Index No.:** 607-009-00-4  
**Hazard:** H302 H335 H315 H318 H334 H317  
**Precaution:** P261 P280 P305+P351+P338 P342+P311

Cat No.	Grade	Assay	Info.	Per
ESC55796		99.5%		500g

## POLY(VINYL ALCOHOL) (ETHENOL)

 $(CH_2:CHOH)_n = 17000g/mol$ 

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** 9002-89-5 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55799		85%		250g
ESC55800		87 - 90%		500g

## PEPTONE BACTERIOLOGICAL

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** 73049-73-7 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55753		N/A		100g

## POTASSIUM METAL IN LIQUID PARAFFIN

 $K = 39.1g/mol$ 

**UN Class:** 4.3 /UN2257 PG-I **EC No.:** 231-119-8 **Danger**  
**Cas No.:** 7440-09-7 **Index No.:** 019-001-00-2  
**Hazard:** H260 H314 EUH014  
**Precaution:** P223 P231+P232 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55805		98%	SURCHARGE	25g
ESC55806		98%	SURCHARGE	100g

## POTASSIUM BROMATE

 $KBrO_3 = 167g/mol$ 

**UN Class:** 5.1 /UN1484 PG-II **EC No.:** 231-829-8 **Danger**  
**Cas No.:** 7758-01-2 **Index No.:** 035-003-00-6  
**Hazard:** H271 H350 H301  
**Precaution:** P201 P220 P301+P310 P308+P313

Cat No.	Grade	Assay	Info.	Price	Per
ESC55814		99.5%		15.95	250g

## POTASSIUM BROMIDE

 $KBr = 119g/mol$ 

**UN Class:** N/A **EC No.:** 231-830-3 **Warning**  
**Cas No.:** 7758-02-3 **Index No.:** Not listed  
**Hazard:** H315 H319 H335  
**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55818		99%		500g

## POTASSIUM CARBONATE ANHYDROUS

 $K_2CO_3 = 138.21g/mol$ 

**UN Class:** N/A **EC No.:** 209-529-3 **Warning**  
**Cas No.:** 584-08-7 **Index No.:** Not listed  
**Hazard:** H302 H315 H319 H335  
**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55821		99.5%		500g





## POTASSIUM CHLORATE

 $\text{KClO}_3 = 122.55\text{g/mol}$ 

**UN Class:** 5.1 /UN1485 PG-II **EC No.:** 223-289-7 **Danger**  
**Cas No.:** 3811-04-9 **Index No.:** 017-004-00-3  
**Hazard:** H271 H332 H302 H411  
**Precaution:** P220 P273

Cat No.	Grade	Assay	Info.	Per
ESC55824		98%		500g

## POTASSIUM CHLORIDE

 $\text{KCl} = 74.55\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-211-8  
**Cas No.:** 7447-40-7 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55828		99%		500g
ESC55829		>99%		1kg

## POTASSIUM CHROMATE

 $\text{K}_2\text{CrO}_4 = 194.19\text{g/mol}$ 

**UN Class:** 6.1 /UN3288 PG-III **EC No.:** 232-140-5 **Danger**  
**Cas No.:** 7789-00-6 **Index No.:** 024-006-00-8  
**Hazard:** H350i H340 H319 H335 H315 H317 H410  
**Precaution:** P201 P261 P273 P280 P305+P351+P338 P308+P313

Cat No.	Grade	Assay	Info.	Per
ESC55832		99%		500g

## TRI-POTASSIUM CITRATE

 $\text{C}_6\text{H}_5\text{K}_3\text{O}_7 \cdot \text{H}_2\text{O} = 324.41\text{g/mol}$ 

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** 6100-05-6 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55835		99%		500g

## POTASSIUM DICHROMATE

 $\text{K}_2\text{Cr}_2\text{O}_7 = 294.18\text{g/mol}$ 

**UN Class:** 6.1 /UN3087 PG-II **EC No.:** 231-906-6 **Danger**  
**Cas No.:** 7778-50-9 **Index No.:** 024-002-00-6  
**Hazard:** H272 H350 H340 H360FD H330 H301 H372 H312 H314 H334 H317 H410  
**Precaution:** P201 P220 P260 P273 P280 P284

Cat No.	Grade	Assay	Info.	Per
ESC55838		99%	SURCHARGE	250g

## POTASSIUM DIHYDROGEN PHOSPHATE

 $\text{KH}_2\text{PO}_4 = 136.09\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-913-4  
**Cas No.:** 7778-77-0 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55842		98%		500g

## POTASSIUM FERRICYANIDE (POTASSIUM HEXACYANOFERRATE (III))

 $\text{K}_3\text{Fe}(\text{CN})_6 = 329.24\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 237-323-3 **Warning**  
**Cas No.:** 13746-66-2 **Index No.:** Not listed  
**Hazard:** EUH032  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55846		99%		100g
ESC55847		99%		250g

## POTASSIUM FERROCYANIDE (POTASSIUM HEXACYANOFERRATE (II))

 $\text{K}_4\text{Fe}(\text{CN})_6 \cdot 3\text{H}_2\text{O} = 422.39\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 237-722-2 **Warning**  
**Cas No.:** 14459-95-1 **Index No.:** Not listed  
**Hazard:** EUH032  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55850		98.5%		250g

## POTASSIUM HYDROGEN CARBONATE (POTASSIUM BICARBONATE)

 $\text{KHCO}_3 = 100.12\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 206-059-0  
**Cas No.:** 298-14-6 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55853		99.5%		500g

## DI-POTASSIUM HYDROGEN PHOSPHATE

 $\text{K}_2\text{HPO}_4 = 174.18\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-834-5  
**Cas No.:** 7758-11-4 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required



Cat No.	Grade	Assay	Info.	Per
ESC55250		98%		500g



### POTASSIUM HYDROGEN PHTHALATE

$\text{COOH} \cdot \text{C}_6\text{H}_4 \cdot \text{COOH} = 204.22\text{g/mol}$

**UN Class:** N/A **EC No.:** 212-889-4  
**Cas No.:** 877-24-7 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required


Cat No.	Grade	Assay	Info.	Per
ESC55860		99.5%		250g
ESC55861		99.5%		500g

### POTASSIUM HYDROGEN SULPHATE (POTASSIUM BISULPHATE)

$\text{KHSO}_4 = 136.16\text{g/mol}$




**UN Class:** 8 / UN2509 PG-II **EC No.:** 231-594-1 **Danger**  
**Cas No.:** 7646-93-7 **Index No.:** 016-056-00-4  
**Hazard:** H314 H335  
**Precaution:** P261 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55865		98%		250g

### POTASSIUM HYDROGEN TARTRATE (CREAM OF TARTAR)

$\text{KO}_2\text{CCH(OH)CH(OH)COOH} = 188.18\text{g/mol}$

**UN Class:** N/A **EC No.:** 212-769-1  
**Cas No.:** 868-14-4 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required


Cat No.	Grade	Assay	Info.	Per
ESC55869		98%		250g

### POTASSIUM HYDROXIDE FLAKE

$\text{KOH} = 56.11\text{g/mol}$



**UN Class:** 8 / UN1813 PG-II **EC No.:** 215-181-3 **Danger**  
**Cas No.:** 1310-58-3 **Index No.:** 019-002-00-8  
**Hazard:** H290 H302 H314  
**Precaution:** P260 P280 P303+P361+P353 P305+P351+P338



Cat No.	Grade	Assay	Info.	Per
ESC55873		85%		500g

### POTASSIUM HYDROXIDE PELLETS

$\text{KOH} = 56.11\text{g/mol}$




**UN Class:** 8 / UN1813 PG-II **EC No.:** 215-181-3 **Danger**  
**Cas No.:** 1310-58-3 **Index No.:** 019-002-00-8  
**Hazard:** H290 H302 H314  
**Precaution:** P260 P280 P303+P361+P353 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55876		85%		250g
ESC55877		90%		500g

### POTASSIUM IODATE (V)



**UN Class:** 5.1 / UN1479 PG-II **EC No.:** 231-831-9 **Danger**  
**Cas No.:** 7758-05-6 **Index No.:** Not listed  
**Hazard:** H272 H315 H319 H335  
**Precaution:** P220 P261 P305+P351+P338


Cat No.	Grade	Assay	Info.	Per
ESC55881		99%		100g

### POTASSIUM IODATE (VII) (POTASSIUM PERIODATE)

$\text{KIO}_4 = 230\text{g/mol}$



**UN Class:** 5.1 / UN1479 PG-II **EC No.:** 232-196-0 **Danger**  
**Cas No.:** 7790-21-8 **Index No.:** Not listed  
**Hazard:** H272 H315 H319 H335  
**Precaution:** P220 P261 P305+P351+P338




Cat No.	Grade	Assay	Info.	Per
ESC55885		99%		100g

### POTASSIUM IODIDE

$\text{KI} = 166\text{g/mol}$

**UN Class:** N/A **EC No.:** 231-659-4  
**Cas No.:** 7681-11-0 **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required


Cat No.	Grade	Assay	Info.	Per
ESC55889		99%		100g
ESC55890		99%		250g
ESC55891		99%		500g

### POTASSIUM MANGANATE (VII) (POTASSIUM PERMANGANATE)

$\text{KMnO}_4 = 158.03\text{g/mol}$



**UN Class:** 5.1 / UN1490 PG-II **EC No.:** 231-760-3 **Danger**  
**Cas No.:** 7722-64-7 **Index No.:** 025-002-00-9  
**Hazard:** H272 H302 H410  
**Precaution:** P220 P273 P501


Cat No.	Grade	Assay	Info.	Per
ESC55893		99%	Powder	500g



## POTASSIUM MANGANATE SOLUTION (VII)

 $\text{KMnO}_4 = 158.03\text{g/mol}$ 


UN Class: N/A EC No.: 231-760-3 Danger  
 Cas No.: 7722-64-7 Index No.: 025-002-00-9  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55895		0.02M (0.1N)		1L

## POTASSIUM PERSULPHATE (DIPOTASSIUM PEROXODISULPHATE)

 $\text{K}_2\text{S}_2\text{O}_8 = 270.32\text{g/mol}$ 


UN Class: 5.1 / UN1492 PG-III EC No.: 231-781-8 Danger  
 Cas No.: 7727-21-1 Index No.: 016-061-00-1  
 Hazard: H272 H302 H319 H335 H315 H334 H317  
 Precaution: P220 P261 P280 P305+P351+P338 P342+P311

Cat No.	Grade	Assay	Info.	Per
ESC55909		98%		500g

## POTASSIUM METABISULPHITE (DIPOTASSIUM DISULPHITE)

 $\text{K}_2\text{S}_2\text{O}_5 = 222.32\text{g/mol}$ 


UN Class: N/A EC No.: 240-795-3 Warning  
 Cas No.: 16731-55-8 Index No.: Not listed  
 Hazard: H315 H319 H335  
 Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55897		96%		500g

## POTASSIUM SODIUM TARTRATE (ROCHELLE SALT)

 $\text{KOCOCH(OH)CH(OH)COONa} \cdot 4\text{H}_2\text{O} = 282.22\text{g/mol}$ 


UN Class: N/A EC No.: 206-156-8  
 Cas No.: 6381-59-5 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55912		99%		500g

## POTASSIUM NITRATE

 $\text{KNO}_3 = 101.1\text{g/mol}$ 


UN Class: 5.1 / UN1486 PG-III EC No.: 231-818-8 Warning  
 Cas No.: 7757-79-1 Index No.: Not listed  
 Hazard: H272  
 Precaution: P220

Cat No.	Grade	Assay	Info.	Per
ESC55899		99%		500g

## POTASSIUM SULPHATE

 $\text{K}_2\text{SO}_4 = 174.26\text{g/mol}$ 


UN Class: N/A EC No.: 231-915-5 Danger  
 Cas No.: 7778-80-5 Index No.: Not listed  
 Hazard: H314  
 Precaution: P280 P310 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55914		>98%		500g

## POTASSIUM NITRITE

 $\text{KNO}_2 = 85.1\text{g/mol}$ 


UN Class: 5.1 / UN1488 PG-II EC No.: 231-832-4 Danger  
 Cas No.: 7758-09-0 Index No.: 007-011-00-X  
 Hazard: H272 H301 H400  
 Precaution: P220 P273 P301+P310

Cat No.	Grade	Assay	Info.	Per
ESC55901		97%		100g

## POTASSIUM THIOCYANATE

 $\text{KSCN} = 97.18\text{g/mol}$ 


UN Class: N/A EC No.: 206-370-1 Warning  
 Cas No.: 333-20-0 Index No.: 615-030-00-5  
 Hazard: H332 H312 H302 H412  
 Precaution: P273 P280

Cat No.	Grade	Assay	Info.	Per
ESC55917		97%		500g

## POTASSIUM OXALATE 1-WATER (POTASSIUM ETHANEDIOATE)

 $(\text{COOK})_2 \cdot \text{H}_2\text{O} = 184.23\text{g/mol}$ 


UN Class: N/A EC No.: 209-506-8 Warning  
 Cas No.: 6487-48-5 Index No.: Not listed  
 Hazard: H302 H312  
 Precaution: P280

Cat No.	Grade	Assay	Info.	Per
ESC55904		98%		500g

## L-PROLINE

UN Class: N/A EC No.: 205-702-2  
 Cas No.: 147-85-3 Index No.: Not listed

Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55919		98%		5g



## PROPANAL (PROPIONALDEHYDE)

 $\text{CH}_3\text{CH}_2\text{CHO} = 58.08\text{g/mol}$ UN Class: 3 /UN1275 PG-II  
Cas No.: 123-38-6

EC No.: 204-623-0

Index No.: 605-018-00-8

Danger

Hazard: H225 H319 H335 H315

Precaution: P210 P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55928		97%		250ml

## PROPANE-1-2-DIOL (PROPYLENE GLYCOL)

 $\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{OH} = 76.1\text{g/mol}$ 

UN Class: N/A

EC No.: 200-338-0

Cas No.: 57-55-6

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55932		99%		500ml

## PROPIONIC ACID (PROPANOIC ACID)

 $\text{CH}_3\text{CH}_2\text{COOH} = 74.08\text{g/mol}$ 

UN Class: 8(3) /UN3463 PG-II

EC No.: 201-176-3

Cas No.: 79-09-4

Index No.: 607-089-00-0

Danger

Hazard: H314

Precaution: P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55935		99%		250ml
ESC55936		99%		500ml

## PROPAN-1-OL (N-PROPYL ALCOHOL)

 $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH} = 60.1\text{g/mol}$ 

15°C

UN Class: 3 /UN1274 PG-II

EC No.: 200-746-9

Cas No.: 71-23-8

Index No.: 603-003-00-0

Danger

Hazard: H225 H318 H336

Precaution: P210 P261 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55921		99%		500ml

## PROPAN-2-OL (ISO-PROPYL ALCOHOL)

 $(\text{CH}_3)_2\text{CHOH} = 60.1\text{g/mol}$ 

12°C

UN Class: 3 /UN1219 PG-II

EC No.: 200-661-7

Cas No.: 67-63-0

Index No.: 603-117-00-0

Danger

Hazard: H225 H319 H336

Precaution: P210 P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55924		99.5%		1L
ESC55925		99.5%		2.5L

## PYRIDINE

 $\text{C}_5\text{H}_5\text{N} = 79.1\text{g/mol}$ 

20°C

UN Class: 3 /UN1282 PG-II

EC No.: 203-809-9

Cas No.: 110-86-1

Index No.: 613-002-00-7

Danger

Hazard: H225 H332 H312 H302

Precaution: P210

Cat No.	Grade	Assay	Info.	Per
ESC55939		99%		500ml

## PYROGALLOL (1,2,3-TRIHIDROXYBENZENE)

 $\text{C}_6\text{H}_3(\text{OH})_3 = 126.11\text{g/mol}$ 

UN Class: 6.1 /UN2811 PG-III

EC No.: 201-762-9

Cas No.: 87-66-1

Index No.: 604-009-00-6

Warning

Hazard: H341 H332 H312 H302 H412

Precaution: P273 P281

Cat No.	Grade	Assay	Info.	Per
ESC55941		99%		100g

## QUININE

 $\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 \cdot 3\text{H}_2\text{O} = 378.47\text{g/mol}$ 

UN Class: N/A

EC No.: 205-003-2

Cas No.: 130-95-0

Index No.: Not listed

Warning

Hazard: H302 H315 H317 H319 H335

Precaution: P261 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55943		97%		1g

## RENNET POWDER

 $\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 \cdot 3\text{H}_2\text{O} = 378.47\text{g/mol}$ 

UN Class: N/A

EC No.: 232-645-0

Cas No.: 9001-98-3

Index No.: 647-009-00-1

Danger

Hazard: H319 H335 H315 H334

Precaution: P261 P305+P351+P338 P342+P311

Cat No.	Grade	Assay	Info.	Per
ESC55945		N/A		25g

## RESAZURIN TABLETS

UN Class: N/A

EC No.: N/A

Cas No.: 5508-82-3

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55947		N/A	pH 4.2-6.3	25 pk
ESC55948		N/A	pH 4.2-6.3	100 pk





## RESORCINOL (BENZENE-1,3-DIOL)

 $C_6H_4(OH)_2 = 110.11g/mol$ 

**UN Class:** 6.1 /UN2876 PG-III **EC No.:** 203-585-2 **Warning**  
**Cas No.:** 108-46-3 **Index No.:** 604-010-00-1  
**Hazard:** H302 H315 H319 H400  
**Precaution:** P273 P305+P351+P338 P301+P312

Cat No.	Grade	Assay	Info.	Per
ESC55950		98%		100g

## SCHIFF'S REAGENT (FOR DETECTION OF ALDEHYDES)

N/A



**UN Class:** N/A **EC No.:** N/A **Danger**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H290 H314 H350  
**Precaution:** P201 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55967		N/A		250ml

## SAFRANIN O STAIN C.I.50240 (BASIC RED 2)

 $C_{20}H_{24}N_2O_2 \cdot 3H_2O = 378.47g/mol$ 

**UN Class:** N/A **EC No.:** 207-518-8 **Danger**  
**Cas No.:** 477-73-6 **Index No.:** Not listed  
**Hazard:** H318  
**Precaution:** P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55956		N/A	Powder	5g

## SCHULTZE'S SOLUTION (CHLOR-ZINC-IODINE SOLUTION)

N/A



**UN Class:** N/A **EC No.:** N/A **Danger**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H302 H314 H410  
**Precaution:** P273 P280 P305+P351+P338 P310 P501

Cat No.	Grade	Assay	Info.	Per
ESC55969		N/A		100ml

## SAFRANIN O 1% AQUEOUS SOLUTION

**UN Class:** N/A **EC No.:** 207-518-8  
**Cas No.:** 477-73-6 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55953		1%	Solution	100ml

## SEBACOYL CHLORIDE

N/A



**UN Class:** 8 /UN3265 PG-II **EC No.:** 203-843-4 **Danger**  
**Cas No.:** 111-19-3 **Index No.:** Not listed  
**Hazard:** H302 H310 H314  
**Precaution:** P280 P302+P350 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC55972		97%		25ml

## SALICYLIC ACID (2-HYDROXYBENZOIC ACID)

 $C_6H_4(OH)COOH = 138.12g/mol$ 

**UN Class:** N/A **EC No.:** 200-712-3 **Danger**  
**Cas No.:** 69-72-7 **Index No.:** Not listed  
**Hazard:** H302 H318  
**Precaution:** P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55959		99%		100g
ESC55961		99%		500g
ESC55962		99.5%		1kg

## SEBACOYL CHLORIDE 5% IN CYCLOHEXANE

N/A



**UN Class:** 3 /UN1145 PG-II **EC No.:** N/A **Danger**  
**Cas No.:** N/A **Index No.:** Not listed  
**Hazard:** H225 H304 H315 H336 H410  
**Precaution:** P210 P273 P280 P301+P330+P331 P307+P311

Cat No.	Grade	Assay	Info.	Per
ESC55974		N/A		100ml

## SILICA SAND (ACID WASHED)

**UN Class:** N/A **EC No.:** 231-545-4  
**Cas No.:** 7631-86-9 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55965		N/A	pH 4.2-6.3	5kg
ESC55964		N/A	pH 4.2-6.3	1kg

## L-SERINE


**UN Class:** N/A **EC No.:** 200-274-3  
**Cas No.:** 56-45-1 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55976		98.5%		5g



**SILICA GEL**

UN Class: N/A EC No.: 231-545-4  
 Cas No.: 112926-00-8 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required


Cat No.	Grade	Assay	Info.	Per
ESC55983		98%		500g

**SILICA GEL SELF-INDICATING (BLUE-PINK)**

N/A




UN Class: N/A EC No.: 231-545-4 Danger  
 Cas No.: 112926-00-8 Index No.: Not listed  
 Hazard: H350i H412  
 Precaution: P201 P273 P308+P313

Cat No.	Grade	Assay	Info.	Per
ESC55978		97%		500g


**SILICA GEL SELF-INDICATING (ORANGE) (ORANGE TO COLOURLESS)**

UN Class: N/A EC No.: 231-545-4  
 Cas No.: 112926-00-8 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55981		97%		500g


**SILICON (IV) OXIDE (SILICON DIOXIDE)** $\text{SiO}_2 = 60.08\text{g/mol}$ 

UN Class: N/A EC No.: 231-545-4 Warning  
 Cas No.: 7631-86-9 Index No.: Not listed  
 Hazard: H319 H335  
 Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55985		97%		250g




**SILVER WIRE** $\text{Ag} = 107.87\text{g/mol}$ 

UN Class: N/A EC No.: 231-131-3  
 Cas No.: 7440-22-4 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required  
 Notes: Approximately 150mm

Cat No.	Grade	Assay	Info.	Per
ESC55987		N/A		10g



**SILVER NITRATE** $\text{AgNO}_3 = 169.87\text{g/mol}$ 

UN Class: 5.1 /UN1493 PG-II EC No.: 231-853-9 Danger  
 Cas No.: 7761-88-8 Index No.: 047-001-00-2  
 Hazard: H272 H314 H410  
 Precaution: P220 P273 P280 P305+P351+P338 P310 P501

Cat No.	Grade	Assay	Info.	Per
ESC55993		99.9%		10g
ESC55994		99.9%		25g
ESC55996		99.9%		100g


**SILVER NITRATE 0.1M (0.1N) SOLUTION** $\text{AgNO}_3 = 169.87\text{g/mol}$ 

UN Class: 9 /UN3082 PG-III EC No.: 231-853-9 Warning  
 Cas No.: 7761-88-8 Index No.: 047-001-00-2  
 Hazard: H315 H319 H412  
 Precaution: P273 P280 P305+P351+P338 P337+P313

Cat No.	Grade	Assay	Info.	Per
ESC55989		0.1M	0.1M (0.1N)	500ml
ESC55991		0.1M	0.1M (0.1N)	2.5L

**SILVER SULPHATE** $\text{Ag}_2\text{SO}_4 = 311.8\text{g/mol}$ 

UN Class: N/A EC No.: 233-653-7 Warning  
 Cas No.: 10294-26-5 Index No.: Not listed  
 Hazard: H315 H319 H335 H400  
 Precaution: P261 P273 P305+P351+P338



Cat No.	Grade	Assay	Info.	Per
ESC55998		98.5%		10g

**SOAP SOLUTION**

N/A



UN Class: 3 /UN1170 PG-II EC No.: N/A Danger  
 Cas No.: N/A Index No.: Not listed  
 Hazard: H225 H371  
 Precaution: P210 P260

Cat No.	Grade	Assay	Info.	Per
ESC55999		N/A	Clark's	1L
ESC56000		N/A	Wanklyn's	1L



## SODA LIME

N/A



UN Class: 8 /UN1907 PG-III

EC No.: N/A

Danger

Cas No.: 8006-28-8

Index No.: Not listed

Hazard: H314

Precaution: P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC56001		98%	Granualted	500g
ESC56002		98%	Self-Indicating	1kg

## SODIUM METAL IN LIQUID PARAFFIN

Na = 22.99g/mol



UN Class: 4.3 /UN1428 PG-I

EC No.: 231-132-9

Danger

Cas No.: 7440-23-5

Index No.: 011-001-00-0

Hazard: H260 H314

Precaution: P223 P231+P232 P280 P301+P310

Cat No.	Grade	Assay	Info.	Per
ESC56005		99%	SURCHARGE	50g
ESC56006		99%	SURCHARGE	100g

## SODIUM ACETATE ANHYDROUS (SODIUM ETHANOATE)

CH<sub>3</sub>COONa = 82.03g/mol

UN Class: N/A

EC No.: 204-823-8

Warning

Cas No.: 127-09-3

Index No.: Not listed

Hazard: H319

Precaution: P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56014		98%		500g

## SODIUM ALGinate

UN Class: N/A

EC No.: N/A

Cas No.: 9005-38-3

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56018		97%		100g
ESC56020		97%		500g

## SODIUM AZIDE

NaN<sub>3</sub> = 65.01g/mol

UN Class: 6.1 /UN1687 PG-II

EC No.: 247-852-1

Danger

Cas No.: 26628-22-8

Index No.: 011-004-00-7

Hazard: H300 H400 H410 EUH032

Precaution: P273 P501

Cat No.	Grade	Assay	Info.	Per
ESC56022		99%		100g

## SODIUM BENZOATE

C<sub>6</sub>H<sub>5</sub>COONa = 144.1g/mol

UN Class: N/A

EC No.: 208-534-8

Warning

Cas No.: 532-32-1

Index No.: Not listed

Hazard: H319

Precaution: P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56025		99%		500g

## SODIUM BICARBONATE SEE SODIUM HYDROGEN CARBONATE

## SODIUM BISULPHATE SEE SODIUM HYDROGEN SULPHATE

## SODIUM BOROHYDRIDE (SODIUM TETRAHYDRIDOBORATE)

NaBH<sub>4</sub> = 37.83g/mol

UN Class: 4.3 /UN1426 PG-I

EC No.: 241-004-4

Danger

Cas No.: 16940-66-2

Index No.: Not listed

Hazard: H260 H301 H311 H314

Precaution: P223 P231+P232 P280 P301+P310

Cat No.	Grade	Assay	Info.	Per
ESC56027		99%	SURCHARGE	100g

## SODIUM BROMATE

NaBrO<sub>3</sub> = 150.89g/mol

UN Class: 5.1 /UN1494 PG-II

EC No.: 232-160-4

Danger

Cas No.: 7789-38-0

Index No.: Not listed

Hazard: H272 H302 H315 H319 H335

Precaution: P220 P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56030		99%		500g

## SODIUM BROMIDE

NaBr = 102.89g/mol



UN Class: N/A

EC No.: 231-599-9

Warning

Cas No.: 7647-15-6

Index No.: Not listed

Hazard: H319

Precaution: P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56034		99%		500g



## SODIUM CARBONATE 10-WATER

 $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O} = 286.14\text{g/mol}$ 


UN Class: N/A  
Cas No.: 6132-02-1

EC No.: 207-838-8  
Index No.: 011-005-00-2

Warning

Hazard: H319  
Precaution: P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56037		98%	Clark's	1kg

## MANGANESE (II) CARBONATE

 $\text{MnCO}_3 = 114.95\text{g/mol}$ 

UN Class: N/A  
Cas No.: 598-62-9

EC No.: 209-942-9  
Index No.: Not listed

Hazard: Not considered hazardous  
Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
CHE291774		93%		500g

## SODIUM CARBONATE ANHYDROUS

 $\text{Na}_2\text{CO}_3 = 105.99\text{g/mol}$ 


UN Class: N/A  
Cas No.: 497-19-8

EC No.: 207-838-8  
Index No.: 011-005-00-2

Warning

Hazard: H319  
Precaution: P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56044		99%		500g
ESC56045		99%		1kg

## SODIUM CHLORIDE - GRANULAR

 $\text{NaCl} = 58.44\text{g/mol}$ 

UN Class: N/A  
Cas No.: 7647-14-5

EC No.: 231-598-3  
Index No.: Not listed

Hazard: Not considered hazardous  
Precaution: No additional precautions required  
Notes: Large Granules - 0.5-2cm grains  
Not suitable for human consumption

Cat No.	Grade	Assay	Info.	Per
ESC56056		98%	Granular	1kg

## SODIUM CHLORIDE - ROCK SALT (SODIUM CHLORIDE TECHNICAL)

UN Class: N/A  
Cas No.: 7647-17-5

EC No.: 231-598-3  
Index No.: Not listed

Hazard: Not considered hazardous  
Precaution: No additional precautions required  
Notes: Not suitable for human consumption

Cat No.	Grade	Assay	Info.	Per
ESC56058		97%		1kg
ESC56059		97%		500g

## SODIUM CHLORATE (V)

 $\text{NaClO}_3 = 106.44\text{g/mol}$ 


UN Class: 5.1 / UN1495 PG-II  
Cas No.: 7775-09-9

EC No.: 231-887-4  
Index No.: 017-005-00-9

Danger

Hazard: H271 H302 H411  
Precaution: P220 P273

Cat No.	Grade	Assay	Info.	Per
ESC56049		99%		500g

## SODIUM CHROMATE 4-WATER

 $\text{Na}_2\text{CrO}_4 \cdot 4\text{H}_2\text{O} = 234.03\text{g/mol}$ 


UN Class: 6.1 / UN3288 PG-II  
Cas No.: 10034-82-9

EC No.: 231-889-5  
Index No.: 024-018-00-3

Danger

Hazard: H350 H340 H360FD H330 H301 H372 H312 H314 H334 H317 H410  
Precaution: P201 P260 P273 P280 P284 P301+P310

Cat No.	Grade	Assay	Info.	Per
ESC56061		96%		250g

## SODIUM CHLORIDE

 $\text{NaCl} = 58.44\text{g/mol}$ 

UN Class: N/A  
Cas No.: 7647-14-5

EC No.: 231-598-3  
Index No.: Not listed

Hazard: Not considered hazardous  
Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56053		99%		500g
ESC56054		99%		1kg

## TRI-SODIUM CITRATE 2-WATER

 $\text{HOC}(\text{COONa})(\text{CH}_2\text{COONa})_2 \cdot 2\text{H}_2\text{O} = 294.1\text{g/mol}$ 

UN Class: N/A  
Cas No.: 6132-04-3

EC No.: 200-675-3  
Index No.: Not listed

Hazard: Not considered hazardous  
Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56244		99%		500g





## SODIUM DICHROMATE (VI) ANHYDROUS

 $\text{Na}_2\text{Cr}_2\text{O}_7 = 268\text{g/mol}$ 

**UN Class:** 6.1(5.1) /UN3086 PG-II **EC No.:** 234-190-3 **Danger**  
**Cas No.:** 10588-01-9 **Index No.:** 024-004-00-7  
**Hazard:** H272 H350 H340 H360FD H330 H301 H312 H372 H314 H334 H317 H410  
**Precaution:** P201 P220 P260 P273 P280 P284

Cat No.	Grade	Assay	Info.	Per
ESC56065		99%		500g

## SODIUM DIHYDROGEN PHOSPHATE 2-WATER

 $\text{NaH}_2\text{PO}_4 \cdot 2\text{H}_2\text{O} = 156.01\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-449-2  
**Cas No.:** 13472-35-0 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56068		98%		500g

## SODIUM DIHYDROGEN PHOSPHATE ANHYDROUS

 $\text{NaH}_2\text{PO}_4 = 119.98\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-449-2 **Warning**  
**Cas No.:** 7558-80-7 **Index No.:** Not listed  
**Hazard:** H319  
**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56070		98%		1kg

## SODIUM DODECYL SULPHATE (SODIUM LAURYL SULPHATE)

 $\text{CH}_3(\text{CH}_2)_{11}\text{OSO}_3\text{Na} = 288.38\text{g/mol}$ 

**UN Class:** 4.1 /UN2926 PG-II **EC No.:** 205-788-1 **Danger**  
**Cas No.:** 151-21-3 **Index No.:** Not listed  
**Hazard:** H228 H302 H311 H315 H319 H335  
**Precaution:** P210 P261 P280 P305+P351+P338 P312

Cat No.	Grade	Assay	Info.	Per
ESC56072		98%		500g

## SODIUM FLORIDE

 $\text{NaF} = 41.99\text{g/mol}$ 

**UN Class:** 6.1 /UN1690 PG-III **EC No.:** 231-667-8 **Danger**  
**Cas No.:** 7681-49-4 **Index No.:** 009-004-00-7  
**Hazard:** H301 H319 H315  
**Precaution:** P301+P310 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56075		98%		500g

## SODIUM FORMATE

 $\text{HCOONa} = 68.01\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 205-488-0  
**Cas No.:** 141-53-7 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56078		98%		500g

## SODIUM HYDROGEN CARBONATE (SODIUM BICARBONATE)

 $\text{NaHCO}_3 = 84.01\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 205-633-8  
**Cas No.:** 144-55-8 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56085		99%		500g
ESC56086		99%		1kg

## DI-SODIUM HYDROGEN PHOSPHATE 2-WATER

 $\text{Na}_2\text{HPO}_4 \cdot 2\text{H}_2\text{O} = 177.99\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-448-7  
**Cas No.:** 10028-24-7 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55254		98%		500g

## DI-SODIUM HYDROGEN PHOSPHATE 12-WATER

 $\text{Na}_2\text{HPO}_4 \cdot 12\text{H}_2\text{O} = 358.14\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-448-7  
**Cas No.:** 10039-32-4 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55256		98%		1kg

## DI-SODIUM HYDROGEN PHOSPHATE ANHYDROUS

 $\text{Na}_2\text{HPO}_4 = 141.96\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-448-7  
**Cas No.:** 7558-79-4 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC55252		98%		500g



**SODIUM HYDROGEN SULPHATE (SODIUM BISULPHATE)**NaHSO<sub>4</sub> = 120.06g/mol

**UN Class:** N/A **EC No.:** 231-665-7 **Danger**  
**Cas No.:** 7681-38-1 **Index No.:** 016-046-00-X  
**Hazard:** H318  
**Precaution:** P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56082		98%		500g

**SODIUM HYDROXIDE - PEARL POWDER (CAUSTIC SODA)**

NaOH = 40g/mol



**UN Class:** 8 /UN1823 PG-II **EC No.:** 215-185-5 **Danger**  
**Cas No.:** 1310-73-2 **Index No.:** 011-002-00-6  
**Hazard:** H314  
**Precaution:** P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC56095		96%	Pearl powder	500g

**SODIUM HYDROXIDE - PELLETS (CAUSTIC SODA)**

NaOH = 40g/mol



**UN Class:** 8 /UN1823 PG-II **EC No.:** 215-185-5 **Danger**  
**Cas No.:** 1310-73-2 **Index No.:** 011-002-00-6  
**Hazard:** H314  
**Precaution:** P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC56093		97%		500g

**SODIUM HYDROXIDE 0.1M (0.1N)**

NaOH = 40g/mol

**UN Class:** 8 /UN1824 PG-III **EC No.:** 215-185-5  
**Cas No.:** 1310-73-2 **Index No.:** 011-002-00-6  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56088		0.1M		1L

**SODIUM HYDROXIDE 0.1M (0.1N) CVS**

NaOH = 40g/mol



**UN Class:** 8 /UN1824 PG-III **EC No.:** 215-185-5 **Danger**  
**Cas No.:** 1310-73-2 **Index No.:** 011-002-00-6  
**Hazard:** H314  
**Precaution:** P280 P305+P351+P338 P310  
**Notes:** 6 x 1M 100ml ampoules, each makes 1L of 0.1M solution.  
**Chemical info shown for ampoule not diluted solution.**

Cat No.	Grade	Assay	Info.	Price	Per
ESC56089		0.1M	Ampoule	15.95	6

**SODIUM HYDROXIDE 1.0M (1.0N) CVS**

NaOH = 40g/mol



**UN Class:** 8 /UN1824 PG-II **EC No.:** 215-185-5 **Danger**  
**Cas No.:** 1310-73-2 **Index No.:** 011-002-00-6  
**Hazard:** H314  
**Precaution:** P280 P305+P351+P338 P310  
**Notes:** 6 x 1M 100ml ampoules, each makes 1L of 0.1M solution.  
**Chemical info shown for ampoule not diluted solution.**

Cat No.	Grade	Assay	Info.	Per
ESC56090		1.0M	Ampoule	6

**SODIUM HYDROXIDE 2.0M (2.0N)**

NaOH = 40g/mol



**UN Class:** 8 /UN1824 PG-II **EC No.:** 215-185-5 **Danger**  
**Cas No.:** 1310-73-2 **Index No.:** 011-002-00-6  
**Hazard:** H314  
**Precaution:** P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC56091		2.0M		1L

**SODIUM HYDROXIDE 40% SOLUTION**

NaOH = 40g/mol



**UN Class:** 8 /UN1824 PG-II **EC No.:** 215-185-5 **Danger**  
**Cas No.:** 1310-73-2 **Index No.:** 011-002-00-6  
**Hazard:** H314  
**Precaution:** P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC56097		0.4%		1L

**SODIUM HYPOCHLORITE SOLUTION**

NaClO = 74.44g/mol



**UN Class:** 8 /UN1791 PG-III **EC No.:** 231-668-3 **Danger**  
**Cas No.:** 7681-52-9 **Index No.:** 017-011-00-1  
**Hazard:** H314 H400 EUH031  
**Precaution:** P260 P273 P280 P301+P330+P331 P303+P361+P353 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56099		10 - 15%		2.5L



## SODIUM IODATE

 $\text{NaIO}_3 \cdot \text{H}_2\text{O} = 215.91\text{g/mol}$ **UN Class:** 5.1 /UN1479 PG-II**EC No.:** 231-672-5

Danger

**Cas No.:** 7681-55-2**Index No.:** Not listed**Hazard:** H272 H302 H334 H317**Precaution:** P220 P261 P342+P311

Cat No.	Grade	Assay	Info.	Per
ESC56101		99.5%		100g

## SODIUM NITRITE

 $\text{NaNO}_2 = 69\text{g/mol}$ **UN Class:** 5.1 /UN1500 PG-III**EC No.:** 231-555-9

Danger

**Cas No.:** 7632-00-0**Index No.:** 007-010-00-4**Hazard:** H272 H301 H400**Precaution:** P220 P273

Cat No.	Grade	Assay	Info.	Per
ESC56112		98%		500g

## SODIUM IODIDE

 $\text{NaI} = 149.89\text{g/mol}$ **UN Class:** N/A**EC No.:** 231-679-3

Warning

**Cas No.:** 7681-82-5**Index No.:** Not listed**Hazard:** H315 H319 H400**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56103		99%		100g

## SODIUM METABISULPHITE (SODIUM DISULPHITE)

 $\text{Na}_2\text{S}_2\text{O}_5 = 190.11\text{g/mol}$ **UN Class:** N/A**EC No.:** 231-673-0

Danger

**Cas No.:** 7681-57-4**Index No.:** 016-063-00-2**Hazard:** H302 H318**Precaution:** P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56108		98.5%		500g

## SODIUM OXALATE (SODIUM ETHANEDIOATE)

 $\text{NaOCCOONa} = 134\text{g/mol}$ **UN Class:** 6.1 /UN3467 PG-III**EC No.:** 200-550-3

Warning

**Cas No.:** 62-76-0**Index No.:** 607-007-00-3**Hazard:** H312 H302**Precaution:** P280

Cat No.	Grade	Assay	Info.	Per
ESC56114		99.5%		500g

## SODIUM PERSULPHATE (SODIUM PEROXODISULPHATE)

 $\text{Na}_2\text{S}_2\text{O}_8 = 238.1\text{g/mol}$ **UN Class:** 5.1 /UN1505 PG-III**EC No.:** 231-892-1

Danger

**Cas No.:** 7775-27-1**Index No.:** Not listed**Hazard:** H272 H302 H315 H317 H319 H334 H335**Precaution:** P220 P261 P280 P305+P351+P338 P342+P311

Cat No.	Grade	Assay	Info.	Per
ESC56117		96%		500g

## TRI-SODIUM PHOSPHATE 12-WATER

 $\text{Na}_3\text{PO}_4 \cdot 12\text{H}_2\text{O} = 380.12\text{g/mol}$ **UN Class:** N/A**EC No.:** 231-509-8

Warning

**Cas No.:** 10101-89-0**Index No.:** Not listed**Hazard:** H315 H319 H335**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56248		98%		500g

## SODIUM NITRATE

 $\text{NaNO}_3 = 84.99\text{g/mol}$ **UN Class:** 5.1 /UN1498 PG-III**EC No.:** 231-554-3

Warning

**Cas No.:** 7631-99-4**Index No.:** Not listed**Hazard:** H272 H302 H315 H319 H335**Precaution:** P220 P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56110		98%		500g

## SODIUM SALICYLATE (SODIUM 2-HYDROXYBENZOATE)

 $\text{HOC}_6\text{H}_4\text{COONa} = 160.1\text{g/mol}$ **UN Class:** N/A**EC No.:** 200-198-0

Danger

**Cas No.:** 54-21-7**Index No.:** Not listed**Hazard:** H302 H315 H318 H335**Precaution:** P261 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56127		99%		250g



**SODIUM SILICATE SOLUTION (SODIUM TRISILICATE)** $\text{Na}_2\text{O} \cdot 3\text{SiO}_2 = 242.33\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 215-687-4 **Danger**  
**Cas No.:** 1344-09-8 **Index No.:** Not listed  
**Hazard:** H314 H335  
**Precaution:** P261 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC56130		98%		2.5L

**SODIUM SILICATE POWDER (SODIUM METASILICATE)** $\text{Na}_2\text{SiO}_3 = 122.06\text{g/mol}$ 

**UN Class:** 8 / UN3253 PG-III **EC No.:** 229-912-9 **Danger**  
**Cas No.:** 6834-92-0 **Index No.:** Not listed  
**Hazard:** H314 H335  
**Precaution:** P261 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC56132		98%		500g

**SODIUM SULPHATE ANHYDROUS** $\text{Na}_2\text{SO}_4 = 142.04\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-820-9  
**Cas No.:** 7757-82-6 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56134		99%		500g

**SODIUM SULPHIDE 9-WATER** $\text{Na}_2\text{S} \cdot 9\text{H}_2\text{O} = 240.18\text{g/mol}$ 

**UN Class:** 8 / UN1849 PG-II **EC No.:** 215-211-5 **Danger**  
**Cas No.:** 1313-84-4 **Index No.:** 016-009-00-8  
**Hazard:** H314 H400  
**Precaution:** P273 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC56136		95%		500g

**SODIUM SULPHITE ANHYDROUS (SODIUM SULPHITE (IV))** $\text{Na}_2\text{SO}_3 = 126.04\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-821-4 **Warning**  
**Cas No.:** 7757-83-7 **Index No.:** Not listed  
**Hazard:** EUH031  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56138		96%		500g

**SODIUM TAUROGLYCOCHOLATE****SEE BILE SALTS****DI-SODIUM TETRABORATE 10-WATER (BORAX POWDER)** $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O} = 381.37\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 215-540-4 **Danger**  
**Cas No.:** 1303-96-4 **Index No.:** 005-011-01-1  
**Hazard:** H360FD  
**Precaution:** P201 P308+P313

Cat No.	Grade	Assay	Info.	Per
ESC55258		98%		500g

**SODIUM THIOSULPHATE 5-WATER** $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O} = 248.18\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-867-5  
**Cas No.:** 10102-17-7 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56143		99%		500g
ESC56144		99%		1kg

**SODIUM THIOSULPHATE ANHYDROUS** $\text{Na}_2\text{S}_2\text{O}_3 = 158.11\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-867-5  
**Cas No.:** 7772-98-7 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56146		97%		500g

**SODIUM THIOSULPHATE 0.1M (0.1N)** $\text{Na}_2\text{S}_2\text{O}_3 = 158.11\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-867-5  
**Cas No.:** 10102-17-7 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56140		0.1M		1L

**SODIUM THIOSULPHATE 1M (1N)** $\text{Na}_2\text{S}_2\text{O}_3 = 158.11\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-867-5  
**Cas No.:** 10102-17-7 **Index No.:** Not listed  
**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required


Cat No.	Grade	Assay	Info.	Per
ESC56142		1M		2.5L





## SOIL INDICATOR - PH 4.0-8.0

UN Class: N/A EC No.: 216-643-7  
 Cas No.: 1633-05-2 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56148		97%		500ml

## SOLOCHROME BLACK SEE ERIOCHROME BLACK T



## STANNIC SEE TIN (IV)

## STANNOUS SEE TIN (II)

## STARCH

 $(C_6H_{10}O_5)_n$ 

UN Class: N/A EC No.: 232-679-6  
 Cas No.: 9005-25-8 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56149		N/A		100g
ESC56151		N/A		500g

## STARCH - SOLUBLE



UN Class: N/A EC No.: 232-679-6  
 Cas No.: 9005-25-8 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56153		N/A	Soluble	500g

## SASTEARIC ACID (OCTADECANOIC ACID)TARCH


 $CH_3(CH_2)_{16}COOH = 284.48g/mol$ 


UN Class: N/A EC No.: 200-313-4 Warning  
 Cas No.: 57-11-4 Index No.: Not listed  
 Hazard: H315  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56158		93%		500g
ESC56159		93%		1kg

## STEEL WOOL

UN Class: N/A EC No.: N/A  
 Cas No.: N/A Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required


Cat No.	Grade	Assay	Info.	Per
ESC56161		N/A		450g

## STRONTIUM CARBONATE

 $SrCO_3 = 147.63g/mol$ 

UN Class: N/A EC No.: 216-643-7  
 Cas No.: 1633-05-2 Index No.: Not listed

Hazard: Not considered hazardous  
 Precaution: No additional precautions required


Cat No.	Grade	Assay	Info.	Per
ESC56163		97%		100g

## STRONTIUM CHLORIDE 6-WATER

 $SrCl_2 \cdot 6H_2O = 266.62g/mol$ 


UN Class: N/A EC No.: 233-971-6 Danger  
 Cas No.: 10025-70-4 Index No.: Not listed

Hazard: H318  
 Precaution: P280 P305+P351+P338


Cat No.	Grade	Assay	Info.	Per
ESC56166		95%		100g

## STRONTIUM NITRATE

 $Sr(NO_3)_2 = 211.63g/mol$ 


UN Class: 5.1 /UN1507 PG-III EC No.: 233-131-9 Warning  
 Cas No.: 10042-76-9 Index No.: Not listed

Hazard: H272 H302 H315 H319 H335  
 Precaution: P220 P261 P305+P351+P338


Cat No.	Grade	Assay	Info.	Per
ESC56169		99%		100g

## STYRENE MONOMER (PHENYLETHYLENE)

 $C_6H_5CH=CH_2 = 104.15g/mol$ 


UN Class: 3 /UN2055 PG-III EC No.: 202-851-5 Warning  
 Cas No.: 100-42-5 Index No.: 601-026-00-0

Hazard: H226 H332 H319 H315  
 Precaution: P305+P351+P338



Cat No.	Grade	Assay	Info.	Per
ESC56171		99%		250ml

## SUCROSE (CANE SUGAR)

 $C_{12}H_{22}O_{11} = 342.3g/mol$ 

UN Class: N/A EC No.: 200-334-9  
 Cas No.: 57-50-1 Index No.: Not listed

Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56173		N/A		1kg
ESC56174		N/A		5kg



**SUCCINIC ACID (BUTANEDIOIC ACID)** $\text{HOOCCH}_2\text{CH}_2\text{COOH} = 118.09\text{g/mol}$ 

UN Class: N/A

EC No.: 203-740-4

Danger

Cas No.: 110-15-6

Index No.: Not listed

Hazard: H315 H318 H335

Precaution: P261 P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56176		99%		100g

**SULPHANILIC ACID (4-AMINO BENZENE SULPHONIC ACID)** $4\text{-(H}_2\text{N)C}_6\text{H}_4\text{SO}_3\text{H} = 173.19\text{g/mol}$ 

UN Class: N/A

EC No.: 204-482-5

Warning

Cas No.: 121-57-3

Index No.: 612-014-00-X

Hazard: H319 H315 H317

Precaution: P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56186		99 %		500g

**SUDAN (III) C.I.26100** $\text{C}_{22}\text{H}_{16}\text{N}_4\text{O} = 352.39\text{g/mol}$ 

UN Class: N/A

EC No.: 201-638-4

Cas No.: 85-86-9

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56178		N/A		100g

**SULPHUR FINE POWDER** $\text{S} = 32.07\text{g/mol}$ 

UN Class: 4.1 / UN1350 PG-III

EC No.: 231-722-6

Warning

Cas No.: 7704-34-9

Index No.: 016-094-00-1

Hazard: H228 H315

Precaution: P210 P302+P352

Cat No.	Grade	Assay	Info.	Per
ESC56188		N/A		500g

**SUDAN III ALCOHOLIC SOLUTION** $\text{C}_{22}\text{H}_{16}\text{N}_4\text{O} = 352.39\text{g/mol}$ 

12°C

UN Class: 3 / UN1170 PG-II

EC No.: N/A

Danger

Cas No.: N/A

Index No.: Not listed

Hazard: H225 H302 H371

Precaution: P210 P280 P260 P301+P312

Cat No.	Grade	Assay	Info.	Per
ESC56180		N/A		100ml

**SULPHURIC ACID 98%** $\text{H}_2\text{SO}_4 = 98\text{g/mol}$ 

UN Class: 8 / UN1830 PG-II

EC No.: 231-639-5

Danger

Cas No.: 7664-93-9

Index No.: 016-020-00-8

Hazard: H314

Precaution: P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC56199		98%		2.5L

**SUDAN IV C.I.26105** $\text{C}_{24}\text{H}_{20}\text{N}_4\text{O} = 380.44\text{g/mol}$ 

UN Class: N/A

EC No.: 201-635-8

Cas No.: 85-83-6

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56182		N/A		100g

**SULPHURIC ACID 0.05M (0.1N)** $\text{H}_2\text{SO}_4 = 98.08\text{g/mol}$ 

UN Class: N/A

EC No.: 231-639-5

Cas No.: 7664-93-9

Index No.: 016-020-00-8

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56193		0.05M		2.5L

**SULPHAMIC ACID (AMIDOSULPHONIC ACID)** $\text{NH}_2\text{SO}_3\text{H} = 97.09\text{g/mol}$ 

UN Class: 8 / UN2967 PG-III

EC No.: 226-218-8

Warning

Cas No.: 5329-14-6

Index No.: 016-026-00-0

Hazard: H319 H315 H412

Precaution: P273 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56184		99%		500g

**SULPHURIC ACID 0.05M (0.1N) CVS** $\text{H}_2\text{SO}_4 = 98.08\text{g/mol}$ 

UN Class: 8 / UN2796 PG-II

EC No.: 231-639-5

Warning

Cas No.: 7664-93-9

Index No.: 016-020-00-8

Hazard: H315 H319

Precaution: P280 P305+P351+P338

Notes: 6 x 1M 100ml ampoules, each makes 1L of 0.1M solution.

Chemical info shown for ampoule not diluted solution.

Cat No.	Grade	Assay	Info.	Per
ESC56192		0.05M	Ampoule	6



**SULPHURIC ACID 0.5M (1.0N)** $\text{H}_2\text{SO}_4 = 98.08\text{g/mol}$ 

**UN Class:** 8 /UN2796 PG-II **EC No.:** 231-639-5 **Warning**  
**Cas No.:** 7664-93-9 **Index No.:** 016-020-00-8  
**Hazard:** H315 H319  
**Precaution:** P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56190		0.5M		2.5L

**L-(+)-TARTARIC ACID (2,3-DIHYDROXYBUTANEDIOIC ACID)** $\text{HO}_2\text{CCH}(\text{OH})\text{CH}(\text{OH})\text{CO}_2\text{H} = 150.09\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 201-766-0 **Warning**  
**Cas No.:** 87-69-4 **Index No.:** Not listed  
**Hazard:** H315 H319 H335  
**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC55456		99%		500g

**SULPHURIC ACID 0.5M (1.0N) CVS** $\text{H}_2\text{SO}_4 = 98.08\text{g/mol}$ 

**UN Class:** 8 /UN2796 PG-II **EC No.:** 231-639-5 **Warning**  
**Cas No.:** 7664-93-9 **Index No.:** 016-020-00-8  
**Hazard:** H314  
**Precaution:** P280 P305+P351+P338 P310  
**Notes:** 6 x 1M 100ml ampoules, each makes 1L of 0.1M solution.  
**Chemical info shown for ampoule not diluted solution.**

Cat No.	Grade	Assay	Info.	Per
ESC56195		0.5M	Ampoule	6

**TETRACHLOROETHYLENE** $\text{CCl}_2=\text{CCl}_2 = 165.83\text{g/mol}$ 

**UN Class:** 6.1 /UN1897 PG-III **EC No.:** 204-825-9 **Warning**  
**Cas No.:** 127-18-4 **Index No.:** 602-028-00-4  
**Hazard:** H351 H411  
**Precaution:** P273 P281

Cat No.	Grade	Assay	Info.	Per
ESC56203		98%		1L

**SULPHURIC ACID 1M (2N)** $\text{H}_2\text{SO}_4 = 98.08\text{g/mol}$ 

**UN Class:** 8 /UN2796 PG-II **EC No.:** 231-639-5 **Warning**  
**Cas No.:** 7664-93-9 **Index No.:** 016-020-00-8  
**Hazard:** H315 H319  
**Precaution:** P280 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56196		1.0M		500ml

**TETRAHYDROFURAN (OXOLANE)** $\text{C}_4\text{H}_8\text{O} = 72.11\text{g/mol}$ 

**UN Class:** 3 /UN2056 PG-II **EC No.:** 203-726-8 **Danger**  
**Cas No.:** 109-99-9 **Index No.:** 603-025-00-0  
**Hazard:** H225 H319 H335 EUH019  
**Precaution:** P210 P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56205		99%		1L

**SULPHURIC ACID 2M (4N)** $\text{H}_2\text{SO}_4 = 98.08\text{g/mol}$ 

**UN Class:** 8 /UN2796 PG-II **EC No.:** 231-639-5 **Danger**  
**Cas No.:** 7664-93-9 **Index No.:** 016-020-00-8  
**Hazard:** H314  
**Precaution:** P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC56198		2.0M		500ml

**TETRAZOLIUM SALT (2,3,5-TRIPHENYLTETRAZOLIUM CHLORIDE)** $[\text{C}_6\text{H}_5\text{CN}(\text{N}(\text{C}_6\text{H}_5)_2)_2]\text{N}^+\text{Cl}^- \cdot \text{H}_2\text{O} = 334.8\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 206-071-6 **Warning**  
**Cas No.:** 298-96-4 **Index No.:** Not listed  
**Hazard:** H315 H319 H335  
**Precaution:** P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56207		98%		25g

**TANNIC ACID** $\text{C}_{76}\text{H}_{52}\text{O}_{46} = 1701.2\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 215-753-2  
**Cas No.:** 1401-55-4 **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56201		98%		100g

**THIOUREA (THIOCARBAMIDE)** $\text{NH}_2\text{CSNH}_2 = 76.12\text{g/mol}$ 

**UN Class:** 6.1 /UN2811 PG-III **EC No.:** 200-543-5 **Warning**  
**Cas No.:** 62-56-6 **Index No.:** 612-082-00-0  
**Hazard:** H351 H361d H302 H411  
**Precaution:** P273 P281

Cat No.	Grade	Assay	Info.	Per
ESC56209		98%		100g



## L-THREONINE

 $\text{CH}_3\text{CH}(\text{OH})\text{CH}(\text{NH}_2)\text{CO}_2\text{H} = 119.12\text{g/mol}$ 

UN Class: N/A


EC No.: 200-774-1

Cas No.: 72-19-5

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56211		N/A		25g

## TIN METAL - FOIL

Sn = 118.71g/mol

UN Class: N/A


EC No.: 231-141-8

Cas No.: 7440-31-5

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56222		99.5%	Foil 0.035mm	100g

## THYMOL

 $2[(\text{CH}_3)_2\text{CH}]\text{C}_6\text{H}_3-5-(\text{CH}_3)\text{OH} = 150.22\text{g/mol}$ 


UN Class: 8 / UN3261 PG-III

EC No.: 201-944-8


Danger

Cas No.: 89-83-8

Index No.: 604-032-00-1

Hazard: H302 H314 H411

Precaution: P260 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC56217		99.5%		100g

## TIN METAL - GRANULATED

Sn = 118.71g/mol

UN Class: N/A


EC No.: 231-141-8

Cas No.: 7440-31-5

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56225		99.5%	Granulated	100g

## THYMOL BLUE

 $\text{C}_{27}\text{H}_{30}\text{O}_5\text{S} = 466.59\text{g/mol}$ 

UN Class: N/A


EC No.: 200-973-3

Cas No.: 76-61-9

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56215		N/A		25g

## TIN METAL - POWDER

Sn = 118.71g/mol



UN Class: N/A

EC No.: 231-141-8


Warning

Cas No.: 7440-31-5

Index No.: Not listed

Hazard: H319 H335

Precaution: P261 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56227		99%	Powder	1g

## THYMOL BLUE 0.04% INDICATOR SOLUTION

UN Class: N/A


EC No.: N/A

Cas No.: N/A

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56213		0.04%	Solution	500ml

## TITANIUM (IV) OXIDE (TITANIUM DIOXIDE)

 $\text{TiO}_2 = 79.87\text{g/mol}$ 

UN Class: N/A


EC No.: 236-675-5

Cas No.: 13463-67-7

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56228		98%		500g

## THYMOLPHTHALEIN

 $\text{C}_{28}\text{H}_{30}\text{O}_4 = 430.54\text{g/mol}$ 

UN Class: N/A


EC No.: 204-729-7

Cas No.: 125-20-2

Index No.: Not listed

Hazard: Not considered hazardous

Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56219		N/A		25g

## TOLUENE (METHYL BENZENE)

 $\text{C}_6\text{H}_5\text{CH}_3 = 92.14\text{g/mol}$ 


4°C

UN Class: 3 / UN1294 PG-II

EC No.: 203-625-9


Danger

Cas No.: 108-88-3

Index No.: 601-021-00-3

Hazard: H225 H361d H304 H373 H315 H336

Precaution: P210 P261 P281 P301+P310 P331

Cat No.	Grade	Assay	Info.	Per
ESC56230		98%		1L






## TOLUIDINE BLUE O C.I.52040

 $C_{15}H_{16}ClN_3S = 305.83g/mol$ 

UN Class: N/A EC No.: 202-146-2  
 Cas No.: 92-31-9 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required


Cat No.	Grade	Assay	Info.	Per
ESC56233		N/A		25g

## TRIETHYLAMINE

 $(C_2H_5)_3N = 101.19g/mol$ 

UN Class: 3 /UN1296 PG-II EC No.: 204-469-4 Danger  
 Cas No.: 121-44-8 Index No.: 612-004-00-5

Hazard: H225 H332 H312 H302 H314  
 Precaution: P210 P280 P305+P351+P338 P310


Cat No.	Grade	Assay	Info.	Per
ESC56252		97%		500ml

## TRICHLOROACETIC ACID

 $CCl_3COOH = 163.39g/mol$ 

UN Class: 8 /UN1839 PG-II EC No.: 200-927-2 Danger  
 Cas No.: 76-03-9 Index No.: 607-004-00-7

Hazard: H314 H410  
 Precaution: P273 P280 P305+P351+P338 P310 P501


Cat No.	Grade	Assay	Info.	Per
ESC56236		98%		100g

## 2-2-4-TRIMETHYLPENTANE (ISO-OCTANE)

 $(CH_3)_2CHCH_2C(CH_3)_3 = 114.23g/mol$ 

UN Class: 3 /UN1262 PG-II EC No.: 203-892-1 Danger  
 Cas No.: 111-65-9 Index No.: 601-009-00-8

Hazard: H225 H304 H315 H336 H410  
 Precaution: P210 P261 P273 P301+P331 P501

Cat No.	Grade	Assay	Info.	Per
ESC54775		99%		1L

## L-TRYPTOPHAN

UN Class: N/A EC No.: 200-795-6  
 Cas No.: 73-22-3 Index No.: Not listed

Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56225		99%		25g


## L-TYROSINE

N/A



UN Class: N/A EC No.: 200-460-4 Warning  
 Cas No.: 60-18-4 Index No.: Not listed

Hazard: H315 H319 H335  
 Precaution: P261 P305+P351+P338


Cat No.	Grade	Assay	Info.	Per
ESC56258		98.5%		25g

## TRICHLOROETHYLENE (TCE)

 $ClCH=CCl_2 = 131.39g/mol$ 

UN Class: 6.1 /UN1710 PG-III EC No.: 201-167-4 Danger  
 Cas No.: 79-01-6 Index No.: 602-027-00-9

Hazard: H350 H341 H319 H315 H336 H412  
 Precaution: P201 P261 P273 P281 P305+P351+P338 P308+P313


Cat No.	Grade	Assay	Info.	Per
ESC56239		97%		1L

## TRIETHANOLAMINE (TRIS(2-HYDROXYETHYL)AMINE)

 $N(CH_2CH_2OH)_3 = 149.19g/mol$ 

UN Class: N/A EC No.: 203-049-8 Warning  
 Cas No.: 102-71-6 Index No.: Not listed

Hazard: H319  
 Precaution: P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56251		97%		1L



## UNIVERSAL INDICATOR SOLUTION PH 4 - 11

N/A



UN Class: 3 /UN1170 PG-II EC No.: N/A Danger  
 Cas No.: N/A Index No.: Not listed

Hazard: H371  
 Precaution: P260

Cat No.	Grade	Info.	Per
ESC56261		pH 4-11 Indicator Solution	500ml
ESC56262		pH 4-11 Indicator Solution	1L



## URANYL NITRATE

 $\text{UO}_2(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O} = 502.13\text{g/mol}$ 

**UN Class:** 5.1 / UN1477 PG-II **EC No.:** 233-266-3 **Danger**  
**Cas No.:** 13520-83-7 **Index No.:** 092-002-00-3

**Hazard:** H330 H300 H373 H411  
**Precaution:** P260 P280 P270 P301+P310 P501

Cat No.	Grade	Assay	Info.	Per
ESC562664		98%		1g
ESC562665		98%		5g

## UREA (CARBAMIDE)

 $\text{NH}_2\text{CONH}_2 = 60.06\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 200-315-5  
**Cas No.:** 57-13-6 **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56267		99%		500g

## L-VALINE

 $(\text{CH}_3)_2\text{CHCH}(\text{NH}_2)\text{COOH} = 117.15\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 200-773-6  
**Cas No.:** 72-18-4 **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56269		99%		25g

## VANILLIN (4-HYDROXY-3-METHOXYBENZALDEHYDE)

 $\text{C}_8\text{H}_8\text{O}_3 = 152.15\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 204-465-2 **Warning**  
**Cas No.:** 121-33-5 **Index No.:** Not listed

**Hazard:** H319  
**Precaution:** P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56270		N/A		100g

## WATER DEIONISED

 $\text{H}_2\text{O} = 18.02\text{g/mol}$ 

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** 7732-18-6 **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56271		N/A		20L

## WHITE SPIRIT

N/A



39°C

**UN Class:** 3 / UN1300 PG-III **EC No.:** 265-185-4 **Danger**  
**Cas No.:** 64742-82-1 **Index No.:** 649-330-00-2

**Hazard:** H226 H304 H336 H411  
**Precaution:** P261 P273 P301+P310 P331

Cat No.	Grade	Assay	Info.	Per
ESC56272		N/A		1L
ESC56273		N/A		2.5L

## XYLENE (DIMETHYLBENZENE)

 $\text{C}_6\text{H}_4(\text{CH}_3)_2 = 106.17\text{g/mol}$ 

33°C

**UN Class:** 3 / UN1307 PG-III **EC No.:** 215-535-7 **Danger**  
**Cas No.:** 1330-20-7 **Index No.:** 601-022-00-9

**Hazard:** H226 H332 H312 H315  
**Precaution:** P280

Cat No.	Grade	Assay	Info.	Per
ESC56277		98%		1L
ESC56278		98%		5L

## YEAST - DRIED

**UN Class:** N/A **EC No.:** N/A  
**Cas No.:** N/A **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56280		N/A		100g
ESC56282		N/A		500g

## ZINC METAL - FOIL

 $\text{Zn} = 65.39\text{g/mol}$ 

**UN Class:** N/A **EC No.:** 231-175-3  
**Cas No.:** 7440-66-6 **Index No.:** Not listed

**Hazard:** Not considered hazardous  
**Precaution:** No additional precautions required


Cat No.	Grade	Assay	Info.	Per
ESC56290		99%	Foil 0.38mm	250g



## ZINC METAL - GRANULATED

 $Zn = 65.39g/mol$ 


UN Class: N/A EC No.: 231-175-3  
 Cas No.: 7440-66-6 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56285		99.9%	Granules	500g

## ZINC CHLORIDE

 $ZnCl_2 = 136.3g/mol$ 


UN Class: 8 /UN2331 PG-III EC No.: 231-592-0 Danger  
 Cas No.: 7646-85-7 Index No.: 030-003-00-2  
 Hazard: H302 H314 H410  
 Precaution: P273 P280 P305+P351+P338 P310 P501

Cat No.	Grade	Assay	Info.	Per
ESC56305		97.5%		500g

## ZINC METAL - POWDER

 $Zn = 65.39g/mol$ 


UN Class: 4.3(4.2) /UN1436 PG-II EC No.: 231-175-3 Warning  
 Cas No.: 7440-66-6 Index No.: 030-001-00-1  
 Hazard: H260 H250 H410  
 Precaution: P222 P223

Cat No.	Grade	Assay	Info.	Per
ESC56288		99%	SURCHARGE	100g

## ZINC NITRATE 6-WATER

 $Zn(NO_3)_2 \cdot 6H_2O = 297.49g/mol$ 

UN Class: 5.1 /UN1514 PG-II EC No.: 231-943-8 Danger  
 Cas No.: 10196-18-6 Index No.: Not listed  
 Hazard: H272 H302 H315 H319 H335  
 Precaution: P220 P261 P305+P351+P338


Cat No.	Grade	Assay	Info.	Per
ESC56308		98%		500g

## ZINC ACETATE (ZINC ETHANOATE)

 $Zn(CH_3COO)_2 \cdot 2H_2O = 219.5g/mol$ 

33°C


UN Class: 9 /UN3077 PG-III EC No.: 209-170-2 Warning  
 Cas No.: 5970-45-6 Index No.: Not listed  
 Hazard: H302 H319 H400  
 Precaution: P273 P305+P351+P338

Cat No.	Grade	Assay	Info.	Per
ESC56293		98.5%		500g

## ZINC OXIDE

 $ZnO = 81.39g/mol$ 


UN Class: 9 /UN3077 PG-III EC No.: 215-222-5 Warning  
 Cas No.: 1314-13-2 Index No.: 030-013-00-7  
 Hazard: H410  
 Precaution: P271 P501

Cat No.	Grade	Assay	Info.	Per
ESC563112		99.8%		500g

## ZINC BROMIDE

 $ZnBr_2 = 225.2g/mol$ 


UN Class: 8 /UN3260 PG-III EC No.: 231-718-4 Danger  
 Cas No.: 7699-45-8 Index No.: Not listed  
 Hazard: H314 H400  
 Precaution: P273 P280 P305+P351+P338 P310

Cat No.	Grade	Assay	Info.	Per
ESC56297		98%		500ml

## ZINC SULPHATE 7-WATER

 $ZnSO_4 \cdot 7H_2O = 287.54g/mol$ 

UN Class: 9 /UN3077 PG-III EC No.: 231-793-3 Danger  
 Cas No.: 7446-20-0 Index No.: 030-006-00-9  
 Hazard: H302 H318 H410  
 Precaution: P273 P280 P305+P351+P338 P501


Cat No.	Grade	Assay	Info.	Per
ESC56316		98%		500g

## ZINC CARBONATE BASIC (ZINC HYDROXIDE CARBONATE)

 $(ZnCO_3)_2 \cdot (Zn(OH)_2)_3 = 350.2g/mol$ 

UN Class: N/A EC No.: 226-076-7  
 Cas No.: 5263-02-5 Index No.: Not listed


Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56301		54%		500g

## ZINC SULPHIDE

 $ZnS = 97.46g/mol$ 

UN Class: N/A EC No.: 215-251-3 Warning  
 Cas No.: 1314-98-3 Index No.: Not listed  
 Hazard: Not considered hazardous  
 Precaution: No additional precautions required

Cat No.	Grade	Assay	Info.	Per
ESC56320		N/A		500g



# LABWARE



EduScience UK<sup>®</sup>



[www.eduscienceuk.com](http://www.eduscienceuk.com)

**We Contribute  
To Future Education**



# LAB WARE

- Glassware, Plasticsware
- Filtration
- Lab Essentials
- Measuring Instruments
- Accessories
- Appliances



**Call Us Today +44 (0)203 8685740**

**Test Tube**

Manufactured from boro 3.3 glass with fire polished rim , (pack of 100)

- ESL56324** Size : 10 X 75MM  
**ESL56325** Size : 12 X 75MM  
**ESL56326** Size : 15 X 125MM  
**ESL56327** Size : 18 X 150MM  
**ESL56328** Size : 25 X 150MM

**Test Tube**

Manufactured from boro 3.3 glass with rim , (pack of 100)

- ESL56332** Size : 10 X 75MM  
**ESL56333** Size : 12 X 75MM  
**ESL56334** Size : 16 X 125MM  
**ESL56335** Size : 18 X 150MM  
**ESL56336** Size : 25 X 150MM

**Test Tube Without Rim**

Manufactured from boro 3.3 glass without rim , (pack of 100)

- ESL56339** Size : 10 X 75MM  
**ESL56340** Size : 12 X 75MM  
**ESL56341** Size : 16 X 125MM  
**ESL56342** Size : 18 X 150MM  
**ESL56343** Size : 25 X 150MM

**Culture Tube Round Bottom**

With Screw Cap

- Tubes Round Bottom With Screw Thread and Teflon Line
- Made from ASTM E-438 Type-1 Class A, Boro 3.3 glass
- With Screw Thread and Teflon Liner
- Leakproof
- Comes with PP Screw Cap

- ESL56998** Size : 12 X 100MM 5 ml  
**ESL56999** Size : 16 X 100MM 10 ml  
**ESL57000** Size : 16 X 125MM 15ml  
**ESL57001** Size : 12 X 160MM 20ml

**Burette Class AS With PTFE Key Stopcock**

Clear glass ,with lot. Certificate ,tolerance: 0.05(Ml) division: 0.1

- ESL56348** Capacity: 25 ML  
**ESL56349** Capacity: 50 ML

**Culture Tube Round Bottom**

With Aluminum Stopper GL Thread W/ Aluminum Stopper GL Thread

**ESL56345**

**Burette Class B With PTFE Key Stopcock**

With amber graduation (economy model) with detachable PTFE key stopcock

- ESL56346** Capacity: 25 ML  
**ESL56347** Capacity: 50 ML

**Burette Class B With Detachable PTFE Key Stopcock**

With Amber graduation DIN ISO 385.

- ESL56351** Capacity: 25 ML  
**ESL56352** Capacity: 50 ML



**Burette Class B**

With Glass Key Stopcock  
Clear glass with amber graduation din ISO 385.

**ESL56359** Capacity: 25 ML

**ESL56360** Capacity: 50 ML

**Burette 50 ml Class B**

DIN ISO 385 ,BORO 3.3 with Pinch Clip  
0.10 ml

BORO 3.3 with Pinch Clip 0.10 ml

**ESL56350**

**Burette Class B**

With Needle Valve PTFE Stopcock  
With amber graduation DIN ISO 385.

**ESL56353** Capacity: 25 ML

**ESL56354** Capacity: 50 ML

**Burette Class As**

With PTFE Key Stopcock  
Un serialized, graduation interval 0.2ML, tolerance  $\pm 0.1$ ML

**ESL56362** Capacity: 25 ML

**ESL56363** Capacity: 50 ML

**ESL56364** Capacity: 100ML

**Burette Class As**

With Glass Key Stopcock  
Clear glass with amber graduation , with lot certificate , division 0.1,  
Tolerance 0.05(Ml)

**ESL56357** Capacity: 25 ML

**ESL56358** Capacity: 50 ML

**Pipette Volumetric Class AS**

One mark, with Lot. Certificate

**ESL56365** Capacity : 5 ML

**ESL56366** Capacity : 10 ML

**ESL56367** Capacity : 20 ML

**ESL56368** Capacity : 25 ML

**Pipette Volumetric**

Pipette bulb small, 5ml, (pack of 10)

**ESL56371**

**Pipette Graduated (Serological), Class B**

	Capacity	Subdivision	Tolerance	colour
<b>ESL56373</b>	2 ML,	0.1ML,	- 0.02ML	green
<b>ESL56374</b>	5 ML,	0.1ML,	- 0.02ML	Blue
<b>ESL56375</b>	10 ML,	0.1ML,	- 0.02ML	orange
<b>ESL56376</b>	25 ML,	0.1ML,	- 0.01ML	white



**Pipette Graduated, Class AS Capacity 0.1 ML**

Made of Borosilicate Glass AS, Color Coded, Amber Printing, Zero at the Top, Division 0.01 ML,

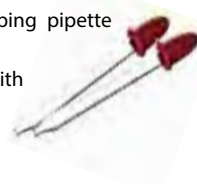
CAT NO	Capacity	CAT NO	Capacity
ESL56907	0.1ML,(0.01 ML)	ESL56914	5ML,(0.05 ML)
ESL56908	0.2ML,(0.01 ML)	ESL56915	5ML,(0.1 ML)
ESL56909	0.5ML,(0.01 ML)	ESL56916	10ML,(0.1 ML)
ESL56910	1ML,(0.01 ML)	ESL56917	20ML,(0.1 ML)
ESL56911	1ML,(0.1 ML)	ESL56918	25ML,(0.1 ML)
ESL56912	2ML,(0.01 ML)	ESL56919	25ML,(0.2 ML)
ESL56913	2ML,(0.10 ML)	ESL56920	50ML,(0.1 ML)

**Pipette Transfer**Disposable Graduated Transfer  
Pipette Non Sterile

ESL56378	Capacity : 1 ML,
ESL56379	Capacity : 2 ML,
ESL56380	Capacity : 3 ML,

**Pipette Transfer**Disposable Graduated Transfer Pipette Individually  
Wrapped in a peel off pouch-Sterile.

ESL56383	Capacity : 1 ML,
ESL56384	Capacity : 2 ML,
ESL56385	Capacity : 3 ML,

**Dropping Pipette With Rubber Teat**Single glass dropping pipette  
,made of neutral  
glass Supplied with  
latex teat  
Dropping Pipette  
measures 125 mm  
length Useful for dispensing  
liquid from test tubes

ESL56389

**Pipette Aid**

Pipette aid mad of polypropylene and silicon

ESL56390	Capacity : 2 ML,
ESL56391	Capacity : 5 ML,
ESL56392	Capacity : 10 ML,
ESL56393	Capacity : 25 ML,

**Pipette Stand Rotary Vertical**

Pipette stand rotary vertical pp, 94 places

ESL56395

**Pipette Washer PP**

Pipette washer PP

ESL56398

**Flask Erlenmeyer Narrow Neck**

Flask Erlenmeyer, Narrow neck These flasks are made from thick wall and have reinforced thick beaded rim. The flasks are produced to meet ASTM E 1404 TYPE 1 specifications. All the flasks are printed in white enamel.

	Capacity	Subdivision	graduation range
ESL56420	50 ML	10ML	20-50ML
ESL56421	100 ML	0M	20-100ML
ESL56422	250 ML	5ML	50-225ML
ESL56423	500 ML	50ML	100-500ML
ESL56424	1000 ML	50ML	250-1000ML

**Flask Erlenmeyer Narrow Neck**Erlenmeyer Flasks, Narrow Neck with  
graduation DIN ISO 1773 with Reinforced  
thick Rim to reduce chipping & breakage.

ESL56412	Capacity : 50 ML
ESL56413	Capacity : 100 ML
ESL56414	Capacity : 250 ML
ESL56415	Capacity : 500 ML
ESL56416	Capacity : 1000 ML

**Flask Erlenmeyer Narrow Neck  
250ML With Rubber Stopper**Erlenmeyer Flasks, Narrow Neck with graduation  
DIN ISO 1773 with Reinforced thick Rim to reduce  
chipping & breakage, Capacity 250ML

ESL56414SP







### Erlenmeyer Flask with Screw-Cap

Erlenmeyer Flask with Screw-Cap

CAT NO	Capacity	Standard joint	Red screw-cap
ESL56411/100	100 ML	(NS) : 25	heat resistance up to 180°C
ESL56411/250	250 ML	(NS) : 32	heat resistance up to 180°C
ESL56411/500	500 ML	(NS) : 32	heat resistance up to 180°C
ESL56411/1L	1000ML	(NS) : 32	heat resistance up to 180°C

### Erlenmeyer Flask with Screw-Cap

Erlenmeyer Flask with Screw-Cap

CAT NO	Capacity	Subdivision	GL
ESL56410/50	50 ML	10ML	40 IN 34/35
ESL56410/100	100 ML	20ML	40 IN 34/35
ESL56410/250	250 ML	50ML	52 IN 45/40
ESL56410/500	500 ML	100ML	52 IN 45/40
ESL56410/1L	1000 ML	200ML	52 IN 45/40



### Flask Erlenmeyer Round Bottom Wide Neck

Flask Round Bottom Wide neck, with beaded rim DIN 12347, DIN ISO 1773,

CAT NO	Capacity
ESL56428W	100 ML
ESL56429W	250 ML
ESL56430W	500 ML
ESL56431W	1000ML

### Flask Round Bottom Narrow Neck

Flask Round Bottom narrow neck, with beaded rim DIN 12347, DIN ISO 1773.

ESL56433	Capacity : 100 ML
ESL56434	Capacity : 250 ML
ESL56435	Capacity : 500 ML
ESL56436	Capacity : 1000 ML
ESL56437	Capacity : 2000 ML



### Flask Erlenmeyer Wide Neck

Flask Erlenmeyer, wide neck, These flasks are made from thick wall and have reinforced thick beaded rim. The flasks are produced to meet ASTM E 1404 TYPE 1 specifications. All the flasks are printed in white enamel.

ESL56427	Capacity : 50 ML
ESL56428	Capacity : 100 ML
ESL56429	Capacity : 250 ML
ESL56430	Capacity : 500 ML
ESL56431	Capacity : 1000 ML



### Flask Flat Bottom Narrow Neck

Flask Flat Bottom, narrow neck, with beaded rim DIN ISO 1773.

ESL56440	Capacity : 100 ML
ESL56441	Capacity : 250 ML
ESL56442	Capacity : 500 ML
ESL56443	Capacity : 1000 ML
ESL56444	Capacity : 2000 ML



### Flask Distillation With Side Arm

Distillation flask made of Boro silicate glass 3.3

ESL56455	Capacity : 100 ML
ESL56456	Capacity : 250 ML
ESL56457	Capacity : 500 ML
ESL56458	Capacity : 1000 ML
ESL56459	Capacity : 2000 ML



**Flask Volumetric Class A**

Volumetric Flask Class A , With Polypropylene stopper and Lot Certificate

ESL56448	Capacity : 50 ML	NS 12/21
ESL56449	Capacity : 100 ML	NS 14/23
ESL56450	Capacity : 250 ML	NS 14/23
ESL56451	Capacity : 500 ML	NS 19/26
ESL56452	Capacity : 1000 ML	NS 24/29
ESL56453	Capacity : 2000 ML	NS 29/32

**Flask Volumetric, Class B**

Volumetric flask , White Polypropylene stopper

ESL56400	Capacity : 5 ML	NS 10/19
ESL56401	Capacity : 10 ML	NS 10/19
ESL56402	Capacity : 25 ML	NS 10/19
ESL56403	Capacity : 50 ML	NS 12/21
ESL56404	Capacity : 100 ML	NS 14/23
ESL56405	Capacity : 250 ML	NS 14/23
ESL56406	Capacity : 500 ML	NS 19/26
ESL56407	Capacity : 1000 ML	NS 24/29
ESL56408	Capacity : 2000 ML	NS 29/32

**Mixing Cylinder , Boro 3.3 , With Plastic Stopper**

made of borosilicate glass 3.3 in compliance with DIN EN ISO 4788 , with hexagonal base and standard ground joint and poly stopper (PE)

ESL56978	Capacity : 25 ML	Class B blue graduation 25 : 0,5 ml NS 14/23
ESL56979	Capacity : 50 ML	Class B blue graduation 50 : 1 ml NS 19/26
ESL56980	Capacity : 100 ML	Class B blue graduation 100: 1 ml NS 24/29
ESL56981	Capacity : 250 ML	Class B blue graduation 250: 2 ml NS 29/32
ESL56982	Capacity : 500 ML	Class B blue graduation 500: 5 ml NS 34/35
ESL56983	Capacity : 1000 ML	Class B blue graduation 1000: 10 ml NS 45/40
ESL56984	Capacity : 2000 ML	Class B blue graduation 2000: 20 ml NS 45/40

**Measuring Cylinder , Class B, Hex Base**

Measuring Cylinder , Glass hexagonal base ,Class B,To contain (TC), Double metric , with protection collar.

ESL56500	Capacity : 25 ML	Graduation Interval 1ML, Tolerance -/ - 0.25ML
ESL56501	Capacity : 50 ML	Graduation Interval 1ML, Tolerance -/ - 0.25ML
ESL56502	Capacity : 100 ML	Graduation Interval 1ML, Tolerance -/ - 0.5ML
ESL56503	Capacity : 250 ML	Graduation Interval 1ML, Tolerance -/ - 1ML
ESL56504	Capacity : 500 ML	Graduation Interval 5ML, Tolerance -/ - 2ML

**Measuring Cylinder ,Class A, Round Base**

Measuring Cylinder , Round base ,Class A ,With LOT certificate.

Class A	Class B	Capacity
ESL56480	ESL56480B	5 ML
ESL56481	ESL56481B	10 ML
ESL56482	ESL56482B	25 ML
ESL56483	ESL56483B	50 ML
ESL56484	ESL56484B	100 ML
ESL56485	ESL56485B	250 ML
ESL56486	ESL56486B	500 ML
ESL56487	ESL56487B	1000 ML

**Measuring Cylinder, Class B, Hex Base**

Measuring Cylinder , Hexagonal base ,Class B,To contain (TC), Single metric , Low form .

ESL56470	Capacity : 10 ML
ESL56471	Capacity : 25 ML
ESL56472	Capacity : 50 ML
ESL56473	Capacity : 100 ML
ESL56474	Capacity : 250 ML
ESL56475	Capacity : 500 ML
ESL56476	Capacity : 1000 ML



**Measuring Cylinder, , Class B, Hex Base**

Measuring Cylinder Graduated Class B, Hex Base, with Double Metric Scale, Cylinders are made to meet ASTM E 1272 norms and are printed in double scale with white enamel. All the cylinders from 10ml to 2000ml comes with the bumper guard.



- ESL56492 Capacity : 10 ML
- ESL56493 Capacity : 25 ML
- ESL56494 Capacity : 50 ML
- ESL56495 Capacity : 100 ML
- ESL56496 Capacity : 250 ML
- ESL56497 Capacity : 500 ML
- ESL56498 Capacity : 1000 ML

**Measuring Cylinder, Class B , Plastic Base.**

Measuring Cylinder , Plastic base ,Class B,To contain (TC), Single metric , with protection collar.



- ESL56461 Capacity : 10 ML
- ESL56462 Capacity : 25 ML
- ESL56463 Capacity : 50 ML
- ESL56464 Capacity : 100 ML
- ESL56465 Capacity : 250 ML
- ESL56466 Capacity : 500 ML
- ESL56467 Capacity : 1000 ML

**Measuring Cylinder PP Class B**

measuring cylinders - Class B , Material : Polypropylene



- ESL56516 Capacity : 10 ML
- ESL56517 Capacity : 25 ML
- ESL56518 Capacity : 50 ML
- ESL56519 Capacity : 100 ML
- ESL56520 Capacity : 250 ML
- ESL56521 Capacity : 500 ML
- ESL56522 Capacity : 1000 ML
- ESL56523 Capacity : 2000 ML

**Measuring Cylinders- PP**

Measuring Cylinders - Autoclavable Graduations, Material : Polypropylene



- ESL56509 Capacity : 25 ML
- ESL56510 Capacity : 50 ML
- ESL56511 Capacity : 100 ML
- ESL56512 Capacity : 250 ML
- ESL56513 Capacity : 500 ML

**Measuring Cylinder PMP, Class A**

Measuring Cylinder Class A, Material : Polymethylpentene



- ESL56536 Capacity : 10 ML
- ESL56537 Capacity : 25 ML
- ESL56538 Capacity : 50 ML
- ESL56539 Capacity : 100 ML
- ESL56540 Capacity : 250 ML
- ESL56541 Capacity : 500 ML
- ESL56542 Capacity : 1000 ML
- ESL56543 Capacity : 2000 ML

**Measuring Cylinder PMP, Class B**

Measuring Cylinder Class B, Material : Polymethylpentene



- ESL56526 Capacity : 10 ML
- ESL56527 Capacity : 25 ML
- ESL56528 Capacity : 50 ML
- ESL56529 Capacity : 100 ML
- ESL56530 Capacity : 250 ML
- ESL56531 Capacity : 500 ML
- ESL56532 Capacity : 1000 ML
- ESL56533 Capacity : 2000 ML



**Beaker Low Form**

Beaker low form, With graduation and spot , Made of borosilicate glass 3.3 .

- ESL56544 Capacity : 10 ml
- ESL56545 Capacity : 25 ml
- ESL56546 Capacity : 50 ml
- ESL56547 Capacity : 100 ml
- ESL56548 Capacity : 250 ml
- ESL56549 Capacity : 400 ml
- ESL56550 Capacity : 600 ml
- ESL56551 Capacity : 1000 ml
- ESL56552 Capacity : 2000 ml
- ESL56553 Capacity : 3000 ml

**Beaker Low Form ,Heavy Duty**

Beaker low form, Heavy duty borosilicate glass 3.3 ,Tolled top rim , Double metric scales.

	Capacity	Graduation interval	graduation range
ESL56554	100 ml	10m	25-200ml
ESL56555	250 ml	25ml	25-200ml
ESL56556	400 ml	25ml	25-325ml
ESL56557	600 ml	50ml	50-500ml
ESL56558	1000 ml	100ml	100-1000ml
ESL56559	2000 ml	200ml	200-1400ml

**Beaker Tall Form**

Beaker Tall form, borosilicate glass 3.3 ,with graduation and spout.

- ESL56561 Capacity : 50 ML
- ESL56562 Capacity : 100 ML
- ESL56563 Capacity : 150 ML
- ESL56564 Capacity : 250 ML
- ESL56565 Capacity : 400 ML
- ESL56566 Capacity : 600 ML
- ESL56567 Capacity : 1000 ML

**Beaker (Euro Design) PP**

Autoclavable with Graduation, Material : Polypropylene

- ESL56581 Capacity : 100 ml
- ESL56582 Capacity : 250 ml
- ESL56583 Capacity : 500 ml
- ESL56584 Capacity : 1000 ml

**Beaker Low Form**

Beaker, low form, with slightly flared beaded top, double metric scale

	Capacity	Graduation interval	graduation range
ESL56572	50 ml	10ml	10-40ml
ESL56573	100 ml	10ml	20-80ml
ESL56574	250 ml	25ml	25-200ml
ESL56575	600 ml	50ml	50-500ml
ESL56576	1000 ml	50ml	100-1000ml
ESL56577	2000 ml	50ml	100-2000ml
ESL56578	5000 ml	50ml	100-5000ml





**Beaker Griffin Low Form PMP**

Beaker Griffin Low-form ,Material :Polymethylpentene sold in Packs.

<b>ESL56593</b>	Capacity : 50 ml	12 pcs/pack
<b>ESL56594</b>	Capacity : 100 ml	12 pcs/pack
<b>ESL56595</b>	Capacity : 250 ml	6 pcs/pack
<b>ESL56596</b>	Capacity : 600 ml	4 pcs/pack
<b>ESL56597</b>	Capacity : 1000 ml	3 pcs/pack
<b>ESL56598</b>	Capacity : 2000 ml	1 Pc
<b>ESL56599</b>	Capacity : 5000 ml	1 Pc
<b>ESL56600</b>	Capacity : 10 litre	1 Pc

**Beaker Griffin Low Form PP**

Beaker Griffin Low-form ,Polypropylene, supplied in Pk

<b>ESL56585</b>	Capacity : 50 ml	12 pcs/pack
<b>ESL56586</b>	Capacity : 100 ml	12 pcs/pack
<b>ESL56587</b>	Capacity : 250 ml	6 pcs/pack
<b>ESL56588</b>	Capacity : 600 ml	4 pcs/pack
<b>ESL56589</b>	Capacity : 1000 ml	3 pcs/pack
<b>ESL56590</b>	Capacity : 2000 ml	1 Pc
<b>ESL56591</b>	Capacity : 5000 ml	1 Pc
<b>ESL56592</b>	Capacity : 10 ltr	1 Pc

**Beaker With Handle Low Form PMP,**

Beaker Low-Form With Handle, Material : Polymethylpentene .

<b>ESL56612</b>	Capacity : 100 ML
<b>ESL56613</b>	Capacity : 250 ML
<b>ESL56614</b>	Capacity : 600 ML
<b>ESL56615</b>	Capacity : 1000 ML
<b>ESL56616</b>	Capacity : 2000 ML
<b>ESL56617</b>	Capacity : 5000 ML

**Beaker With Handle Low Form PP**

Beaker Low-Form With Handle ,Made of Polypropylene.

<b>ESL56603</b>	Capacity : 100 ml
<b>ESL56604</b>	Capacity : 250 ml
<b>ESL56605</b>	Capacity : 600 ml
<b>ESL56606</b>	Capacity : 1000 ml
<b>ESL56607</b>	Capacity : 2000 ml
<b>ESL56608</b>	Capacity : 5000 ml

**Pycnometer To Gay Lussac, Calibrated, Class A**

Pycnometer to gay lussac, calibrated, class a, 10ml, without certificate, with Teflon stopper

<b>ESL56630</b>	Capacity : 5 ML
<b>ESL56631</b>	Capacity : 10 ML
<b>ESL56632</b>	Capacity : 25 ML

**Winchester Bottle 2.5 Ltr**

Winchester Bottle

**ESL56636****Weighing Bottle Ground Squat Form 50X25mm**

Weighing Bottles, Ground In Stopper Manufactured from ASTM 438 TYPE 1 boro 3.3 glass

<b>ESL56633</b>	50x35mm Capacity : 20 ml
<b>ESL56634</b>	65x35mm Capacity : 25 ml
<b>ESL56635</b>	90x40mm Capacity : 60 ml





### Desiccators Vacuum With Stopcock Lid And Plate

Complies with IS 6128 Designed for use under vacuum Sturdy construction of borosilicate glass-ground glass flanges Plates are positioned on an internal ledge within the base Comes with glass stopcock at the top Generally used for drying of moist products, and for storage of moisture sensitive substances ,

**ESL56624** ID Ground Flange APP. 100 mm.

**ESL56625** ID Ground Flange APP. 150 mm.

**ESL56626** ID Ground Flange APP. 200 mm.

**ESL56627** ID Ground Flange APP. 250 mm.

**ESL56628** ID Ground Flange APP. 300 mm.



### Bottle Reagent Amber , Narrow Mouth

Bottles Reagent narrow mouth, manufactured from ASTM E 438 TYPE 1 BORO 3.3 GLASS in compliance to DIN ISO 4796 - 2 standards with standard ground joint & PP stopper, EN ISO 4796,

**ESL56638** Capacity : 50 ML N/S 19/26

**ESL56639** Capacity : 100 ML N/S 19/26

**ESL56640** Capacity : 250 ML N/S 19/26,

**ESL56641** Capacity : 500 ML N/S 19/26

**ESL56642** Capacity : 1000 ML N/S 19/26



### Bottle Reagent, Clear Glass

Bottles Reagent narrow mouth, manufactured from ASTM E 438 TYPE 1 boro 3.3 glass in compliance to DIN ISO 4796 - 2 standards with standard ground joint & PP stopper, EN ISO 479.

**ESL56660** Capacity : 100 ml N/S 14/23

**ESL56661** Capacity : 250 ml N/S 19/26

**ESL56662** Capacity : 500 ml N/S 24/29

**ESL56663** Capacity : 1000 ml N/S 24/29



### Dessicators With Lid Plain 150 Mm

Desiccator with Lid, Plain, Die pressed, Neutral Glass with Porcelain perforated plate.

**ESL56619** Diameter 100 MM

**ESL56620** Diameter 150 MM

**ESL56621** Diameter 200 MM

**ESL56622** Diameter 250 MM

**ESL56623** Diameter 300 MM



### Bottle Reagent Autoclavable Screw Cap And Pouring Ring

Bottles Reagent narrow mouth, manufactured from ASTM E 438 TYPE 1 BORO 3.3 GLASS in compliance to DIN ISO 4796 - 1 standards autoclavable screw cap and pouring ring, EN ISO 479.

**ESL56643** Capacity : 50 ML

**ESL56644** Capacity : 100 ML

**ESL56645** Capacity : 250 ML

**ESL56646** Capacity : 500 ML

**ESL56647** Capacity : 1000 ML

**ESL56648/2L** Capacity : 2000 ML

**ESL56648/5 L** Capacity : 5000 ML

**ESL56648/10 L** Capacity : 10000 ML



### Mixed Glassware - Class Pack

This mixed glassware class pack contains one each of the following:  
Beakers (50ml, 100ml, 250ml, 600ml, 1000ml),  
Measuring cylinders (10ml, 25ml, 50ml, 100ml, 250ml),  
Conical flasks (100ml, 250ml, 500ml),  
Plastic beakers (50ml, 100ml, 250ml, 500ml, 1000ml),  
Bulb pipettes (5ml, 10ml, 25ml), Glass funnel - 75mm diameter,  
Evaporating basin - 75ml. Crucible - 25ml

ESL56988



**Bottle Dropping Glass Pipette**

Pipette dropping bottle having a three piece pipette section comprising a glass dropper, high density polythene stopper with dust- proof head and vinyl teat. Both stopper and teat are highly resistant to chemical attack by acids and alkalis.

- ESL56656 Capacity : 30 ml  
 ESL56657 Capacity : 60 ml  
 ESL56658 Capacity : 120 ml  
 ESL56656EU Capacity : 30 ml  
 ESL56657EU Capacity : 50 ml  
 ESL56658EU Capacity : 100 ml

**Bottle Round Boston HDPE**

Narrow-Mouth Boston Round Bottle- Made of High density Polyethylene ,sold in packs

- |          |                    |            |
|----------|--------------------|------------|
| ESL56665 | Capacity : 4 ml    | 12pcs/pack |
| ESL56666 | Capacity : 8 ml    | 12pcs/pack |
| ESL56667 | Capacity : 15 ml   | 12pcs/pack |
| ESL56668 | Capacity : 30 ml   | 12pcs/pack |
| ESL56669 | Capacity : 60 ml   | 12pcs/pack |
| ESL56670 | Capacity : 125 ml  | 12pcs/pack |
| ESL56671 | Capacity : 250 ml  | 12pcs/pack |
| ESL56672 | Capacity : 500 ml  | 12pcs/pack |
| ESL56673 | Capacity : 1000 ml | 6pcs/pack  |

**Bottle Round Boston LDPE**

Narrow-Mouth Boston Round Bottle-Made of low density polyethylene ,sold in packs.

- |          |                    |            |
|----------|--------------------|------------|
| ESL56676 | Capacity : 8 ml    | 12pcs/pack |
| ESL56677 | Capacity : 15 ml   | 12pcs/pack |
| ESL56678 | Capacity : 30 ml   | 12pcs/pack |
| ESL56679 | Capacity : 60 ml   | 12pcs/pack |
| ESL56680 | Capacity : 125 ml  | 12pcs/pack |
| ESL56681 | Capacity : 250 ml  | 12pcs/pack |
| ESL56682 | Capacity : 500 ml  | 12pcs/pack |
| ESL56683 | Capacity : 1000 ml | 6pcs/pack  |

**Bottle Dropping Amber**

Amber glass dropping bottles with interchangeable stopper and rubber teat

- ESL56649 Capacity : 30 ML  
 ESL56650 Capacity : 60 ML  
 ESL56651 Capacity : 120 ML

**Bottle Dropping Clear**

Dropping Bottles, Manufactured from ASTM E 438 TYPE 1 BORO 3.3 GLASS fitted with ground in interchangeable stopper and rubber teat.

- ESL56652 Capacity : 30 ML  
 ESL56653 Capacity : 60 ML  
 ESL56654 Capacity : 120 ML

**Universal Bottle With Screw Cap**

Threaded glass bottle clear PP 28, with PP Screw Cap, Clear & Amber Glass

- |              | Clear Glass   | Amber Glass |                          |
|--------------|---------------|-------------|--------------------------|
| ESL56706W    | ESL56706WA    |             | 30 ml Wide Mouth         |
| ESL56706W/10 | ESL56706W/10A |             | 30 ml Wide Mouth PK/10   |
| ESL56706N/10 | ESL56706N/10A |             | 30 ml Narrow Mouth PK/10 |
| ESL56707     | ESL56707A     |             | 60 ml                    |
| ESL56708     | ESL56708A     |             | 100 ml                   |
| ESL56709     | ESL56709A     |             | 250 ml                   |
| ESL56716     | ESL56716A     |             | 500 ml                   |
| ESL56717     | ESL56717A     |             | 1000 ml                  |

**Spray Bottle**

Adjustable spray pattern. Pistol grip handle and bottle.

ESL56757



**Bottle Round Boston Amber-HDPE**

Amber Narrow-Mouth Boston Round Bottle-Made of High density Polyethylene ,sold in packs

<b>ESL56686</b>	Capacity : 4 ml	12pcs/pack
<b>ESL56687</b>	Capacity : 8 ml	12pcs/pack
<b>ESL56688</b>	Capacity : 15 ml	12pcs/pack
<b>ESL56689</b>	Capacity : 30 ml	12pcs/pack
<b>ESL56690</b>	Capacity : 60 ml	12pcs/pack
<b>ESL56691</b>	Capacity : 125 ml	12pcs/pack
<b>ESL56692</b>	Capacity : 250 ml	12pcs/pack
<b>ESL56693</b>	Capacity : 500 ml	12pcs/pack
<b>ESL56694</b>	Capacity : 1000 ml	6pcs/pack

**Bottle Round Boston PP**

Narrow-Mouth Boston Round Bottle-Made of Polypropylene , sold in packs.

<b>ESL56697</b>	Capacity : 4 ML	12pcs/pack
<b>ESL56698</b>	Capacity : 8 ML	12pcs/pack
<b>ESL56699</b>	Capacity : 15 ML	12pcs/pack
<b>ESL56700</b>	Capacity : 30 ML	12pcs/pack
<b>ESL56701</b>	Capacity : 60 ML	12pcs/pack
<b>ESL56702</b>	Capacity : 125 ML	12pcs/pack
<b>ESL56703</b>	Capacity : 250 ML	12pcs/pack
<b>ESL56704</b>	Capacity : 500 ML	12pcs/pack
<b>ESL56705</b>	Capacity : 1000 ML	6pcs/pack

**Bottle Round Boston LDPE**

Wide Mouth Boston Round Bottle-Made of High density Polyethylene ,sold in packs

<b>ESL56710</b>	Capacity : 30 ML	12pcs/pack
<b>ESL56711</b>	Capacity : 60 ML	12pcs/pack
<b>ESL56712</b>	Capacity : 125 ML	12pcs/pack
<b>ESL56713</b>	Capacity : 250 ML	12pcs/pack
<b>ESL56714</b>	Capacity : 500 ML	12pcs/pack
<b>ESL56715</b>	Capacity : 1000 ML	6pcs/pack

**Bottle Round Boston HDPE**

Wide-Mouth Boston Round Bottle-Made of low density polyethylene ,sold in packs.

<b>ESL56718</b>	Capacity : 30 ML	12pcs/pack
<b>ESL56719</b>	Capacity : 60 ML	12pcs/pack
<b>ESL56720</b>	Capacity : 125 ML	12pcs/pack
<b>ESL56721</b>	Capacity : 250 ML	12pcs/pack
<b>ESL56722</b>	Capacity : 500 ML	12pcs/pack
<b>ESL56723</b>	Capacity : 1000 ML	6pcs/pack

**Bottle Round Boston Amber-HDPE**

Amber Wide-Mouth Boston Round Bottle-Made of High density Polyethylene ,sold in packs

<b>ESL56726</b>	Capacity : 30 ML	12pcs/pack
<b>ESL56727</b>	Capacity : 60 ML	12pcs/pack
<b>ESL56728</b>	Capacity : 125 ML	12pcs/pack
<b>ESL56729</b>	Capacity : 250 ML	12pcs/pack
<b>ESL56730</b>	Capacity : 500 ML	12pcs/pack
<b>ESL56731</b>	Capacity : 1000 ML	6pcs/pack

**Bottle Round Boston PP**

Wide-Mouth Boston Round Bottle-Made of Polypropylene , sold in packs.

<b>ESL56734</b>	Capacity : 30 ML	12pcs/pack
<b>ESL56735</b>	Capacity : 60 ML	12pcs/pack
<b>ESL56736</b>	Capacity : 125 ML	12pcs/pack
<b>ESL56737</b>	Capacity : 250 ML	12pcs/pack
<b>ESL56738</b>	Capacity : 500 ML	12pcs/pack
<b>ESL56739</b>	Capacity : 1000 ML	6pcs/pack





**Bottle Dropping Dispensing -LDPE**

Drop-Dispenser Bottle Made of low density polyethylene,sold in packs

<b>ESL56742</b>	Capacity : 15 ML	12pcs/pack
<b>ESL56743</b>	Capacity : 30 ML	12pcs/pack
<b>ESL56744</b>	Capacity : 60 ML	12pcs/pack
<b>ESL56745</b>	Capacity : 125 ML	12pcs/pack
<b>ESL56746</b>	Capacity : 250 ML	6pcs/pack

**Carboy With Spigot LDPE**

Carboy with Spigot-Made of low density polyethylene.

<b>ESL56750</b>	Capacity : 10 LTR
<b>ESL56751</b>	Capacity : 20 LTR
<b>ESL56752</b>	Capacity : 50 LTR

**Wash Bottle 500ML**

Wash bottles 500ml , Material : polyethylene

**Washing up Bowl**

Material : P

ESL56758

ESL56992

**Plastic Container**

Made of Polypropylene and polyethylene Capacity 200 ML, Size : 5.5 X 7 X 9.5 cm

ESL57462

**Carboy Rectangular With Stopcock -HDPE**

Rectangular Carboy with Stopcock-Made of High density Polyethylene.

<b>ESL56754</b>	Capacity : 5 LTR
<b>ESL56755</b>	Capacity : 10 LTR
<b>ESL56756</b>	Capacity : 20 LTR

**Wash Bottle**

Narrow-Mouth Wash Bottle-White Cap,sold in packs

<b>ESL56760</b>	Capacity : 125 ml	6pcs/pack
<b>ESL56761</b>	Capacity : 250 ml	6pcs/pack
<b>ESL56762</b>	Capacity : 500 ml	6pcs/pack
<b>ESL56763</b>	Capacity : 1000 ml	4pcs/pack

**Wash Bottle Integral Side Spout**

Wash Bottle-Integral Side Spout 1,sold in Packs.

<b>ESL56774</b>	Capacity : 125 ML	6pcs/pack
<b>ESL56775</b>	Capacity : 250 ML	4pcs/pack
<b>ESL56776</b>	Capacity : 500 ML	4pcs/pack
<b>ESL56777</b>	Capacity : 750 ML	4pcs/pack

**Wash Bottle WM LDPE**

Wide Mouth Wash Bottle made of low density polyethylene ,Safety Labelled -Distilled Water ,sold in packs.

<b>ESL56767</b>	Capacity : 500 ML	6pcs/pack
<b>ESL56769</b>	Capacity : 1000 ML	1 Pc



**Crystallizing Dishes**

Dishes, Crystallizing, with Spout, DIN 12337

**ESL56779** Size : 70 X 40 MM**ESL56780** Size: 80 X 45 MM**ESL56781** Size : 95 X 55 MM**Petri Dish, Boro 3.3 Glass**

petri dish, manufactured from boro 3.3 glass which can withstand repeated autoclaving. od 100mm, height 17mm

**ESL56785** OD 100mm, HEIGHT 17mm**ESL56786** OD 100mm HEIGHT**ESL56787** OD 60mm, HEIGHT 20mm**Petri Dish**

Petri dish disposable

**ESL56788** Size : 100 mm x 14 mm**ESL56789** Size : 90 mm x 14 mm**ESL56790** Size : 90 mm x 14 mm

Polypropylene autoclavable

Radiation sterile vent-ps, 90mmx14mm

Radiation sterile non vented-ps, 90mmx14mm

**Thistle Funnel**

Thick walled glass thistle funnel 11.5" -total length, 9.5" stem length. Reservoir is 1.5" in height with a 1.5" diameter and an interior diameter of 1". The outer diameter of the stem is .5" and the inner diameter is 2/16". This is a great unit for adding liquid to a narrow necked flask or other similar piece of lab ware.

Made of Borosilicate glass has the following heat tolerances: Strain Point -515°C Annealing Point 565°C Softening Point 820°C

**ESL56819****Evaporating Dishes Ceramic, 70 ml**

(EURO DESIGN) 75 x 30 mm( ODXH) made of porcelain, maximum temperature up-to 1150°C

**ESL56782/10** 10 ML**ESL56782/15** 15 ML**ESL56782/25** 25 ML**ESL56782** 50 ML**ESL56783** 70 ML**ESL56784** 100 ML**ESL56784/125** 125 ML**Mortar & Pestle**

Pestle &amp; Mortar made of porcelain, maximum temperature up to 1150°C

**ESL56792** Size : 100 mm x 70 mm (dxh)**ESL56793** Size : 130 mm x 80mm (dxh)**ESL56794** Size : 160 mm x 90mm (dxh)**ESL56795** Size : 216 mm x 114mm (dxh)**Separating Funnel**

Separating funnel with glass stopcock and pp stopper Squibb shape

**ESL56807** Capacity : 125 ML NS : 29/32**ESL56808** Capacity : 250 ML NS : 29/32**ESL56809** Capacity : 500 ML NS : 29/32**ESL56810** Capacity : 1000 ML NS : 29/32

**Funnel PP,**

Funnel analytical made of polypropylene, with plain surfaces, short stem sold in packs

ESL56811	Diameter 35 mm	12 pcs/pack
ESL56812	Diameter 50 mm	13 pcs/pack
ESL56813	Diameter 55 mm	14 pcs/pack
ESL56814	Diameter 65 mm	15 pcs/pack
ESL56815	Diameter 75 mm	6 pcs/pack
ESL56816	Diameter 90 mm	7 pcs/pack
ESL56817	Diameter 100 mm	4 pcs/pack
ESL56818	Diameter 160 mm	2 pcs/pack

**Crucible Porcelain**

Made of porcelain with glazed high wall supplied with lid

ESL56827	Capacity : 15 ML
ESL56828	Capacity : 20 ML
ESL56829	Capacity : 25 ML
ESL56830	Capacity : 30 ML
ESL56831	Capacity : 40 ML

**Watch Glass**

Work well as lids for flasks and beakers, or holding small samples for observation under a low-power microscope.

ESL56841	DIA 50 MM
ESL56842	DIA 60 MM
ESL56843	DIA 75 MM
ESL56844	DIA 90 MM
ESL56845	DIA 100 MM
ESL56846	DIA 125 MM

**Crucible Porcelain**

Made of porcelain with glazed medium wall supplied with lid

ESL56821	Capacity : 15 ml
ESL56822	Capacity : 25 ml
ESL56823	Capacity : 50 ml
ESL56824	Capacity : 70 ml
ESL56825	Capacity : 100 ml

**Crucible Porcelain**

Made of porcelain with glazed low wall supplied with lid

ESL56834	Capacity : 15 ML
ESL56835	Capacity : 20 ML
ESL56836	Capacity : 25 ML
ESL56837	Capacity : 30 ML
ESL56838	Capacity : 40 ML

**Tube Delivery, Set Of 6**

Different shapes tubes mad of borosilicate glass, outside dia. 6 mm Set of 6.

ESL56849

**TUBE DELIVERY, SET OF 4**

Different shapes tubes mad of borosilicate glass, outside dia. 6 mm Set of 4. :1 - Short straight, 70 mm length1 - Long straight, 170 mm length1 - 90° bend arms, 60 mm and 160 mm length1 - 90° bend arms, 60 mm length

ESL56850



**Tiles Porcelain With 12 Cavities**

White, with 12 cavities 22mm diameter.

ESL56852

**Glass Stirring Rod**

Glass rod made of soda glass

ESL56854 Length 150 mm dia App. 6 mm

ESL56855 Length 200 mm dia App. 6 mm

ESL56856 Length 250 mm dia App. 6 mm

ESL56857 Length 3000 mm dia App. 6 mm

**Brush Beaker**

ESL56859 Nylon 400 mm long Stainless steel wire handle. Size 150 x 85 mm

ESL56860 Bristle Standard beaker brush on a wooden handle. 325mm total length, brush approximately 150mm x 75mm

**Brush Burette**

on stainless steel wire handle, for burette cap. 25ml, and 50 ML

ESL56862 Nylon For burette cap. 25ml, head dia 16mm, length 610mm

ESL56863 Nylon For burette cap. 50ml, head dia 19mm, length 760mm

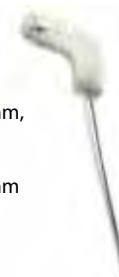
ESL56865 Bristle For burette cap. 25ml, head dia 16mm, length 610mm

ESL56866 Bristle for burette cap. 50ml, head dia 19mm, length 760mm

**Brush Flask**

ESL56868 Nylon For round bottom flask up-to 100 mm dia. on stainless steel wire handle. Overall length 330 mm,

ESL56869 Bristle For round bottom flask up-to 100 mm dia. on stainless steel wire handle. Overall length 330 mm

**Brush Test Tube**

With fan-shaped end, on stainless steel wire handle.

ESL56873 Nylon DIA 20 MM L 90 mm, total length 230 mm

ESL56874 Nylon DIA 35 MM L 100 mm, total length 280 mm

ESL56876 Bristle DIA 20 MM L 90 mm, total length 230 mm

ESL56877 Bristle DIA 35 MM L 100 mm, total length 280 mm

**Brush Pipette**

for pipettes and tubes from 8 - 12 mm dia

ESL56879 Nylon Head size 125 x 10 mm, overall length 650 mm

ESL56880 Bristle Head size 125 x 10 mm, overall length 650 mm

**Brush Cylinder**

With fan-shaped end on stainless steel wire handle. Suitable for Erlenmeyer flasks, cylinders and beakers

ESL56882 Nylon Total Length-300 mm, Brush length-110 mm, Brush dia.-40 mm

ESL56883 Bristle Total Length-450 mm, Brush length-150 mm, Brush dia.-75 mm







### Flask Filtration

Reduced pressure these special flasks serve as collecting vessel for the filtrate. Made of borosilicate glass 3.3 very good chemical resistance minimal thermal expansion high resistance to thermal shocks autoclavable

•• Erlenmeyer shape, with Glass gorse nozzle.

**ESL57004** Capacity : 100 ml

**ESL57005** Capacity : 250 ml

**ESL57006** Capacity : 500 ml

**ESL57007** Capacity : 1000 ml

**ESL57008** Capacity : 2000 ml

**ESL57009** Capacity : 3000 ml



### Funnel Analytical PP, 100Mm Long Stem

Funnels- long stem 100mm autoclavable material : polypropylene

**ESL56805**

### Funnel Boro Glass

Manufactured from ASTM E 438 TYPE 1 CLASS A BORO 3.3 GLASS. These funnels comply to ISO, DIN AND USP standards.

**ESL56796** Diameter 45 MM

**ESL56797** Diameter 55 MM

**ESL56798** Diameter 65 MM

**ESL56799** Diameter 70 MM

**ESL56800** Diameter 75 MM

**ESL56801** Diameter 80 MM

**ESL56802** Diameter 100 MM

**ESL56803** Diameter 150 MM



### Porcelain Buchner Funnel

Made pf High-quality ceramic material, strong and corrosion-resistant. used for filtration purposes. It consists of a flat, perforated porcelain plate (known as the Büchner plate) with a cylindrical funnel-like shape attached to it

	Funnels with Perforated Filter Disc	Tube Dia	Hieght	NO of per- forations
<b>ESL57010</b>	50 ml	14 mm	95 mm	19
<b>ESL57011</b>	120 ml	20 mm	120 mm	37
<b>ESL57012</b>	200 ml	24 mm	140 mm	61
<b>ESL57013</b>	400 ml	28 mm	170 mm	91
<b>ESL57014</b>	600 ml	32 mm	190 mm	127



### Chlorine Test Strip

**ESL57040** 5 TEST 0 - 0.5 - 1 - 3 - 5 mg/L Cl<sub>2</sub> 100 strips/Pk

**ESL57041** 20 TEST 0 - 0.5 - 1 - 3 - 5 - 10 - 20 mg/L Cl<sub>2</sub> 100 strips/Pk

**ESL57042** 300 TEST 0 - 25 - 50 - 100 - 200 - 300 mg/L Cl<sub>2</sub> 100 strips/pk

**ESL57043** 1000 TEST 0 - 50 - 100 - 250 - 500 - 1000 mg/L Cl<sub>2</sub> 100 strips/pk

### Filter Paper

Qualitative Analysis filter papers Low Ash content 0.07%(Acid wash treated) High wet strength Made of 100% cotton liners GRADE NO 1

**ESL57020** DIA 7 CM

**ESL57021** DIA 9 CM

**ESL57022** DIA 11 CM

**ESL57023** DIA 12.5 CM

**ESL57024** DIA 15 CM

**ESL57025** DIA 18 CM



### Filter Paper

Quantitative Analysis filter papers Low Ash content 0.07%(Acid wash treated) High wet strength Made of 100% cotton liners GRADE NO

**ESL57031** DIA 7 CM

**ESL57032** DIA 9 CM

**ESL57033** DIA 11 CM

**ESL57034** DIA 12.5 CM

**ESL57035** DIA 15 CM

**ESL57036** DIA 18 CM



## Stand Base A-Shaped

Used for stand rod holder.

Hole : 10 mm, without threads

Material : Cast iron Part of Reversible Pendulum.

**ESL57067** Side length 120 mm

**Dimension :** (L) 12.00 x (W) 12.00 x (H) 3.00 cm, **Weight :** 0.400 kg

**ESL57068** Side length 140 mm

**Dimension :** (L) 14.00 x (W) 14.00 x (H) 3.00 cm, **Weight :** 0.500 kg

**ESL57069** Side length 190 mm

**Dimension :** (L) 19.00 x (W) 19.00 x (H) 4.50 cm, **Weight :** 2.000 kg

**ESL57070** Side length 240 mm

**Dimension :** (L) 24.00 x (W) 24.00 x (H) 6.00 cm, **Weight :** 4.000 kg

**ESL57071** Side length 270 mm

**Dimension :** (L) 270.00 x (W) 26.00 x (H) 6.00 cm, **Weight :** 6.000 kg



## Stand Road

Used as pillars in some experiments. Material : Stainless steel solid Part of Mechanics Kit for Senior High School.

**ESL57073** DIA 10 X 100 mm,

**Dimension :** (L) 10.00 x (W) 1.00 x (H) 1.00 cm, **Weight :** 1.000 kg

**ESL57074** DIA 10 X 1500 mm

**Dimension :** (L) 150.00 x (W) 1.00 x (H) 1.00 cm, **Weight :** 0.915 kg

**ESL57075** DIA 10 X 500 mm

**Dimension :** (L) 50.00 x (W) 1.00 x (H) 1.00 cm, **Weight :** 0.200 kg

**ESL57076** DIA 9 X 500 mm

**Dimension :** M8 x 9 mm, Part of Stand Base and Rod, Steel plate

**ESL57077** DIA 10 X 1500 mm

**Dimension :** (L) 1.00 x (W) 1.00 x (H) 150.00 cm, **Weight :** 0.920 kg



## Base Retort

Brass dial head about 40mm dia., Divided and marked in 100 divisions, vertical scale 10-0-10mm, fitted on heavy brass disc, with 3 pointed legs, distance between legs 40mm.

**ESL57079** 16CM X 10CM (length x width)

**ESL57080** 20CM X 12.5CM (length x width)

**ESL57081** 25CM X 16CM (length x width)



## Steel Rod

A range of Steel rods to suit all Stand bases.

**ESL57082** 50Cm x 11mm (length x dia.)

**ESL57083** 60Cm x 11mm (length x dia.)

**ESL57084** 75Cm x 12mm (length x dia.)

**ESL57085** 100Cm x 12mm (length x dia.)



## Clamp Universal

Clamp for general use.

Size :

Total length : Dia 225 mm

Jaws opening : dia. 70 mm

Material : Aluminium die cast with cork sheet

Completed with spiral spring, butterfly nuts and screw

**Dimension :** (L) 22.00 x (W) 7.00 x (H) 3.00 cm

**Weight :** 0.170 kg



**ESL57107**

## Retort Ring With Boss-head

Open ring retort support with boss-head made of Nickel chrome plated steel

**ESL57109** Dia 60 mm

**ESL57110** Dia 80 mm

**ESL57111** Dia 100 mm



## Stand Set Base And Road , Steel Base

Stand Base and Rod, Steel Plate Uses as a tool for assembling laboratory equipment

Size of stand base: 210 x 140mm, thickness 4mm

Stand rod: Dia. 10 x 500mm

Material: Stand base steel plate, stand rod: stainless steel

Set **Consists of :** Square stand base Stand rod

**Dimension :** 51.60 (L) x 22.60 (W) x 3.80cm (H)

**Weight :** 1.426Kg

**ESL57087**

## Stand Set Base & Road , Steel Base

Stand Set Base & Road , Steel Base

**ESL57088**





ESL57098

### Burette Clamp

ESL57094	Single	Polypropylene .Suitable for all burette up-to 100ml.
ESL57095	Double	Polypropylene .Suitable for all burette up-to 100ml.
ESL57098	Advanced, single	Comprising a high strength alloy casting jaws. Suitable for all burettes upto 100ml.
ESL57099	Advanced, double	Comprising a high strength alloy casting jaws. Suitable for all burettes upto 100ml.



ESL57103

ESL57105

### Clamp Universal, Assorted

ESL57101	4 Finger Cork Lined	Used to hold objects at stative. Size : Grip range 20 - 50 mm, Material : Steel coated with Ni/Cr and paint, Equipped with spring and bolt fasteners, <b>Dimension</b> : (L) 30.00 x (W) 10.00 x (H) 7.50 cm, <b>Weight</b> : 0.180 KG
ESL57102	4 Finger Cork Lined With Bosshead	This universal retort stand clamp is made from aluminium and has 4 jaws. The jaws allow objects from 2 - 90 mm in diameter to be clamped securely. The design of the jaws ensures a firm grip at all angles of opening. The four interlocking jaws are cork lined. Overall length is 24 cm.
ESL57103	3 Finger With Bosshead	PVC coated die-cast jaw, with clamping to my-bar screw through swivels, mounted on 13.5 cm rod of dia. 8 mm jaw. Capacity 100mm and overall length 25 cm.
ESL57104	3 Finger, Swivel	Three Finger Clamp, Swivel used to hold object at stative rod Size: Grip of 2-70mm, Material: Zinc alloy with Ni/Cr plated Without coil spring, The holder can be swivelled and fingers coated with PVC, One end is equipped with clamps and fasteners for mounting on the stative rod, <b>Dimension</b> : 30.00 (L) x 10.00 (W) x 7.50cm (H)"
ESL57105	2 Prong Single Adjustable Universal With Boss-Head	This clamp is ideal for use with straight sides glassware and apparatus such as burette, tubes flask necks. The jaws are coated with non slip vinyl sleeve. Can hold objects of 8-30 mm dia. Overall length 22 cm.



ESL57114



ESL57116



ESL57117



ESL57115

### Boss Head

ESL57114	Cast alloy	For use with laboratory stands, this popular boss head is made of die caste alloy. It accepts rods up to 16mm in diameter at a right angle to one another. Metal thumbscrews with blue plastic heads allow for adjustment. Measures approximately 11.7 x 3 x 3 cm in size.
ESL57115	Square for rod	Threaded metal one piece clamping screws • Able to hold rods up to 15 mm in diameter • Holds rods orthogonal (90 degrees) to one another. • All metal constructions to carry heavy loads and prevent torque damage
ESL57116	Die caste	Threaded metal one piece clamping screws Able to hold rods up to 16 mm in diameter Holds rods orthogonal (90 degrees) to one another. All metal constructions to carry heavy loads and prevent torque damage
ESL57117	Heavy duty	Thicker than normal 7 mm threaded clamping screws Thicker casting to support more load Accepts up to 16 mm rods Made of high strength powder coated alloy All metal constructions to carry heavy loads and prevent torque damage





### Suspension Clamps

Used to suspend a thermometer over a hot plate or a specific heat specimen. Clamp holds items at a distance of 110mm from the support rod. The hook is adjustable and locks at any angle.

ESL57090



### Test Tube Stand Z Pattern - 200 X 125 X 75mm

Sturdy, corrosion-resistant (Z) pattern with three rows of holes. Stands can nest together for easy storage. Not suitable for use with solution containing mercury salts.

Size: 200 x 125 x 75mm

Five holes: 28mm diameter

Six holes: 19mm diameter

Eight holes: 13mm diameter

ESL57123

### Tong Beaker

Made of Stainless Steel with Coated Ends Rust free with superior quality Holds beakers from 50mL to 2000mL

ESL56891 Rubber lined jaw

ESL56892 Silicon lined jaw



### Tong Crucible Straight

General purpose straight tongs, with corrugated jaws, used for handling of hot apparatus. Steel Chrome Plated,

ESL56885 Length : 150 MM St. Steel

ESL56886 Length : 200 MM St. Steel



### Crucible Tongs With Bow

Crucible tongs with bow, General purpose tongs with bow and corrugated jaws used for handling hot apparatus.

ESL57118 Blackened steel 15CM length

ESL57119 Blackened steel 20CM length

ESL56888 St. Steel 15CM length

ESL56889 St. Steel 20CM length



### Tong-Beaker, With Rubber Sleeves Cover

Jaws covered with rubber sleeves, Overall length of tong 30cm approx. Made of stainless steel

ESL56895



### Tong Flask St. Steel Cork Lined Jaw

Stainless steel flask tongs with cork lined jaws. Fits flasks of any shape from 100-2000ml

ESL56894



### Thermometer Stand

Thermometer Stand Supports 18 mm thermometers. Metal stand with a foam rubber cushion baseplate to protect thermometer bulbs. Size 165 x 120 x 125 mm.

ESL57122



### Funnel Stand

Wooden, polished, with clamping screws. Rods are approx. 460 mm Length

ESL57125 Single Rod dia 17.5 mm.  
Single base size 200 x 110 mm.

ESL57126 Double Rod dia 16 mm.  
Double base size 290 x 110 mm

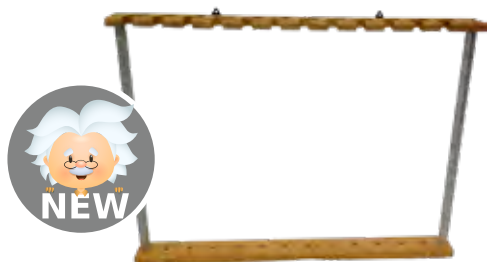




**Burette Stand**

Made of Hardwood  
burette rack made of hardwood - Stands 19.5" tall with single and Double arm to hold a burette. Base measures 7.75" (196.85 mm) x 4.25" (107.95mm)  
Smallest allowable diameter burette or tube is 10 mm diameter. with a threaded hole for the wooden support dowel.  
Black nylon thumb screws

ESL57096 Single  
ESL57097 Double

**Burette Rack Wooden**

natural wood burette rack is perfect for storing and protecting burets in the lab. Dimensions: 80 x 7.5 x 57.5 CM capacity : 12 burette up to 2 cm diameter , coming with wall mounting brackets

ESL57093

**TEST Tube Holder With Wooden Handel**

Brass with wooden handle clamp for tubes up to 45 mm diameter.

ESL57147

**Test Tube Rack Wooden,**

Test tube stand wooden, 2 tier, wooden support with dovetail joining and 12 holes in two rows.

ESL57144 12 X 22mm.  
ESL57145 12 X 25mm.

**Test Tube Holder Wooden**

Made of hard wood with steel spring , the jaws will accept tubes up to 20 mm diameter.

ESL57148

**Test Tube Rack Plastic**

Test Tube Rack, Plastic

Used for test tube storage 10mm dia. To 16mm dia.

Material: Plastic injection, knock-down system  
Consists of 12 holes 18mm dia.

**Dimension :** 18.00 (L) x 6.30 (W) x 10.50 cm (H)  
**Weight :** 0.100Kg

ESL57128

**Test Tube Half Rack**

Poly-wire blue re-enforced nylon

ESL57130 Dia ,13 MM  
ESL57131 Dia ,16 MM  
ESL57132 Dia ,20 MM  
ESL57133 Dia ,25 MM  
ESL57134 Dia ,30 MM

**Test Tube Rack**

Poly-wire blue-Re-enforced nylon

ESL57135 Dia ,13 MM  
ESL57136 Dia ,16 MM  
ESL57137 Dia ,20 MM  
ESL57138 Dia ,25 MM  
ESL57139 Dia ,30 MM

**Test Tube Rack**

Poly-grid test tube rack blue polypropylene

ESL57141 Dia ,16 MM  
ESL57142 Dia ,20 MM  
ESL57143 Dia ,25 MM

**Test Tube Stand (Wire Pattern )**

Test tube stand (wire pattern ) - 13mm x 90 Tubes

ESL57129

**Test Tube Holder-Wire Pattern**

Plated spring steel wire holder with finger grip. The jaws will accept tubes up to 40 mm diameter and their alignment maintained by a wire collar. Overall length 16 cm.

ESL57149

**Draining Basket**

A basket with wide net like structure, useful for draining different laboratory apparatus after washing.Repeatedly autoclaved.Material: Polypropylene

ESL57150





### Drying Rack,

Wall mounted corrosion free

ESL57151 20 PEGS

ESL57152 30 PEGS

ESL57153 48 Pegs ,coated wire

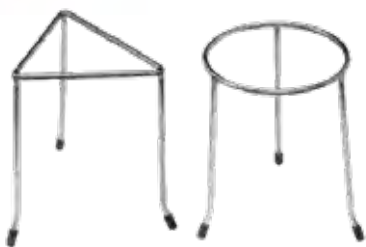
ESL57154 55 Pegs,coated wire

Made of abs material

Made of steel / polyester

Plastic coated steel , wire tip are PVC coated  
size 500 x 400 mm

Coated steel , wire tip are PVC coated  
size 650 x 360 mm



### Tripod Stand

all steel welded. Finished plated and legs are bent outward for stability.

ESL57155 Length of one side 12.5 cm Top triangular,Height 20cm.

ESL57156 Length of one side 15 cm Top triangular, Height 20cm.

ESL57158 dia 12.5 cm Top circular,Height 20cm.

ESL57159 dia 15 cm Top circular,Height 20cm.



### Cork Stopper Bark

Cat. No	Size	Top	Length	Bottom
ESL57166	000	6	13	4
ESL57167	00	8	13	5
ESL57168	0	10	13	7
ESL57169	1	11	16	8
ESL57170	2	13	17	9
ESL57171	3	14	19	10
ESL57172	4	16	20	11
ESL57173	5	17	22	12
ESL57174	6	19	24	13
ESL57175	7	21	25	15
ESL57176	8	22	27	17
ESL57177	9	24	29	18
ESL57178	10	25	31	20
ESL57179	11	27	31	21
ESL57180	12	29	31	22
ESL57181	13	30	31	24
ESL57182	14	32	31	25
ESL57183	15	33	31	27
ESL57184	16	35	38	27
ESL57185	17	36	38	30
ESL57186	18	38	38	31
ESL57187	19	40	38	33
ESL57188	20	41	32	34



### Basic Chemistry Bundle Kit

includes:

10 x Natural Gas Bunsen Burners

10 x Tripod stands (130 x 200mm)

10 x Bench Mats With Calcium Silicate (230 x 230mm)

10 x 65mm Triangles Pipeclay

10 x 150mm x 150mm Iron Gauze Mats

ESL57089



### Laboratory Jack

Laboratory jack made of Aluminium

ESL57161 10 X 10 CM

Max. Height : 18cm

ESL57162 15 X 15 CM

Max. Height : 25cm

ESL57163 20 X 20 CM

Max. Height : 28cm

### Cork Stopper Assorted PK

ESL57189





### Stopper Rubber

Made of Solid, superior quality rubber resistance to acid, alkali and ammonia, suitable for schools, colleges and Universities.

Cat. No	Top	Length	Bottom
ESL57195	7	16	5
ESL57196	9	16	6
ESL57197	10.5	20	8
ESL57198	11.5	20	9
ESL57199	12.5	20	10
ESL57200	14	24	11
ESL57201	16	24	13
ESL57202	18	24	15
ESL57203	20.5	26	27
ESL57204	21	26	18
ESL57205	22.5	28	19
ESL57206	24.5	28	21
ESL57207	26.5	28	23
ESL57208	28.5	28	25
ESL57209	31	32	27
ESL57210	31	32	29
ESL57211	36	35	31
ESL57212	38.5	38.5	33
ESL57213	45.5	36.5	35
ESL57214	42.5	40.5	38
ESL57215	49.5	40.5	40



### Stopper Rubber One Hole, Pk Of 50 Pcs

Assorted containing 7 pcs. Each of size 8, 9, 11, 13, 15mm bottom dia and 3 pcs. Each of 17, 21, 23, 25, 29mm bottom dia with one hole. Pack of 50 pcs. Any other sets can be supplied as per specifications.

ESL57219



### Stopper Rubber Two Holes, Pk Of 50 Pcs

Assorted containing 7 pcs. Each of size 8, 9, 11, 13, 15mm bottom dia and 3 pcs. each of 17, 21, 23, 25, 29mm bottom dia. With two holes. Pack of 50 pcs. Any other sets can be supplied as per specifications.

ESL57236



### Cork Borer Sharpener

Cork Borer Sharpener, Die-cast alloy. Suitable for all borers

ESL57279



### Cork Borer Set 6

Nickel-plated finish. Complete with cleaning rod having good grip and pipes of thick gauge. Set of 6 sizes 4-10mm

ESL57277



### Cork Borer Set 12

Nickel-plated finish. Complete with cleaning rod having good grip and pipes of thick gauge. Set of 12 sizes 4-18mm

ESL57278







### Stopper Rubber Silicon

Made of Solid, superior quality Silicon resistance to acid, alkali and ammonia, suitable for schools, colleges and Universities.

Cat. No	Top	Length	Bottom
ESL57253	7	16	5
ESL57254	9	16	6
ESL57255	10.5	20	8
ESL57256	11.5	20	9
ESL57257	12.5	20	10
ESL57258	14	24	11
ESL57259	16	24	13
ESL57260	18	24	15
ESL57261	20.5	26	17
ESL57262	21	26	18
ESL57263	22.5	22	19
ESL57264	24.5	28	20
ESL57265	26.5	28	23
ESL57266	28.5	28	25
ESL57267	31	32	27
ESL57268	31	32	29
ESL57269	36	35	31
ESL57270	38.5	38.5	33
ESL57271	45.5	36.5	35
ESL57272	42.5	40.5	38
ESL57273	49.5	40.5	40



### Glass Tube Cutter

Glass tubing cutter, up to an outer diameter of 40mm.

ESL57349



### Tubing Glass

Made of Borosilicate glass 3.3, light wall, length 0.5mtr approx.

ESL57283	Dia : 5mm
ESL57284	Dia : 6mm
ESL57285	Dia : 7mm
ESL57286	Dia : 8mm
ESL57287	Dia : 9mm
ESL57288	Dia : 10mm
ESL57289	Dia : 12mm
ESL57290	Dia : 14mm
ESL57291	Dia : 16mm
ESL57292	Dia : 18mm
ESL57293	Dia : 20mm
ESL57294	Dia : 25mm



### Tubing Clip

Tubing clip made of spring steel plated wire according to Mohr

ESL57351	Mohr	For tube dia up to 45 mm
ESL57352	Mohr	For tube dia up to 65 mm

Nickel plated, with projecting plate to prevent damage to tubing by end of screw, with hinged bottom bar for direct fitting and removed without access to ends of tube. Max. Opening 15 mm

ESL57353	Hoffmann	Max. Opening 15 mm
ESL57354	Hoffmann	Max. Opening 25 mm





**Tubing Connector**

Polypropylene, riffled end for rubber tubing. May be autoclaved. To fit tubing nominal bore.

**ESL57342** Y SHAPE 4 MM

**ESL57343** Y SHAPE 6 MM

**ESL57344** Y SHAPE 8 MM

**ESL57346** T SHAPE 4 MM

**ESL57347** T SHAPE 6 MM

**ESL57348** T SHAPE 8 MM

**Visking Tubing**

A cellulose based, selectively permeable material, in tube form, which can be used to demonstrate osmosis and dialysis separation techniques. 14mm diameter.

**ESL57356** 30 Mtr

**ESL57357** 5 Mtr

**Tubing Silicon**

Seamless, non toxic, translucent very flexible suitable for connecting to glass, Pack per meter.

- ESL57314** 2mm x 1mm (Bore x Wall Thickness).
- ESL57315** 3mm x 1mm (Bore x Wall Thickness).
- ESL57316** 3mm x 1.5mm (Bore x Wall Thickness).
- ESL57317** 4mm x 1mm (Bore x Wall Thickness).
- ESL57318** 4mm x 1.5mm (Bore x Wall Thickness).
- ESL57319** 5mm x 1mm (Bore x Wall Thickness).
- ESL57320** 5mm x 1.5mm (Bore x Wall Thickness).
- ESL57321** 6mm x 1mm (Bore x Wall Thickness).
- ESL57322** 6mm x 1.5mm (Bore x Wall Thickness).
- ESL57323** 6mm x 2mm (Bore x Wall Thickness).
- ESL57324** 6mm x 3mm (Bore x Wall Thickness).
- ESL57325** 7mm x 1.5mm (Bore x Wall Thickness).
- ESL57326** 7mm x 2mm (Bore x Wall Thickness).
- ESL57327** 8mm x 1.5mm (Bore x Wall Thickness).
- ESL57328** 8mm x 2mm (Bore x Wall Thickness).
- ESL57329** 8mm x 3mm (Bore x Wall Thickness).
- ESL57330** 9mm x 2mm (Bore x Wall Thickness).
- ESL57331** 10mm x 2mm (Bore x Wall Thickness).
- ESL57332** 10mm x 3mm (Bore x Wall Thickness).
- ESL57333** 12mm x 2mm (Bore x Wall Thickness).
- ESL57334** 12mm x 3.5mm (Bore x Wall Thickness).
- ESL57335** 14mm x 3mm (Bore x Wall Thickness).
- ESL57336** 14mm x 3mm (Bore x Wall Thickness).
- ESL57337** 16mm x 3mm (Bore x Wall Thickness).
- ESL57338** 25mm x 4mm (Bore x Wall Thickness).

**Tubing Connector U Shape Plastic**

Polypropylene, riffled end for rubber tubing. May be autoclaved. To fit tubing nominal bore.

**ESL57340** U SHAPE 6 MM

**ESL57341** U SHAPE 8 MM

**Tubing Connector U Shape Glass**

Glass, riffled end for rubber tubing. To fit tubing nominal bore.

**ESL57340G** U SHAPE 6 MM

**ESL57341G** U SHAPE 8 MM

**Viscometer Ostwald**

Suitable for transparent liquids manual measurement, foaming liquids, liquid mixture with highly volatile components, and high or low temperature measurements

**ESL57865**

**Tubing Rubber**

Soft quality, resistant to acid and alkalis. Pack of 10 meters. Orange Color.

- ESL57298** 3 mm x 1 mm (Bore x Wall Thickness).
- ESL57299** 4 mm x 1 mm (Bore x Wall Thickness).
- ESL57300** 5 mm x 1.5 mm (Bore x Wall Thickness).
- ESL57301** 6 mm x 1.5 mm (Bore x Wall Thickness).
- ESL57302** 7 mm x 1.5 mm (Bore x Wall Thickness).
- ESL57303** 8 mm x 1.5 mm (Bore x Wall Thickness).
- ESL57304** 9 mm x 2 mm (Bore x Wall Thickness).
- ESL57305** 10 mm x 2 mm (Bore x Wall Thickness).
- ESL57306** 12 mm x 2 mm (Bore x Wall Thickness).
- ESL57307** 15 mm x 3 mm (Bore x Wall Thickness).
- ESL57308** 16 mm x 3 mm (Bore x Wall Thickness).
- ESL57309** 19 mm x 3 mm (Bore x Wall Thickness).
- ESL57310** 20 mm x 3.5 mm (Bore x Wall Thickness).
- ESL57311** 25 mm x 3.5 mm (Bore x Wall Thickness).





### Bunsen Burner Nickel

Nickel plated burner tube with rotatable air regulator and cylindrical connector. Mounted in pressure die costed base.

ESL57362 For LPG gas

ESL57363 For natural gas



### Economy Bunsen Burner Adjustable

An excellent adjustable bunsen burner for use with natural gas. Heavy-duty cast iron base provides an extra measure of stability. The unit has a chrome-plated steel tube with air regulator and threaded needle valve. Junior high and high school level.

ESL57361



### Bunsen Burner

Piezo ignition, Adjustable flame, Refillable butane tank, Applications: Sterilizing, Welding, Heating, Technical Specification, Max. Temperature 1300 Fuel tanker capacity 45 g, Working time 60 Min, **Dimension** : (H x W x D) mm 92 x 115 x 79

ESL57367 PORTABLE

ESL57368 LAB TORCH

ESL57369 LAB PORTABLE



### Spirit Lamp Glass

Reference Capacity 100 (ml)

Outside Ø 70 (mm)

ESL57370

### Spirit Lamp

Methylated Spirit Burner

ESL57371



### Bench Mats

Made of cork, ideal for use with round bottom flask,

ESL57372 For flask capacity 50-100 ml

Diameter 80 mm

ESL57373 For flask capacity 250 ml

Diameter 100 mm

ESL57374 For flask capacity 500 ml

Diameter 120 mm

### Neoprene Bunsen Burner Hose,

Connect your burner to a fuel source.

ESL57359 Length 2 FT (.6M)

ESL57360 Length 3 FT (.9M)



### Bench Mats

Made from calcium silicate, ideal for use under Bunsen burner, well finished edges

ESL57375 Size : 150 x 150 mm

ESL57376 Size : 200 x 200 mm

ESL57377 Size : 230 x 230 mm

ESL57378 Size : 300 x 300 mm



### Wire Gauze With Ceramic Centre

Wire gauze with ceramic centres - high quality and extra strong

ESL57379 Size : 125 x 125 mm

ESL57380 Size : 150 x 150 mm



### Wooden Splints

Soft dry wood for general laboratory use. Size 5 x 140 mm.

ESL57386 Pack of 100

ESL57387 Pack of 1000



### Spatula With Spoon

One end flat and the other end spoon form, polished..

ESL57390 Total length 12.5 cm

ESL57391 Total length 15 cm

ESL57392 Total length 20 cm





### Trowel

Stainless steel, double ended with trowel-shaped scoops for handling large quantities of material. Length 175 mm and mean width 15 mm

ESL57396

### Pip-clay Triangle

On stout iron wire, pipe-clay stems. Pk/10

ESL57382 One side length 55 mm

ESL57383 One side length 65 mm

ESL57384 One side length 75 mm



### Spatula Chattaway

One end flat and the other end bent up, polished.

ESL57388 Total length 15 cm

ESL57389 Total length 20 cm



### Nuffield Raised Centre 14 cm

Raised centre section, one end flat and bent up and other end formed into a scoop. Stainless steel, length 14 cm

ESL57395



### Spatula Spoon PP

arrange of robust, general purpose PP spatulas - Excellent chemical resistance - Scraper plus spoon configuration - Suitable for use in food and beverage industry - Autoclavable.

ESL57404/15 Spatula Spoon PP 150MM

ESL57404/20 Spatula Spoon PP 200MM



### Measuring Scoop

EDU dual purpose scoop is designed to combine the function of a scoop, weigh boat, & funnel to make this product economically beneficial. These scoops have locking tabs that help to retain materials. These scoops can withstand powders, gels, and semi-solids

ESL57403/2 Measuring Scoop PP 2ML

ESL57403/5 Measuring Scoop PP 5ML

ESL57403/10 Measuring Scoop PP 10ML

ESL57403/25 Measuring Scoop PP 25ML

ESL57403/50 Measuring Scoop PP 50ML

ESL57403/100 Measuring Scoop PP 100ML

ESL57403/250 Measuring Scoop PP 250ML

ESL57403/500 Measuring Scoop PP 500ML

ESL57403/1000 Measuring Scoop PP 1000ML

### Stirring Bar

Dia 10Mm X H - 25 mm PP.

ESL57397



One end flat and the other end bent up, polished.

SKU	Size	Pack Size
ESL57397/138	8 x 13	10
ESL57397/168	8 x 16	10
ESL57397/198	8 x 19	10
ESL57397/228	8 x 22	10
ESL57397/258	8 x 25	10
ESL57397/308	8 x 30	10
ESL57397/388	8 x 38	10
ESL57397/418	8 x 41	10
ESL57397/518	8 x 51	5
ESL57397/648	8 x 64	5



### Stirring Rod PP

Stirring Rod

ESL57400



### Magnetic Retriever

Magnetic Retriever PTFE/Alnico V Magnet, 30cm, 2pcs/pack

ESL57398



### Deflagrating Spoon With Cap

Steel cup and rod held by cork in aluminium cap, length 35 cm and diameter of cap 90 mm cup 18 mm

ESL57402



### Wire Holder, Plastic Handle

Wire holder with plastic handle

ESL57408



### Tube Combustion

Borosilicate glass, open both ends, for oxidation and reduction of chemical substances. Length 30 cm.

ESL57410 OD 24 mm, Bore 20 mm

ESL57411 OD 22mm, Bore 17mm

ESL57412 OD 17mm, Bore 11mm



### Tube Combustion, Borosilicate Glass

Borosilicate glass, for reduction of metal oxides with hydrogen. A small hole in the side of the lower end of the tube allows for escape of gas. Length 15 cm and dia. 2.5 cm.

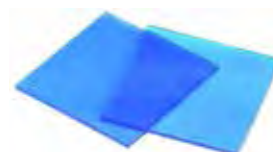
ESL57413

### Cobalt Glass

For potassium dry reaction

ESL57405 SIZE : 7.5 X 5 CM

ESL57406 SIZE : 5 X 2.5 CM







### Universal Indicator Paper PH 1-14

This test paper covers the range pH1 to 14. Box of 10 books each of 20 leaves, 65 x 10mm. 12 colour matches are printed on each book cover.

ESL57421



### Litmus Paper Red

10 books each with 20 strips.

Red Pk/200 Strips: Range pH 8-5, colour change.

ESL57415

### Litmus Paper Red Pk/100 strips

ESL57415/100

### Blue Pk/200 Strips

Range pH 8-5, colour change.

ESL57417

### Blue Litmus Paper Pk/100 strips

ESL57417/100

### Neutral Pk/200 Strips

Colour change to red or neutral.

ESL57419

### Neutral Pk/100 Strips

ESL57419/100



### Parafilm

No matter whether you wish to seal beakers, Erlenmeyer flasks, weighing bottles or graduated cylinders, the highly elastic and stretchable Parafilm® M laboratory film fits the opening of any vessel. It saves specimens from contamination or evaporating. Furthermore, it prevents fallen over flasks from spilling. Parafilm® M stretches up to 200 % of its original size and clings even around irregular shapes and surfaces.

ESL57435 Size : 100 mm x 38 mtr

ESL57436 Size : 100 mm x 75 mtr

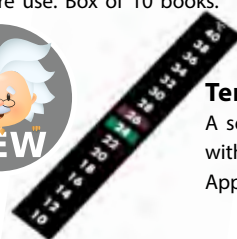
ESL57437 Size : 50 mm x 75 mtr



### Cobalt Chloride Test Paper

Heat sensitive, colour change blue to pink with moisture. Depending upon humidity, papers may be pink on receipt and will need drying before use. Box of 10 books.

ESL57425



### Temperature Strip

A self adhesive liquid crystal thermometer with a temperature range of 10°C to 40°C. Approx size: 130mm x 20mm

ESL57426



### Universal Indicator Paper PH 1-11

Range pH 1 to 11 in clear colour coded steps. Colour chart is on the side of the plastic dispenser. Box of 10 books with twenty strips. 5m of 6mm paper.

ESL57423

### G Clamp

- ESL57427 "Drop forged. Length 250 mm
- ESL57428 Drop forged. Length 200 mm
- ESL57429 Drop forged. Length 150 mm
- ESL57430 Drop forged. Length 125 mm
- ESL57431 Drop forged. Length 100 mm
- ESL57432 Drop forged. Length 75 mm
- ESL57433 Drop forged. Length 50 mm



### Weight Ring

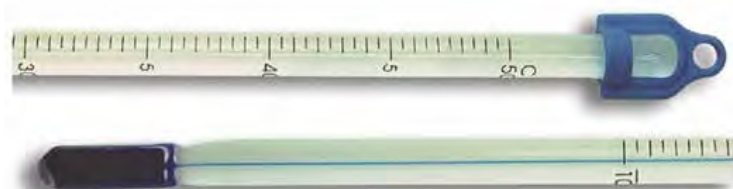
Made of cast iron PVC coated ring for stabilizing Erlenmeyer flask immersed into water .

ESL57440 For flask sizes: 100 to 500 ML , Weight 0.22 KG

ESL57441 For flask sizes: 250 to 1000 ML , Weight 0.45 KG







### Lab Thermometer

Product Material: Glass tube with Kerosene filling (except \* - special brown filling for high range ),

Product **Dimension** : 6.5mm dia x length

ESL57544	White bkd blue spirit	Range: -10 to 50 ° C, Division: 0.5 C, Accuracy: $\pm 0.5$ C @ 35 C
ESL57545	White bkd blue spirit	Range: -30 to 120 ° F, Division: 1.0 F, Accuracy: $\pm 0.2$ F @ 95 F
ESL57546	White bkd blue spirit	Range: -35 to 50 ° C, Division: 1.0 C, Accuracy: $\pm 1.0$ C @ 35 C
ESL57547	White bkd blue spirit	Range: -20 to 110 ° C & F, Division: 1.0 C & F, Accuracy: $\pm 1.0$ C @ 35 C
ESL57548	White bkd blue spirit	Range: -20 to 150 ° C & F, Division: 1.0 C & F, Accuracy: $\pm 1.0$ C @ 35 C
ESL57549	White bkd blue spirit	Range: 0 to 260 C&F, Division: 1.0 C&F, Accuracy: $\pm 2.0$ C @ 90 C
ESL57550	White bkd blue spirit	Range: 0 to 230 F, Division: 2.0 F, Accuracy: $\pm 0.2$ F @ 95 F
ESL57551	White bkd blue spirit	Range: -20 to 110 ° C, Division: 1.0 C, Accuracy: $\pm 1.0$ C @ 35 C
ESL57552	White bkd blue spirit	Range: -20 to 110°C, Division: 0.5 C, Accuracy: $\pm 1.0$ C @ 35 C
ESL57553	White bkd blue spirit	Range: 0 to 300 F, Division: 2.0 F, Accuracy: $\pm 0.2$ F @ 95 F
ESL57554	White bkd blue spirit	Range: -20 to 150 C, Division: 1.0 C, Accuracy: $\pm 1.0$ C @ 35 C
ESL57555	White bkd blue spirit	Range: 0 to 500 F, Division: 2.0 F, Accuracy: $\pm 0.2$ F @ 95 F
ESL57556	White bkd blue spirit	Range: -10 to 260 ° C, Division: 1.0C, Accuracy: $\pm 2.0$ C @ 90 C
ESL57557	White bkd blue spirit	Range: -10 to 210 ° C, Division: 1.0 C, Accuracy: $\pm 2.0$ C @ 90 C
ESL57558	White bkd brown spirit	Range: -10 to 33° C, Division: 2.0 C, Accuracy: $\pm 2.0$ C @ 90 C
ESL57559	White bkd brown spirit	Range: -10 to 300 ° C, Division: 1.0 C, Accuracy: $\pm 2.0$ C @ 90 C 4
ESL57560	White bkd brown spirit	Range: -10 to 360 ° C, Division: 2.0 C, Accuracy: $\pm 2.0$ C @ 90 C
ESL57561	White bkd blue spirit	Range: -1 to 51 ° C, Division: 0.1 C, Accuracy: $\pm 1.0$ C @ 35 C
ESL57562	White bkd blue spirit	Range: -1 to 51 ° C, Division: 0.2 C, Accuracy: $\pm 1.0$ C @ 35 C
ESL57563	White bkd blue spirit	Range: -1 to 101 ° C, Division: 0.2C, Accuracy: $\pm 1.0$ C @ 35 C



### Lab Thermometer

Product Material: Glass Tube: Kerosene filled

These spirit filled thermometers use specially selected filling materials covering temperatures down to -200c. Normal fillings are coloured red on a white back glass but alternative colours are available as shown. The -200 ° C range thermometers are filled with a colourless liquid. Thermometers normally supplied with the non roll cap with ring.

ESL57564	White bkd red spirit , Length 200MM	Range: -10 to 60 ° C, Division: 1.0 C , Accuracy: $\pm 1.5$ C @ 35 C
ESL57565	White bkd red spirit , Length 250MM	Range: -10 to 150 ° C, Division: 1.0 C, Accuracy: $\pm 1.0$ C @ 35 C
ESL57566	White bkd red spirit , Length 305 MM	Range: -10 to 110 ° C, Division: 1.0 C , Accuracy: $\pm 1.0$ C @ 35 C
ESL57567	White bkd blue spirit , Length 305MM	Range: -10 to 110 ° C, Division: 1.0 C, Accuracy: $\pm 1.0$ C @ 35 C
ESL57568	White bkd red spirit , Length 305MM	Range: -10 to 150 ° C, Division: 1.0 C, Accuracy: $\pm 1.0$ C @ 35 C
ESL57569	White bkd blue spirit , Length 305MM	Range: -10 to 200 ° C, Division: 1.0 C, Accuracy: $\pm 2.0$ C @ 90 C
ESL57570	White bkd red spirit , Length 305MM	Range: -10 to 110 ° C, Division: 1.0 C, Accuracy: $\pm 1.0$ C @ 35 C
ESL57571	White bkd red spirit , Length 305MM	Range: -10 to 110 ° C, Division: 0.5 C, Accuracy: $\pm 2.0$ C @ 90 C
ESL57572	White bkd red spirit , Length 205MM	Range: -10 to 150 ° C, Division: 1.0 C, Accuracy: $\pm 2.0$ C @ 35 C
ESL57573	White bkd red spirit , Length 205MM	Range: -10 to 110 ° C, Division: 1.0 C, Accuracy: $\pm 1.5$ C @ 35 C





## Lab Thermometer

This entry level range is now available in a choice of red, green or blue spirit filling and have Tri-top, moulded glass non-roll device to help prevent breakage. These thermometers are printed with a clear, easy-to-read scale making them particularly suitable for student use. Dia 76 mm, The initial TM Brand Thermometers are supplied as standard in protective PVC packaging in pack of 10 thermometers.

<b>ESL57574</b>	Red spirit, length 300 mm
<b>ESL57575</b>	Red spirit, length 200 mm
<b>ESL57576</b>	Red spirit, length 150 mm
<b>ESL57577</b>	Blue spirit, length 300 mm
<b>ESL57578</b>	Blue spirit, length 300 mm
<b>ESL57579</b>	Blue spirit, length 300 mm
<b>ESL57580</b>	Blue spirit, length 200 mm
<b>ESL57581</b>	Blue spirit, length 150 mm

Range: -10 to 50 °C, Division: 0.5 C, Accuracy: $\pm 0.5$ C @ 35 C
Range: -10 to 110 °C, Division: 1.0 C, Accuracy: $\pm 1.5$ C @ 35 C
Range: -10 to 110 °C, Division: 1.0 C, Accuracy: $\pm 2.0$ C @ 35 C
Range: -10 to 50 °C, Division: 0.5 C, Accuracy: $\pm 0.5$ C @ 35 C
Range: -10 to 110 °C, Division: 1.0 C, Accuracy: $\pm 1.5$ C @ 35 C
Range: -10 to 110 °C, Division: 1.0 C, Accuracy: $\pm 1.5$ C @ 35 C
Range: -10 to 110 °C, Division: 1.0 C, Accuracy: $\pm 1.5$ C @ 35 C
Range: -10 to 110 °C, Division: 1.0 C, Accuracy: $\pm 2.0$ C @ 35 C

## Lab Thermometer

Product Material: Glass Tube

The EduScience break-safe range of laboratory thermometers are encapsulated in PVC to contain any glass or filling material in the event of breakage.

Immersion: 76mm

<b>ESL57582</b>	Filling : Blue LoTox
<b>ESL57583</b>	Filling : Blue LoTox
<b>ESL57584</b>	Filling : Blue LoTox
<b>ESL57585</b>	Filling : Blue LoTox
<b>ESL57586</b>	Yellow Back with Red Spirit Filling

Range : -10 to 50 °C, Division: 0.5 C, Length: 305mm, Accuracy: $\pm 0.5$ C @ 35 C
Range : -10 to 50 °C, Division: 0.5, Length: 305mm, Accuracy: $\pm 0.5$ C @ 35 C
Range : -10 to 110 °C, Division: 0.5, Length: 155mm, Accuracy: $\pm 1.0$ C @ 35 C
Range : -20 to 110 °C, Division: 1.0 C, Length: 305mm, Accuracy: $\pm 1.0$ C @ 35 C
Range : -20 to 110 °C, Division: 1.0 C, Length: 305mm, Accuracy: $\pm 1.0$ C @ 35 C

## Lab Thermometer Investigation Science Kit



Blue plastic case enclosing a variety of instruments and a set of investigative science notes.  
 4x 150mm initial brand green filled thermometers  
 4x 200mm initial brand green filled thermometers  
 2 x small classroom thermometers  
 1 x dial type maximum/minimum thermometer  
 1 x soil temperature thermometer  
 1 x "Spot-check" clinical thermometer

**Boxed Dimensions :** 334 x 232 x 50mm

**ESL57588**

## Lab Thermometer Kit For Classroom

Blue plastic tray which fits into standard classroom storage systems. Includes a variety of laboratory thermometers and a set of classroom notes.

8x 150mm initial brand green filled thermometers  
 7x 300mm initial brand green filled thermometers  
 1 x 300mm un calibrated green filled thermometer

**Boxed Dimensions :** 334 x 232 x 50mm

**ESL57587**



## Lab Thermometer Classroom Wall Kit With Chart

Colourful 380mm plastic wall thermometer and chart for recording temperatures.

**Boxed Dimensions :** 365 x 287 x 10mm

**ESL57589**



## Hygrometer Masons

Simple form of psychrometer

Easy to measure the amount of water vapour

Measures difference between wet & dry temperature - Supplied complete with chart and instructions to determine %RH

Case: Polypropylene

Scale: Polystyrene

Reservoir: Polyethylene

Glass Tube: Kerosene filled



**ESE53838**

## Whirling Hygrometer

with folding handle

Uses the 'wet' & 'dry' principle to measure Relative Humidity (%RH)

Hygrometer designed to be rotated by hand

Environmentally friendly, blue spirit filled thermometer

Tubes Comes with protective pouch, calculator chart and 2pcs replacement wicks

Temperature range: -5 to +50°C Accuracy:  $\pm 1$ °C Divisions: 0.5°C



**ESE53840**

## Hygrometer Hair Type

For measuring of relative humidity in air 0-100 x 1% r.h. in plastic case.

**ESL57590**



## Hygrometer Thermo Hygrometer

For measuring of relative humidity and temperature both in room and air. Range -10 to 50 °C for thermometer and 0 to 100% for Hygrometer in plastic case.

**ESL57591**



## Thermometer Dial

For measuring temperature range -10 to 50 °C in plastic case.

**ESL57593**



## Wall Thermometer

Sustainable wood wall thermometers sourced from forests managed to strict environmental, social and economic standards

Temperature range: -20 to +50°C/-10 to +120°F

Divisions: 1°C/2°F - Accuracy: +/- 1.0°C @ 10°C

Product material: Wooden mounting with kerosene filled glass tube

Dimensions : 150 x 35 x 8mm - Weight: 29.5g

ESE53863



## Wall Room Thermometer Plastic

Plastic wall thermometer with clear, black printed scale on white moulding. Suitable for indoor and outdoor use, this thermometer is ideal for use in the home or garden.

Ideal for customer's own branding - click enquire now to submit a request

Suitable for indoor and outdoor use

Range: -20 to +50°C&F

ESE53860

## Ecology and weather kit - Standard Kit

Selection of weather watcher equipment

· Complete with weather register to record measurements

· Supplied in robust carry case with full operating instructions

Contents: · Mason's hygrometer · Gilt dial barometer

· Digital max min thermometer · 150mm wood wall thermometer

· Rainfall sprinkler measure · Weather register

Weight: 954g (including 505g case)

Dimensions: 320mm x 280mm x 119mm

ESE53833



## Thermometer Digital

K Type Thermometer DM6801A+ Features New type holster, anti-drop design Large LCD for easy reading Strong anti-magnetic and anti-interference performance Data hold function High resolution 0.1°C /°F High accuracy 0.2% Specifications Basic function Range Accuracy Temperature -50°C ~ 199.9°C (0.2%+1) -50°C ~ 1000°C (0.3%+2) 1000°C ~ 1300°C (0.5%+2) -50°F ~ 199.9°F (0.3%+2) -50°F ~ 1999°F (0.5%+2) -50°C ~ 199.9°C (0.2%+1) Special Function Low battery indication Approx. 7.5V Data hold Unit symbol display Function protection Anti-shock protection Input impedance 10MΩ Sampling rate 3 times/s Max. display 1999 LCD size 67x41mm Battery 9V 6F22 Power dissipation Quiescent current approx. 3.5mA General Information Meter color Body: dark grey Holster: Orange Meter weight 250g (including battery) Meter size 130x95x28mm Standard accessory Battery x1, manual x1, K type thermocouple x1

ESL57592



## Soil Thermometer

This type of soil thermometer is frequently used in the agriculture and horticulture industries to check temperatures of soil and compost. The soil thermometer has a green knob at the top to assist with the location of the thermometer after placement.

210mm thermometer to check temperature of soil and compost Green knob at top of aluminum case to assist with location

For use in agriculture and horticulture industries

ESE53870



## Rain Gauge Plastic

100mm diameter rain gauge - Measuring in inches & mm

Rainfall capacity up to 400ml - Supplied with rainfall charts - Replacements available

Range: 0 to 50mm / 0 to 2in

Divisions: 0.5mm / 0.05in

Product Material: Crystal Styrene

ESE53836

## Thermometer Digital Basic with probe -50 to +150°C/°F

Stainless steel probe thermometer. Protective case and pocket clip. Battery and full instructions included Temperature range: -50 to +150°C/°F

Ambient temperature: -10 to +50°C/°F Accuracy: -50 to -21°C: +/-4°C-20 to -1°C: +/-2°C0 to 100°C: +/-1°C101 to 150°C: +/-2°CResolution: 0.1°C Sampling rate: 1 second ; Battery:

LR44 x 1 pc Average battery life: Approx 1500 hours CE/ROHS/WEEE: Compliant

Hazard information (SDS): See brannan.co.uk for information LCD dimensions: 18mm x 8mm Probe dimensions: 125mm x ø3.75mm Product dimensions: Net: 195mm x 21mm x 21mm Gross: 230mm x 25mm x 25mm Product weight: Net: 21g (including battery) Display box: 10.5g Gross: 31.5g

ESL57620B



## Thermometer Digital Water resistant with Probe -40 to +200°C/°F

Stainless steel probe thermometer. Protective case and pocket clip. Water resistant to IP65. Battery and full instructions included Product specifications:

Temperature range: -40 to +200°C/°F Accuracy: -40 to -1°C: +/-2°C, 0 to 100°C: +/-1°C, 101 to 150°C: +/-2°C, 151 to 200°C: +/-3°C Resolution: 0.1°C Ingress protection: IP65 Battery:

LR754 x 1 pc Average battery life: Approx. 1500 hours CE/ROHS/WEEE: Compliant Hazard information (SDS): See brannan.co.uk for information LCD dimensions: 18mm x 8mm Probe dimensions: 120mm x ø3.5mm Product dimensions: Net: 200mm x 20mm x 15mm Gross: 205mm x 26mm x 25mm Product weight: Net: 20.5g Display box: 10.5g Gross: 31g

temperature range -50°C ~ 300°C / -58°F ~ 572°F Accuracy -50°C ~ 300°C: ±1°C / ±2°F; Other range: 2°C / ±2°F Resolution 0.1° Measuring speed 0.8s Power source 1.5V AAA battery" (including battery) Display box: 10.5g Gross: 31.5g

ESL57620WR

## Thermometer - Digital Hand Held with Probe

Temperature range -50°C ~ 300°C / -58°F ~ 572°F Accuracy -50°C ~ 300°C: ±1°C / ±2°F; Other range: 2°C / ±2°F Resolution 0.1° Measuring speed 0.8s Power source 1.5V AAA battery

ESL57620





## Max Min Thermometer Digital Classic Design

Large digital Max Min thermometer in a classic design with roof for indoor or outdoor use, this Max Min thermometer shows current temperatures and also maximum and minimum temperatures reached since the previous reset. A reliable digital Max Min thermometer complete with batteries included.

### Product Specifications :

Temperature Range : -20 to 50 ° C&F

Accuracy:  $\pm 1^{\circ}\text{C}$

IP Rating: IP 65

Battery: 1 x AAA

CE ,RoHS/WEE E: Compliant

**LCD Dimensions :** 16 x 52mm (current temperature display)

**Product Dimensions :** 203 x 100 x 30mm (when roof in horizontal position)

**Product Weight :** 135g



ESL57594

## Max Min Digital Heavy Duty , Green

Large Digital Max Min Thermometer

Suitable for outdoor and indoor use in a green casing. Triple display shows minimum, maximum and current temperature simultaneously. This digital Max Min thermometer can be easily switched from C to F by a push button and it is also easy to reset the Max Min temperature.

Temperature Range : -10 to 40 ° C&F

Display Resolution : 0.11C

Accuracy :  $\pm 1^{\circ}\text{C}$

Sampling Rate : Every 10 seconds

Water Resistant : To IP65

Battery usage : 1 x AA (Included)

CE , ROHS/WEEE: Approved.



ESL57597

## Max Min Thermometer Digital Waterproof Boxed Grey

Outdoor Digital Max Min Thermometer

Outdoor digital Max Min thermometer in a grey and white case with a large splash-proof display for outdoor and indoor use.

### Product Specifications :

Temperature Range : -40 to 70 ° C&F

Divisions : 0.1 ° C

Accuracy :  $\pm 1.0^{\circ}\text{C}$

Battery : 1.5 volt (AAA) or equivalent (Included)

CE,ROHS/WEEE : Approved



ESL57599

## Max Min Thermometer Digital Mini Lidded

Digital Max Min thermometer in white case with roof. Suitable for outdoor or indoor use. This Max Min thermometer features a triple display

which simultaneously shows minimum, maximum and the current temperature. Easy push button to reset the Max and Min temperatures and also comes complete with batteries included.

### Product Specifications :

Temperature Range : -10 to 50 ° C&F

Display Resolution : 0.1C

Accuracy :  $\pm 2^{\circ}\text{C}$

Sampling Rate : Every 10 seconds

Water Resistant : To IP65

Battery usage : 1 x AAA (Included)

CE ROHS/WEEE : Approved



ESL57595

## Max Min Thermometer Digital Heavy Duty , White

Large Max Min Digital Thermometer

Suitable for outdoor and indoor use in a white casing. Triple display shows minimum, maximum and current temperature simultaneously.

Temperature Range: -10 to 40 ° C&F

Display Resolution : 0.11 ° C

Accuracy :  $\pm 1^{\circ}\text{C}$

Sampling Rate : Every 10 seconds

Water Resistant : To IP65

Battery usage : 1 x AA (Included)

CE ,ROHS/WEEE : Approved.



ESL57596

## Max Min Thermo&Hygrometer Electronic Jumbo

Jumbo Digital Max Min Thermometer & Hygrometer

Jumbo digital Max Min thermometer featuring large displays for indoor temperature and humidity or outdoor temperature. Complete with 2 metre cable for the outdoor probe.

### Product Specifications :

Temperature Range: Indoor: -10 to 50 °C&F / Outdoor: -50 to 70 ° C&F

Humidity Range: 20 to 99% RH (when humidity 20%, display 10%RH directly)

Divisions: 0.1 ° C

Accuracy:  $\pm 1^{\circ}\text{C}$

Battery : 1.5 volt (AAA) or equivalent x 1 piece (Included)

CE ,ROHS/WEEE: Approved



ESL57598

## Max Min Thermometer Dial (Bimetallic)

Bimetallic Max Min Thermometer

This Bimetallic Max Min Thermometer traditional design is activated by a bi-metal temperature sensing element. The Max Min Thermometer is reset by turning the button in the centre of the dial. A simple instrument to record the highest and lowest temperatures day and night.

C and F.

### Product Specifications :

Thermometer Range : -20 to 50 ° C&F

Humidity Range : 0 to 100%RH

Thermometer Accuracy :  $\pm 1^{\circ}\text{C}$  between 0 and 30C, otherwise  $\pm 2^{\circ}\text{C}$

Humidity Accuracy :  $\pm 5\%$  RH between 40 and 80%RH, otherwise  $\pm 9\%$  RH



ESL57600







### Max-Min Thermometer Electronic

Digital Max Min Indoor Outdoor Thermometer

Digital Max Min indoor outdoor thermometer with white moulded case and two displays for outdoor and indoor temperature, each display has a maximum and minimum recording facility and can be displayed in °C or °F. This Max/Min thermometer comes complete with stand and 2.5m cable for the outdoor stainless steel probe and batteries are included. Temperature Range : Indoor: 0 to 50 °C&F / Outdoor: -50 to 70°C&F Divisions : 0.1 °C

Accuracy :  $\pm 2^{\circ}\text{C}$  between  $-20$  and  $0^{\circ}\text{C}$   $\pm 1^{\circ}\text{C}$  between  $0$  and  $50^{\circ}\text{C}$   $\pm 2^{\circ}\text{C}$  between  $50^{\circ}$  and  $70^{\circ}\text{C}$  otherwise  $\pm 3^{\circ}\text{C}$

Sampling Rate : 10 second

Battery : 1.5 volt (AAA) or equivalent x 2 pieces (Included)

CE,ROHS/WEEE : Approved

ESL57601



### Max Min Thermometer White Quick-Set

Quick Set Max Min thermometer

The Quick Set Max Min thermometers are a popular design in a white casing and blue printed temperature with a push button reset C and F.

#### Product Specifications :

Nominal Range :  $-35$  to  $50^{\circ}\text{C}$ &F

Accuracy :  $\pm 2.0^{\circ}\text{C}$

Tolerance between limbs :  $\pm 1.5^{\circ}\text{C}$

ESL57603



### Max Min Thermometer Heavy Duty, Green

Heavy Duty Max Min Thermometer

A classic Max Min thermometer design that has long been popular. This heavy duty Max Min thermometer has a clear and easy to read black temperature scale and is simple to reset with a push button.

C and F.

#### Product Specifications :

Nominal Range :  $-40$  to  $50^{\circ}\text{C}$ &F

Accuracy :  $\pm 2.0^{\circ}\text{C}$

Tolerance between limbs :  $\pm 1.5^{\circ}\text{C}$

ESL57605



### Max Min Thermometer Lidded Green Push Button

Euro Lid Max Min Thermometer

The Euro lidded Max Min thermometer has a modern design with a green scale on a white back in a moulded green plastic case and features a push button reset. A popular greenhouse Max Min thermometer which is used around the world.

#### Product Specifications :

Nominal Range :  $-35$  to  $50^{\circ}\text{C}$ &F

Accuracy :  $\pm 2.0^{\circ}\text{C}$

Tolerance between limbs :  $\pm 1.5^{\circ}\text{C}$

ESL57602



### Max Min Thermometer White Magnet Re-Set

The Magnet Reset Max Min Thermometer has a modern design with blue coloured scale in moulded white plastic complete with resetting magnet. These Max Min thermometers use a patented blue coloured liquid to replace the mercury but retain the ease of operation of the mercury instruments. °C & °F.

#### Product Specifications :

Nominal Range :  $-35$  to  $50^{\circ}\text{C}$ &F

Accuracy :  $\pm 2.0^{\circ}\text{C}$

Tolerance between limbs :  $\pm 1.5^{\circ}\text{C}$

ESL57604



### Max Min Thermometer cream Quick-set

Quick Set Max Min thermometer

The Quick Set Max Min thermometers have a popular design and come in a cream moulding with black printed temperature scale. Our low cost Max Min thermometer model ideal for the greenhouse which has a push button resetting device.

C and F.

#### Product Specifications :

Nominal Range :  $-35$  to  $50^{\circ}\text{C}$ &F

Accuracy :  $\pm 2.0^{\circ}\text{C}$

Tolerance between limb s :  $\pm 1.5^{\circ}\text{C}$

ESL57606





## Thermometer Infrared Hand Held

### Product Features

Built-in laser pointer Over range indication  
Large backlit LCD Data hold and power off function

### Product Specifications

Optical Resolution (D:S): 13:1  
Emissivity: Fixed at 0.95  
Response Time: <500ms  
Response Wavelength: 8 to 14mm  
Basic Accuracy:  $\pm 2\%$ ,  $\pm 2^\circ\text{C}$  /  $4^\circ\text{F}$   
Resolution:  $0.1^\circ\text{C}/^\circ\text{F}$   
Operating Conditions: 0 to  $50^\circ\text{C}$  <95%RH (non-condensing)  
Storage Conditions:  $-20$  to  $70^\circ\text{C}$  <80%RH  
Diode Laser: Output <1mW, Wavelength 630 to 670, class II  
Battery: 1 x 9V (included)  
CE & RoHS/WEEE: Compliant

**Product Dimensions :** Packaged: 228 x 133 x 60mm

Unpackaged: 155.5 x 98.8 x 27.5mm

**LCD Dimensions :** 26.5 x 25.6mm

-50 to  $550^\circ\text{C}$  (-58 to  $1022^\circ\text{F}$ ) - 38/702/0

ESL57612

-50 to  $350^\circ\text{C}$  (-58 to  $662^\circ\text{F}$ ) - 38/701/0

ESL57613

## Thermometer Infrared Compact Hand Held

### Product Features

Built-in laser pointer Over range indication Large backlit LCD Data hold and power off function

### Product Specifications :

Optical Resolution (D:S): 12:1  
Emissivity: Fixed at 0.95  
Response Time: <500ms  
Response Wavelength: 8 to 14mm  
Basic Accuracy:  $\pm 2\%$ ,  $\pm 2^\circ\text{C}$  /  $4^\circ\text{F}$   
Resolution:  $0.1^\circ\text{C}/^\circ\text{F}$   
Operating Conditions: 0 to  $50^\circ\text{C}$  <95%RH (non-condensing)  
Storage Conditions:  $-20$  to  $70^\circ\text{C}$  <80%RH  
Diode Laser: Output <1mW, Wavelength 630 to 670, class II  
Battery: 1 x 9V (included)  
CE RoHS / WEEE: Compliant

**LCD Dimensions :** 24.5 x 25mm

**Product Dimensions :** Packaged: 228 x 133 x 60mm

Unpackaged: 134 x 89 x 36mm

-50 to  $800^\circ\text{C}$  (-58 to  $1472^\circ\text{F}$ )

ESL57608

-50 to  $500^\circ\text{C}$  (-58 to  $932^\circ\text{F}$ )

ESL57609



## Thermometer Infrared Dual Laser

### Product Features

Precise IR and K-Type input temperature measurement  
Built-in dual laser pointers REC datalogger function for 12 points  
Adjustable emissivity: 0.1 to  $1.0^\circ\text{F}$  selectable  
MAX/MIN/DIF/AVG record Large backlit LCD  
Trigger lock Adjustable High/Low alarm  
Automatic range selection, data hold and power off function  
Supplied in protective bag

### Product Specifications

Optical Resolution (D:S): 13:1  
Response Time: <250ms  
Response Wavelength: 8 to 14mm  
IR Basic Accuracy:  $-50$  to  $0^\circ\text{F}$ :  $\pm 4^\circ/7^\circ\text{F}$   
0 to  $500^\circ\text{F}$ :  $\pm 1.5\%$   $\pm 2^\circ/3.6^\circ\text{F}$   
Above  $500^\circ\text{F}$ :  $\pm 2\%$   $\pm 2^\circ/3.6^\circ\text{F}$   
K-Type Basic Accuracy:  $-50$  to  $1370^\circ\text{F}$ :  $\pm 1.5\%$   $\pm 1^\circ/1.8^\circ\text{F}$   
Emissivity: Adjustable 0.1 to 1.0  
Resolution:  $0.1^\circ\text{F}$   
Operating Conditions: 0 to  $50^\circ\text{C}$  <95%RH (non-condensing)  
Storage Conditions:  $-20$  to  $70^\circ\text{C}$  <80%RH  
Memory: Storage of 12 readings  
Response Time: 1 second  
Battery: 1 x 9V (included)  
CE & RoHS/WEEE: Compliant

**LCD Dimensions :** 35 x 35mm

**Product Dimensions :** Packaged: 250 x 125 x 65mm

Unpackaged: 192 x 97 x 59mm

-50 to  $1370^\circ\text{C}$  (-58 to  $2498^\circ\text{F}$ )

ESL57610

-50 to  $1050^\circ\text{C}$  (-58 to  $1922^\circ\text{F}$ )

ESL57611





### Thermometer Infrared Body Temperature

#### Body Temperature Thermometer

Non-contact and hygienic infrared body temperature thermometer specially designed to take the body temperature of a person regardless of room temperature. The body temperature thermometer has a fast response time allowing a greater number of measurements to be taken in a short time. Designed to eliminate the chance of cross-contamination, it is ideally suited for use in schools, business and other environments where a large number of people are coming into contact with one another.

#### Features

- Easy and safe
- Selectable C or F
- Set alarm value
- Selectable body or surface temperature
- Memorization of the last 32 measurements
- Supplied with battery, full instructions and protective bag
- Laser targeting
- Trigger lock
- Automatic data hold
- Backlit LCD display

#### Products Specifications

Measuring Range: In Body Mode: 32 to 42.5°C (90 to 108°F) - In Surface Temp Mode: 0 to 60°C (32 to 140°F)  
 Operating Temp: 10 to 40°C (50 to 104°F)  
 Storage Temp: 0 to 50°C (32 to 122°F)  
 Accuracy:  $\pm 0.3^{\circ}\text{C}$  (or  $0.54^{\circ}\text{F}$ )  
 Response Time: 0.5 second  
 Relative Humidity:  $\leq 85\%$   
 Emissivity: 0.95 fixed value  
 Measuring Distance: 5 - 15cm  
 Resolution:  $0.1^{\circ}\text{C}$  ( $0.1^{\circ}\text{F}$ )  
 Battery: 2 x AA (Supplied)

ESL57614



### Thermometer Infrared Forehead

#### Infrared Forehead Thermometer

#### Ease of Use

Taking measurements of forehead temperature is quick, simple and non-intrusive with this infrared forehead thermometer.

Can measure both forehead temperature and the surface temperature of object.

Measurements can be taken while the patient is asleep.

Stores up to 20 readings in the internal memory which helps track changes in the temperature of the patient.

Device will warn user if the temperature of the patient is too high or too low by way of a fever alarm.

#### Safe and Hygienic

Non contact measurements avoid the accumulation of bacteria, and reduce the need for cleaning and sterilisation of the forehead thermometer during normal use.

No danger from broken glass or swallowing the thermometer filling liquid (mercury or spirit).

Robust ergonomic design manufactured from tough engineering plastics.

More comfortable and convenient than anal and oral reading thermometers, especially for children.

#### Energy Efficient

The forehead thermometer will automatically switch off after 10 seconds of inactivity.

#### Details

Forehead Thermometer Temp. Mode: 32 to 42.2°C (89.6 to 108°F)

Milk Temp. Mode: 0 to 100°C (32 to 212°F)

#### Products Specifications

Temperature Measurement Range:

Forehead Temp. Mode: 32 to 42.2°C (89.6 to 108°F)

Milk Temp. Mode: 0 to 100°C (32 to 212°F)

Accuracy:  $\pm 0.2^{\circ}\text{C}$  ( $\pm 0.4^{\circ}\text{F}$ )

Response Time: 1 second

Battery: 2 x AAA (battery life approx 1000 operations)

CE, ROHS/WEEE: Approved

**Product Weight :** 119g

**Product Dimensions :** 143mm x 60mm x 50mm

ESL57615





## Thermometer Infrared Ear Thermometer

Infrared Digital Ear Thermometer

A quick and easy infrared ear thermometer suitable for all ages. The infrared ear thermometer with digital display and memory comes complete with protective bag and 20 X replacement probe covers. Especially suited with use with babies, young children and the elderly. Pack of 20 replacement probe covers also available.

### Product Specifications :

Measuring Temperature Range : 35.5 to 42°C°F

Displayed Temperature Range : 34 to 44°C°F

Operating Temperature Range : 16 to 35°C ( 60.8 to 95.0 ° F)

Operating Relative Humidity : 80%RH

Divisions : 0.1°C°F

Accuracy: /-0.2°C Between 35 and 42°C

( /-0.4°F between 95.9 and 107.6°F)

Battery : 2 x AAA (Supplied)

LCD Dimensions : 10mm x 20mm

Product Dimensions : 140mm x 70mm x 40mm

ESL57616



## Clinical Thermometer Digital Flexi-Head

Easy to use digital flexi-head thermometer suitable for all ages especially babies, young children and the elderly. This model is the waterproof flexible probe model, suitable for oral use. Packaged in a clear plastic case with full instructions

### Product Specifications :

Temperature Range: 32 to 42°C

Divisions: 0.1°C

Accuracy: /-0.1°C Between 35.5°C and 42°C, otherwise /-0.2°C

Response Time:\* Rectal: Approx 9 - 11 seconds

Axillary: Approx 23 - 29 seconds

Oral: 15 - 19 seconds

Battery: LR41 or equivalent x 1 piece (Included)

ESL57621



## Thermometer Digital Probe With Timer

Digital hand-held test thermometer with alarm function, twin displays, 1m cable and 235mm stainless steel probe. Featuring data hold and Max Min function. Includes battery, and hanger, stand and magnetic fixtures.

### Product Features:

Dual display for temperature and timer, Programmable high/low alarm, Wide measurement range, Maximum/Minimum temperature memory, Celsius and Fahrenheit interchangeable, Data hold function, 99 hour countdown timer, Timer setting memory

Timer elapse time display, Stainless steel probe, Wall mount keyhole, Magnetic attachment, Flip out desk stand

ESL57617



## Thermometer Digital Oral

Easy to use digital oral thermometer suitable for all ages especially babies, young children and the elderly. This oral thermometer is the standard rigid probe model, suitable for oral use. Packaged in a clear plastic case with full instructions and battery included.

### Product Specifications :

Temperature Range: 32 to 42°C

Ambient Temperature during use: 5 to 35°C (80% RH)

Storage Temperature : -25 to 55°C (95% RH)

Divisions : 0.1°C

Accuracy : /-0.1°C between 35.5 and 42°C, otherwise /-0.2°C

Battery : LR41 or equivalent x 1 piece (Included)

ESL57619







### Balance Triple Beam

Single top pan, low form, suspension. Three graduated beams with notches for positioning sliding masses. Spring loaded zero adjust and magnetic damping gives stability and accuracy. Weighing capacity 610g with accuracy of 0.1g, expandable to 2610g with the use of supplementary masses.

Stainless Steel Pan, 150mm Diameter

Supplementary Masses: 2 x 1000g 1 x 500g.

Three notched Weighing Beams: 10g x 0.1g, 100g x 10g, 500g x 100g

ESL57630



### Balance Four Beam Balance 310g

The maximum capacity is 311 grams and the readability is 0.01g. It is made of a high quality aluminum alloy, the knife is made of a high quality alloy and the bearing plane is of agate, with a stainless steel weighting pan and includes a built in platform to aid density determination by weighting samples in air and in water. It is widely used for schools and educational establishments, etc. QUADRUPLE BEAM BALANCE Capacity: 311g Front beam: 1x0.01g Second beam: 10x1g Third beam: 100x10g Last beam: 200x100g

ESL57631



### Balance ,Physics Balance 2 Pan, Hydrostatic

Hydrostatic Balance is useful for specific gravity experiments. Similar to analytical balance without any casing, but with one additional pan suspended through smaller frame. This pan has a hook underneath for suspending items in specific gravity experiments. Balance has detachable pans and is mounted on well-polished wooden base. Capacity 250g Sensitivity 5mg.

ESL57626



### Bathroom Scale Mechanical

Bath room scale mechanical measuring range 0 - 180 kg

ESL57692

### Bathroom Scale Digital

Bath room scale digital measuring range 0 - 180 kg

ESL57694



### Balance Table Top 2 Pan, Roberval, 2 Kg

Simple model, suitable for teaching, made of steel plate and pans are of metal. 2 kg

ESL57627



### Double Beam Balance

Utilizing a two-pan configuration rooted in the traditional Roberval balance concept, this equipment is frequently employed for comparative weighing purposes. It boasts a capacity of 2000 grams and features a platform measuring 15cm in size. Additionally, it comes equipped with individual weights of 100g, 200g, 500g, and 1000g

ESL57629



### Balance 2 Pan, Plastic

Designed specially for small students use. Made from not-toxic high quality plastic, with no sharp corners. The total balance comprises of only 6 components, which can be easily assembled and disassembled. Both of the weighing containers are of different colours and bucket shaped for use with either of liquids or solids and are washable. Since the buckets are pivoted, the objects can be placed even on the edge without affecting the accuracy of measurement. Includes a broad tip-resistant base sliding poise for easy zeroing and check rod for support of off-centre load. Capacity 2kg Readability 1g.

ESL57623



### Height & Weight Scale Basic

Height and weight scale, measuring range 0-200 kg

ESL57689



### Height & Weight Scale Advance

Height and weight scale, measuring range 0-200 kg

ESL57690





## Spring Balance

Newton Meters, robust plastic transparent body, overall length 285mm approx. with upper and lower suspension hooks, with zero adjustment, scales are both in grams and Newtons.

- ESP60047** Measuring : 100gm/1n, 1gm
- ESP60048** Measuring : 250gm/2.5N, 5gm
- ESP60049** Measuring : 500gm/5n, 10gm
- ESP6005** Measuring : 1kg/10n, 20gm
- ESP60051** Measuring : 2kg/20n, 40gm
- ESP60052** Measuring : 3kg/30n, 60gm
- ESP60053** Measuring : 5kg/50n, 100gm



## Spring Balance

force meter, Balance designed to work for mass and force activity. Dual calibrated in grams and Newtons.

- ESP60054** Measuring : 250gm/2.5N, 5gm
- ESP60055** Measuring : 500gm/5n, 10gm
- ESP60056** Measuring : 1kg/10n, 20gm
- ESP60057** Measuring : 2kg/20n, 40gm
- ESP60058** Measuring : 3kg/30n, 60gm
- ESP60059** Measuring : 5kg/50n, 100gm



## Weighing Boats

Plastic weighing boats/trays - pack of 50  
30ml capacity  
DIAMOND SHAPE

**ESL57659**



## Spring Balance

**PRECISION DYNAMOMETER**, The Precision Dynamometer is available in range of weight capacities and scales. They are incredible precise and are suitable for measuring weights, masses and forces. Each different weight capacity is colour coded for ease of identification. As well as offering a high level of precision, these dynamometer are also easy to read enabling accurate readings to be taken quickly and precisely.

- ESP60060** Measuring : 100gm/1n, 2gm
- ESP60061** Measuring : 250gm/2.5N, 5gm
- ESP60062** Measuring : 500gm/5n, 10gm
- ESP60063** Measuring : 1kg/10n, 20gm
- ESP60064** Measuring : 2kg/20n, 40gm
- ESP60065** Measuring : 3kg/30n, 60gm
- ESP60066** Measuring : 5kg/50n, 100gm

## Spring Balance

balance spring pocket size, moulded in plastic, reading scale on both sides.

- ESL57633** Measuring : 1.5 Kg, 25gm
- ESL57634** Measuring : 3 kg, 50gm
- ESL57635** Measuring : 6 kg, 100gm
- ESL57636** Measuring : 10 kg, 250gm



## Balance Digital- 600G/0.01G

XIlogger Digital Balance - 600g/0.01g

A superb digital balance for a competitive price. The XLE1054 offers multiple unit conversions, RS232 interface, parts counting, percentage weighing and dynamic weighing.

The unit has two backlit digital displays, one as seen above and a second at the rear so that the whole class may see the results displayed.

The XLE1054 may also be used to supplement the XIlogger data logging system. The XIlogger interface may be connected directly to the USB port of a computer running Excel and data is automatically imported and may be processed in a multitude of ways.

The balance comes complete with low voltage power adapter (It also operates on 6 x AA cells), wind shield, 500.00g calibration weight and full user instructions.

**ESL57663**





### Balance Digital Basic

High precision load cell. Rugged Plastic Housing. Big size Stainless Steel Platter. High contrast easy to read LCD display. Built-in rechargeable battery. Height adjustable feet. Full capacity subtraction. Stabilization time 1.5 seconds. Overload Protection.

Below Balance Weighing Facility. Checking Weighing, piece counting function. Can be contain bubble level. Pan size: 143 X 192mm

- ESL57664** Capacity : 500 G , Readability : 0.1 G
- ESL57665** Capacity : 1000 G , Readability : 0.1 G
- ESL57666** Capacity : 2000 G , Readability : 0.1 G
- ESL57668** Capacity : 5000 G , Readability : 0.1 G



### Balance Digital Basic

High precision load cell. Rugged Plastic Housing. Big size Stainless Steel Platter. High contrast easy to read LCD display. Built-in rechargeable battery. Height adjustable feet. Full capacity subtraction. Stabilization time 1.5 seconds. Overload Protection.

Below Balance Weighing Facility. Checking Weighing, piece counting function. Can be contain bubble level. Pan size: 128 X 157mm

- ESL57669** Capacity : 300 G , Readability : 0.01 G
- ESL57670** Capacity : 600 G , Readability : 0.01 G
- ESL57671** Capacity : 1000 G , Readability : 0.01 G
- ESL57672** Capacity : 2000 G , Readability : 0.01 G



### Balance Digital Precession

High precision load-cell, compact design. Full plastic housing. Stainless steel Platter. Super bright LCD display with back-light. Mains adapter supplied as standard. Height adjustable feet. Full Capacity subtraction. Simple 5 key panel for easy operation. Stabilization time 1.5 seconds. Overload Protection. Below Balance Weighing Facility. Selectable measure units, g,oz,ct. Checking Weighing, Piece counting function. CE approvals

- ESL57674** Capacity : 300 G , Readability : 0.1 G
- ESL57675** Capacity : 600 G , Readability : 0.1 G
- ESL57676** Capacity : 1000 G , Readability : 0.1 G
- ESL57677** Capacity : 2000 G , Readability : 0.1 G
- ESL57678** Capacity : 200 G , Readability : 0.01 G
- ESL57679** Capacity : 600 G , Readability : 0.01 G
- ESL57680** Capacity : 1000 G , Readability : 0.01 G
- ESL57681** Capacity : 2000 G , Readability : 0.01 G



### Balance Digital Analytical

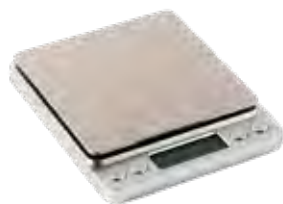
Electromagnetic Force Compensation Technology. Aluminium Alloy die cast base and ss platter. Super Bright LCD display with back-light. RS232C Interface Clear Glass Windshield as standard. Over load protection, Bubble Level Adjustment, Under hook

Full capacity Subtraction Multi Weighing unit conversation g/mg/ct/oz. Check Weighing, Parts counting, percentage weighing Universal power adaptor supplied as standard Certificated calibration weight supplied as standard. Internal calibration system CE approval

- ESL57683** Capacity : 300 G , Readability : 1 Mg
- ESL57684** Capacity : 600 G , Readability : 1 Mg
- ESL57685** Capacity : 1000 G , Readability : 1 Mg
- ESL57686** Capacity : 220 G , Readability : 0.1 Mg
- ESL57687** Capacity : 310 G , Readability : 0.1 Mg







## Economy Digital Balance 500 x 0.01g

Easy to use with 4 buttons. Fast operation thanks to quick self-calibration after switching on. Tare and reset function. Switch between grams, ounces, grains (measure of weight) and carats. Unit counter function. Automatic shutdown. Easy-to-read display with backlight, digit size: 10 mm. Works with batteries (2 x AAA) Contains two transparent measuring cups (can also be used as a protective cover). Specifications: Measuring plate: 100 x 100 mm

ESL57662

## Demo Balance Support

The sturdy notched support is available for use the lab. materials you already have to complete the apparatus. You will need a meter stick, mass hangers and masses and several knife edge clamps, available separately. Support is 18.5 cm in height and weight is 280 g approx.

ESP60077



## Balance Weight Physical



**ESP60079** Capacity 500Gm

Comprising 1 x 200gm, 2 x 100gm, 1 x 50gm, 1 x 20gm, 2 x 10gm, 1 x 5gm, 2 x 2gm, 1 x 1gm. Polished Brass, supplied with Wooden block, as illustrated.

**ESP60080** Capacity 1000Gm

Comprising 1 x 500gm, 1 x 200gm, 2 x 100gm, 1 x 50gm, 1 x 20gm, 2 x 10gm, 1 x 5gm, 2 x 2gm, 1 x 1gm. Polished Brass, supplied with Wooden block, as illustrated.

**ESP60081** Capacity 2000Gm

Comprising 1 x 1000gm, 1 x 500gm, 1 x 200gm, 2 x 100gm, 1 x 50gm, 1 x 20gm, 2 x 10gm, 1 x 5gm, 2 x 2gm, 1 x 1gm. Polished Brass, supplied with Wooden block, as illustrated.

## Weight Set Hooked Weight



Brass with hooks on both sides. Recessed bottoms to enable the weights to be hooked together. The bottom is flat when placed on a flat surface. Set of 9 weights. 10 - 1000g in wooden block.

ESP60082

## Weight Set Primary Weight

These weights are polished and lacquered Brass weight sets fitted in a durable hardwood storage box as illustrated. 1 each of 1gm, 5gm, 20gm, 100gm and two each of 2gm and 10gm



ESP60083

## Slotted Masses And Hanger

Slotted Masses and Hanger, EduScience Nickel plated Brass, mass in disc shape  
Material: EduScience Plated Brass Consists of: 1 x Masses hanger - 9 x Slotted Load

<b>ESP60085</b>	Total Weight 100 GR	9 x 10 g + hanger
<b>ESP60086</b>	Total Weight 200 GR	9 x 20 g + hanger
<b>ESP60087</b>	Total Weight 500 GR	9 x 50 g + hanger
<b>ESP60088</b>	Total Weight 1000 GR	9 x 100 g + hanger
<b>ESP60085B</b>	Total Weight 100 GR	9 x 10 g + hanger
<b>ESP60086B</b>	Total Weight 200 GR	9 x 20 g + hanger
<b>ESP60087B</b>	Total Weight 500 GR	9 x 50 g + hanger
<b>ESP60088B</b>	Total Weight 1000 GR	9 x 100 g + hanger



## Slotted Masses And Hanger 12 pc 200 GR BRASS

Slotted Masses and Hanger, EduScience Brass, mass in disc shape  
Material: EduScience Brass  
Consists of:

5g to 20g Mixed Masses and Hanger  
Set of 12 brass nicked plated slotted masses with hanger 50g hanger, nine masses of 20g, one of 10g and two of 5g.



ESP60086B12

## Weight Slotted Masses And Hanger,

Slotted set of masses and hanger. Set of 9 slotted masses, one hanger

This improved set comprises masses of Brass with slots, brass hangers with hook. The design of the slots ensures that the masses may be easily removed and replaced but will not fall off accidentally.

<b>ESP60089</b>	Total 100gm	Set of 9 slotted masses, one hanger each of 10gm.
<b>ESP60090</b>	Total 250gm	Set of 9 slotted masses, one hanger each of 25gm .
<b>ESP60091</b>	Total 1000gm	Set of 9 slotted masses, one hanger each of 100gm
<b>ESP60092</b>	Total 250gm	Set of 4 slotted masses, one hanger each of 50gm
<b>ESP60093</b>	Total 100gm	Set of one hanger 20gm, three slotted masses 20g one mass 10gm and two masses 5gm
<b>ESP60094</b>	Total 250gm.	Set of one hanger 50gm, nine slotted masses 20gm, one mass of 10gm and two masses of 5gm







### Weight Hooked Masses

Hooked masses cylindrical. Chromium plated with cylindrical weight with long hook. Loose or in wooden box.

- ESP60095 10gm each weight
- ESP60096 20gm each weight
- ESP60097 50gm each weight
- ESP60098 100gm each weight
- ESP60099 500gm each weight
- ESP60100 1000gm each weight
- ESP60101 200gm each weight



### Melting Point Tube (Pk/100)

Melting Point Tube

ESL57729



### Weight Masses Hexagonal With Lifting Ring

Hexagonal with lifting ring. Within international tolerance. Set of 6 (50gm, 100gm, 200gm, 500gm, 1kg 2kg)

ESP60103



### Weights Hooked Flat

Weights, Brass, with hooks on both sides. Set of 9 Pcs ,Capacity 500 gm ,comprises of 1 x 200gm, 2 x 100gm, 1 x 50gm, 1 x 20gm, 2 x 10gm and 2 x 5gm

ESP60106

### Melting Point Apparatus Digital

Melting point apparatus, 1°C resolution, with pack of 100 melting point tubes, closed at one end, 240V ,Digital Selection and Display of Temperature

High Accuracy

Easy to Operate with Plateau Facility

Number of Samples : 2

Temperature Range : Ambient to 300°C (572°F)

Temperature Accuracy :  $\pm 1.0^{\circ}\text{C}$  @  $20^{\circ}\text{C}$  (68°F),  $\pm 2.5^{\circ}\text{C}$  @  $300^{\circ}\text{C}$  (572°F)

Display : 3-digit LED (no display hold) | Display Resolution : 1°C

Ramp Rates :  $20^{\circ}\text{C}$  (68°F) per minute to plateau,  $2^{\circ}\text{C}$  (3.6°F) per minute to melt

**Dimensions :** 160 W x 220 D x 170 mm H (6.4 x 8.7 x 6.8")

**Weight :** 1.8 kg (4 lb) | Electrical Supply : 120/240V, 50/60 Hz, 75 W



ESL57725

### Melting Point Apparatus Analogue

Melting point apparatus, with thermometer and pack of 100 melting point tubes, open both ends, 240V, NIST Certificate, UK & European Power Cords , Number of Samples: Up to 3

Temperature Range : 50 to  $250^{\circ}\text{C}$  (122 to 482°F)

Heating Rate : 1 to  $10^{\circ}\text{C}$  (34 to 50°F) per minute

**Dimensions :** 370 W x 140 D x 110 mm H (15 x 5.5 x 4.3")

**Weight :** 1.7 kg (3.7 lb)

Electrical Supply : 120/240V, 50/60 Hz, 50 W

IP Rating : 40

Easy to Operate—Ideal for Educational Use

Supplied with Safe Spirit Filled Thermometer



ESL57726





## Timer , Dual Timer And Clock

The dual timer features two 24 hour countdown timers and also a 12/24 hour clock display. Counts in 1 second increments up to 24 hours. Complete with magnetic clip and stand. Batteries included.

### Product Specifications :

Timer Count: 1 second countdown/up to 24 hours  
12/24 hour clock

Time Accuracy Standard:  $\pm 60$  sec/month

Key Durability: Rubber key - 500,000 times (@200g  $\pm 20$ g)

Contact switch - 200 times (vertical press)

Battery : 1 x LR44 (Supplied)

Battery Life : Approx 150 days

CE , ROHS/WEEE: Approved

Operating Temperature : 0 to 40°C (95% RH)

Operating Voltage: 1.2V to 1.7V x 2

Current Consumption :10?A (Stand-by current)

25mA (average alarm current)

Electrostatic discharge ESD :  $\pm 8$ kV

**LCD Dimensions :** 12mm x 32mm

**Product Dimensions :** 50mm x 60mm x 12mm



ESL57740

## Timer , Four Way Timer And Clock

This device features 4 timers in one compact unit with 24 hour countdown and count up function. It also benefits from a large easy to read display and a 12/24 hour clock. Complete with stand and magnetic clip. Batteries included.

### Product Specifications :

Timer Count: 24 hour countdown and up  
12/24 hour clock

Time Accuracy Standard:  $\pm 60$  sec/month

Battery : 2 x LR44 (Included)

Battery Life : Approx 150 days

Operating Temperature : 0 to 40°C (95% RH)

Operating Voltage : 1.2V to 1.7V x 2

Key Durability : Rubber key - 500,000 times (@200g  $\pm 20$ g)

Contact switch - 200 times (vertical press)

CE,ROHS/WEEE: Approved

Current Consumption :10?A (Stand-by current)

25mA (average alarm current)

Electrostatic discharge ESD :  $\pm 8$ kV

Alarm Sound : 70dB

**LCD Dimensions :** 22mm x 50mm

**Product Dimensions :** 62mm x 75mm x 15mm

ESL57739



## Stopwatch Budget

Budget Stopwatch

1/100 second stopwatch with split timer function, calender and time. Comes complete with lanyard cord. Batteries included.

Features:

1/100 second stopwatch, Split timing function, Up to 23 hours, 59 minutes, 59 seconds, Clock shows hours, minutes, seconds, 12/24 hour selectable, Calendar shows day, month, year, Includes lanyard,

**Product Specifications :** Timer Count: 1/100 second

Battery: 1 x LR44 (Included), CE, ROHS/WEEE: Approved,

**LCD Dimensions :** 12mm x 27mm, Product

**Dimensions :** 80mm x 55mm x 17mm

ESL57733

## Stop Clock

Two sweep hands, one indicating seconds, the other recording minutes. Start-stop lever on the left hand side, zero reset lever on right hand side. Movement housed in metal case. Diameter of dial 100mm divided 0-60 x 1. Fitted in powder coated metal case.

ESP59918



## Timer Bench Top

**Product Specifications :**

Timing Period : Up to 9 hours / 59 minutes / 59 seconds

Time Accuracy Standard: Within  $\pm 1$  second

Resolution: 1/100 second for 30 minutes then 1 second thereafter

Product Material: ABS

Battery : 1 x AA (supplied)

Operating Temperature : 0 to 50°C

Storage Temperature : -10 to 60°C

CE,ROHS/WEEE: Approved

**LCD Dimensions :** 63.7 x 19.7mm

**Product Weight :** 197g

**Product Dimensions :** 100 x 97 x 70.5mm

ESL57735



## Timer Triple Timer And Clock

### Product Specifications :

Timer Count: 20 Hour x 3  
 Time Accuracy Standard :  $\pm 60$  sec/month  
 Key Durability: Rubber key - 500,000 times (@200g  $\pm 20$ g)  
 Contact switch - 200 times  
 Battery : 2 x LR44 (Included)  
 Battery Life : Approx 1 year  
 CE , ROHS/WEEE : Approved  
 Operating Temperature : 0 to 40°C (95% RH)  
 Operating Voltage : 1.2V to 1.7V  
 Current Consumption: 15A (stand-by current)  
 10mA (average alarm current)  
 Alarm Sound Level : 70dB Min 1ft from product  
 Electrostatic discharge ESD :  $\pm 8$ kV  
**LCD Dimensions :** 45mm x 41mm  
**Product Weight :** 60g  
**Product Dimensions :** 92mm x 69mm x 13mm



ESL57737



## Timer , Digital Kitchen Timer And Clock

Digital timer featuring 99 minutes 59 Seconds countdown count up timer with memory function, and 12 / 24 hour clock. Comes with hanger, stand and magnetic fixing. Battery included.

### Product Specifications :

Timer Count : 99 minutes / 59 seconds  
 Battery : 1 x AAA (Supplied)  
 CE , ROHS/WEEE : Approved  
 Operating Temperature : 0 to 40°C (95% RH)  
**LCD Dimensions :** 48mm x 20mm  
**Product Dimensions :** 67mm x 77mm x 27mm

ESL57741



## Stopwatch Analogue

Time measurement. One button have function to Start, Stop and Reset. In Stopwatch can be found freeze over round.

Size : Overall 50mm diameter

Thickness : 16mm

Scale : 0-60 x 0.2 sec., 0-30 x 1min

Material : Stainless steel

Mechanical (analogue) type timer

One button type for start button, reset and mechanic rotator spring

**Dimension :** 6.50 (L) x 6.50 (W) x 1.50cm (H)

**Weight :** 0.085 kg

ESL57745

## Timer Slimline

Budget Stopwatch

1/100 second stopwatch with split timer function, calender and time.

Comes complete with lanyard cord. Batteries included.

Features :

1/100 second stopwatch  
 Split timing function  
 Up to 23 hours, 59 minutes, 59 seconds  
 Clock shows hours, minutes, seconds  
 12/24 hour selectable  
 Calendar shows day, month, year  
 Includes lanyard

### Product Specifications :

Timer Count : 1/100 second  
 Battery : 1 x LR44 (Included)  
 CE , ROHS/WEEE : Approved  
**LCD Dimensions :** 12mm x 27mm  
**Product Dimensions :** 80mm x 55mm x 17mm



ESL57738

## Timer , Countdown Digital Large

Large Digital Countdown Timer

Large digital countdown timer covering 99 minutes 59 Seconds. The timer is supplied with stand, clip and magnetic fixing. All of our timers are supplied with batteries included.

### Product Specifications :

Timer Count: 99 minute / 59 second  
 Time Accuracy Standard:  $\pm 60$  sec/month (@ 25°C)  
 Battery : 1 x AAA (Supplied)  
 Battery Life : Approx 1 year  
 Operating Temperature : 0 to 40°C (95% RH)  
 Operating Voltage : 1.2 to 1.7V  
 Slide Switch Reliability : 5000 cycles  
 Key Durability: Rubber key - 500,000 times (@200g  $\pm 20$ g)  
 Contact switch - 200 times (vertical press)  
 Current Consumption :15 A (Stand-by current)  
 10mA (average alarm current)  
 Electrostatic discharge ESD :  $\pm 8$ kV  
 Alarm Sound : 70dB Min 1ft from product  
**LCD Dimensions :** 38mm x 64mm  
**Product Dimensions :** 70mm x 80mm x 20mm



ESL57742

## Timer , Countdown Digital Mini

Mini digital timer featuring 99 minutes 59 Seconds countdown and memory function. Complete with stand, clip and magnetic fixing. All of our timers are supplied with batteries included.

### Product Specifications :

Timer Count: 99 minute / 59 second countdown  
 Time Accuracy Standard:  $\pm 60$  sec/month  
 Key Durability: Rubber key - 100,000 times (@200g  $\pm 20$ g)  
 Contact switch - 5000 times (vertical press)  
 Battery : 1 x AAA (Supplied)  
 Battery Life : Approx 2 year  
 Operating Temperature : 0 to 40°C (95% RH)  
 Operating Voltage: 1.2 to 1.7V  
 Current Consumption :10A (Stand-by current)  
 &12mA (average alarm current)  
 Electrostatic discharge ESD :  $\pm 8$ kV  
**LCD Dimensions :** 38mm x 64mm  
**Product Dimensions :** 55mm x 55mm x 25mm



ESL57743



## ES Pocket Meter

- Replaceable combined probe design, meeting different applications
- Multi-color backlight display, easy to read data in different modes
- Data reading indicator and automatic data locking when the reading is stable
- Low voltage indication ensures timely battery replacement
- Buffers solutions: standards are selectable
- Auto shut-off time, customized backlight display time
- Supplied with standard solution, sample vials and lanyard for convenient field test
- Dual-control mode with mobile APP connection to achieve powerful data storage
- The mobile APP provides 4 types of measurement display for different situations, including Graph, Graph mode, Table mode, Dial mode, and General mode
- Protection class: IP67



Model			ESL57748	ESL57859	ESL57756	ESL57862	ESL57748B	ESL57859B	ESL57756B	ESL57862B
Parameter	pH/mV.°C		✓	-	-	✓	✓	-	-	✓
	mV(ORP).°C		✓	✓	-	✓	✓	✓	-	✓
	Cond/TDS/Sal./Res.°C		-	-	✓	✓	-	-	✓	✓
pH	Measurement range	(-2.00-16.00) pH	✓	-	-	✓	✓	-	-	✓
	Resolution	0.1/0.01	✓	-	-	✓	✓	-	-	✓
	Accuracy	±0.01pH±1digit	✓	-	-	✓	✓	-	-	✓
	Calibration points	1-, 2-, or 3-point	✓	-	-	✓	✓	-	-	✓
	ATC range	0~50°C (32-122°F)	✓	-	-	✓	✓	-	-	✓
ORP	Measurement range	(-1000.0+1000.0) mV	✓	✓	-	✓	✓	✓	-	✓
	Resolution	0.1/1	✓	✓	-	✓	✓	✓	-	✓
	Accuracy	±0.1%F.±1digit	✓	✓	-	✓	✓	✓	-	✓
Conductivity	Measurement range	0-2000.0mS/cm, auto-ranging : 0-19.999µS/cm; 20.0-199.9µS/cm; 200-1999µS/cm; 2.00-19.99mS/cm; 20.00-199.9mS/cm; 200.0-2000mS/cm K=10) Match test range: 0-2000mS/cm TDS : 0-100.0g/L (TDS factor adjustable) Resistivity:5.000Ω·cm-100.0MΩ·cm	-	-	✓	✓	-	-	✓	✓
	Resolution	0.01/0.1/1	-	-	✓	✓	-	-	✓	✓
	Accuracy	±1.0%±1digit	-	-	✓	✓	-	-	✓	✓
Temperature	Measurement range	(0.0-50.0) °C/(32.0-122.0)°F	✓	✓	✓	✓	✓	✓	✓	✓
	Accuracy	±0.2°C	✓	✓	✓	✓	✓	✓	✓	✓
APP	Calibration reminder		-	-	-	-	✓	✓	✓	✓
	Sample ID Classification		-	-	-	-	✓	✓	✓	✓
	Timing datalogging		-	-	-	-	✓	✓	✓	✓
	Operation guider		-	-	-	-	✓	✓	✓	✓
	Various display modes		-	-	-	-	✓	✓	✓	✓
Test Kit	Meter		✓	✓	✓	✓	✓	✓	✓	✓
	Probe(pre-installed)		ESL57748-S	ESL57859-S	ESL57756-S	ESL57862-S	ESL57748B-S	ESL57859B-S	ESL57756B-S	ESL57862B-S
	pH buffer solution: pH4.00/7.00/10.01, 30mL, one for each		✓	-	-	-	✓	-	-	-
	3.0 mol KCl pH/ORP soaking solution, 10mL, 1 bottle		✓	✓	-	✓	✓	✓	-	✓
	Sample Vials: 30mL		3	1	2	4	3	1	2	4
	Standard ORP solution 222 mV, 30mL		-	✓	-	-	-	✓	-	-
	Standard Cond solution 1413µS/12.88mS/cm 30mL, one for each		-	-	✓	✓	-	-	✓	✓
	pH buffer solution: pH4.00/7.00, 30mL, one for each		-	-	-	✓	-	-	-	✓
	4x1.5V AAA alkaline batteries (pre-installed)		✓	✓	✓	✓	✓	✓	✓	✓
	Lanyard		✓	✓	✓	✓	✓	✓	✓	✓
	Hard carrying case (L/W/H: 28.0×23.0×8.2cm)		✓	✓	✓	✓	✓	✓	✓	✓
	Operation manual		✓	✓	✓	✓	✓	✓	✓	✓







### PH Meter Pen Type

The most cost effective pH tester, widely applied for general precision requirement in various water analytical situations.

The smallest and thinnest shape: 148×29×14mm. The diameter of the electrode: 10mm..

The best function: automatic calibration, automatic temperature compensation, automatic power off, low voltage alarm, pH electrode invalidation display, etc.

The easiest to use : single button operation.

The reliable structure design: meet IP57 waterproof, replaceable batteries, calibration solution, electrode soaking solution and standby batteries in a portable case.

The most cost-effective pen tester.

ESL57749



### PH Meter Pocket Type

Economy pH tester, meet general requirements, cost-effective.

Automatic calibration, no temperature compensation.

Low voltage alarm display.

10 minutes automatic shut-down.

Replaceable electrode configuration calibration solution.

IP 57 waterproof rating.

Measuring range : 0~14.0 pH

Resolution : 0.1 pH

Accuracy : ±0.1pH±1 digit

Temperature compensation : No

Automatic Calibration :

1 point calibration (7.00 pH)

Power :

2 AAA batteries, 1.5V × 2, more than 100 hours of continuous using

Size and weight : 39×25×176 mm/95g

ESL57747

### PH Meter Potable Hand-held

Portable advanced single measurement water quality meter

Smart electrode interchangeable water quality measurement with single input, multi-parameters readable. Easy operation, meter powered by six AAA batteries, receptacle device is built-in for tripod mountable enable to do long time monitoring purposes.

#### FEATURES :

Professional look design accurate portable meters with large LCD display, BNC connector.

All electrodes with BNC connector compatible to any other electrodes.

Hold function, low battery icon indicator, automatic power off in 15 minutes and may disable.

Built-in different temperature compensation selectable: PT100, PT1000 (pH electrode only), Thermistor 30K, 10K ohm.

RFS (Recover to Factory Setting) function is included.

3 points pH calibration: 4, 7, 10 (Adjustable). Calibration buffer solution are included with soaking solution.

Conductivity calibration points: 1413uS. Calibration solution is included.

Conductivity electrode may convert to TDS and Salinity concentration, adjustable conductivity to TDS conversion factor from 0.4 to 1.0. Three in one conductivity electrode (Cond. EC.TDS. Salinity measurement).

Conductivity cell constant (K) selectable: 0.1, 1.0, 10 (Selectable and adjustable).

DO 100% self-calibration is convenient and simple. Calibrated both Saturated DO/zero DO (Na2SO3 ) before shipment.

Compact DO electrodes supplied with 3M cable and membrane cap, electrolyte.

Galvanic electrodes do not require long warm up time as polarographic type electrodes. (Polarization is required about 10-215 minutes.)

Tripod receptacle mountable design for long time monitoring purposes.

All sensors are well calibrated before shipment. Warranty period is two years. Long life sensors

#### SUPPLIED :

Meter, Battery-AAA x 6 pcs, Operation manual, Electrodes, Black carrying case, pH buffer solution x 3 pcs ( pH 4 ,pH7, pH10). 1413uS buffer solution x1 (3M) Soaking Solution x 1

#### Specifications :

Data Hold:Freeze the display reading.

Meter **Dimension** : 180mm x 58mm x 32mm (With BNC connector), **Power supply**: AAA batteries x 6 pcs / 9V AC/DC (Option)

Temperature: 0~90 (PH) 0~90 (Cond/TDS/Salt/), **Temp. accuracy**: 0.5

PH: Measurement range PH: 0 to 14 pH, Accuracy 1% of full scale 1 digit, Resolution:0.01(pH)

ESL57751





## Conductivity Meter Pocket Type

Economy conductivity tester, meet general requirements, cost-effective

Long measurement range, automatic switching range.

Automatic calibration, automatic temperature compensation (without temperature display.)

Low voltage alarm display.

10 minutes automatic shut down.

Conductivity calibration solution configuration.

IP57 waterproof rating.

Measuring range Divided into three sections, automatic switching range:

(0~99.9) $\mu$ S/cm(100~999) $\mu$ S/cm (1.00~10.00)mS/cm

Resolution : 0.1/ $\mu$ S/cm:0.01 mS/cm

Accuracy  $\pm 1\%$ FS

Temperature compensation : (0~50) $^{\circ}$ C (Auto)

Automatic Calibration 1 point calibration(1413 $\mu$ S/cm)

Power : 2 AAA batteries, 1.5V  $\times$  2, more than 100 hours of continuous using

Size and **Weight** : 39 $\times$ 25 $\times$ 176 mm/ 87g

ESL57755



## Conductivity Meter Pen Type

The most cost effective pen conductivity tester, ability to switch among conductivity, TDS, salinity and resistivity, widely applied in surface water, sewage, drinking water, soil less, printing, wash water of plating tank, aquarium, fish pond, swimming pool, hot spring, etc. Compared with similar products: the widest measurement scope 0~50mS/cm, more measurement parameters, ability to switch among conductivity, TDS, salinity and resistivity. multinomial calculation for TDS and salinity to ensure the conversion precision of the full scale.

The smallest and thinnest shape : 148 $\times$ 29 $\times$ 14mm. The diameter of the electrode: 10mm.

The best function: automatic calibration, automatic temperature compensation, automatic switch of range, automatic power off, low voltage alarm, etc.

The easiest to use : single button operation.

Meet IP57 waterproof rating, replaceable batteries, calibration solution and standby batteries in a portable case.

ESL57757



## Conductivity EC /TDS/Salinity Pocket Tester Kit

Portable Pocket EC/TDS/Salinity Meter/Tester simply tests all kinds of regular conductivity measurements in an ACCURATE, QUICK, and RELIABLE manner. The applications include hydroponics, tap/drinking water, pools& spas, education, water treatment, environmental monitoring, etc. Up to 3 points of Auto Calibration with auto buffer recognition and 0 to 50 $^{\circ}$ C Auto Temperature Compensation (ATC), 0.01 mS/ $\pm 1\%$  F.S, 0.5 $^{\circ}$ C accuracy with measuring range of 0-200.0  $\mu$ S/cm, 0-2000  $\mu$ S/cm, 0-20.00 mS/cm, 0-50.0 $^{\circ}$ C.

APERA's unique BPB (Brush-Resistant Platinum Black) sensor adopts a special processing technology, which minimizes electrode polarization, expands measuring range, and increases the firmness of the electrode, hence ensuring a much higher accuracy and consistency in a wide-range conductivity

measurement than traditional stainless steel electrodes, and is easy to clean. The probe is replaceable and easy to install so that you don't have to buy a whole new meter once the probe is aged.

Auto recognition and indication of stable values improves consistency, saving you the trouble of guessing when to manually hold measurement. With a large clear 180 $^{\circ}$  viewing angle screen with 2 backlit colors (blue for measuring mode and green for calibration mode), it supports dual display of temp./EC value and indications of completed calibrations (where M/H indicate 2 points of calibrations) and stable readings (with a smiley face).

Easy menu setting, customizing your tester functions according to your needs (switch of temperature unit, TDS factor setting, Switch of salinity unit, auto hold on/off). Smart self-diagnosis, warning of out-of-range/preset measurement and incorrect calibrations.

Comes with a complete kit. IP67 waterproof and dustproof, floating on water. 1000 hours' continuous operation powered by AAA batteries (with low power warning and auto power off in 8 min if no operation)

ESL57758





## ES Portable Meter

### Features

3.5" TFT Color Display, user-friendly interface

A robust POM housing and stainless-steel protective guard ensure durability when measuring in tough environments

No membranes, no electrolyte, no warm up, minimize hassle

Fast response (shorter than 15s), fluorescence sensor technology provides high accuracy and repeatability

Intelligent function with Auto. timing datalogger, parameter setting, data hold

Built-in temperature sensor, real-time temperature compensation

Automatic barometric pressure compensation

Model			ESL57752	ESL57860	ESL57806	ESL57807P Polarography Type	ESL57807O Optical Type
Parameter		pH/mV.°C	✓	-	-	-	-
		mV(ORP).°C	✓	✓	-	-	-
		Cond/TDS/Sal./Res.°C	-	-	✓	-	-
		DO	-	-	-	✓	✓
pH	Measurement range	(-2.000-20.000) pH	✓	-	-	-	-
	Resolution	0.1/0.01/0.001	✓	-	-	-	-
	Accuracy	±0.002pH±one digit	✓	-	-	-	-
	Calibration points	1, 2, -3pts automatic	✓	-	-	-	-
	ATC range	(0.0-100.0) °C/(32.0-212.0)°F	✓	-	-	-	-
ORP	Measurement range	(-1999.9 - +1999.9) mV	✓	✓	-	-	-
	Resolution	0.1/1	✓	✓	-	-	-
	Accuracy	±0.03%F.±one digit	✓	✓	-	-	-
Conductivity	Measurement range	0-2000.0mS/cm, auto-ranging : 0-19.999µS/cm; 20.0-199.9µS/cm; 200-1999µS/cm; 2.00-19.99mS/cm;	-	-	✓	-	-
	Resolution	one point	-	-	✓	-	-
	Accuracy	0.001/0.01/0.1/1	-	-	✓	-	-
DO	ATC range	(0.0-50.0) °C/(32.0-122.0)°F	-	-	✓	-	-
	Accuracy	±0.5 % FS±one digit	-	-	✓	-	-
	Measurement range	(0.00-20.00) mg/L	-	-	-	✓	✓
	Accuracy	±0.30 mg/L	-	-	-	✓	-
		±0.20 mg/L	-	-	-	-	✓
	DO saturation	(0.0-200.0)%	-	-	-	✓	✓
	Barometric pressure compensation	(0-200.0) kPa	-	-	-	✓	✓
Temperature	Temperature compensation	(0.0-50.0) °C/(32.0-122.0)°F	-	-	-	✓	✓
	Salinity compensation	0~45ppt	-	-	-	✓	✓
	Measurement range	(0.0-100.0) °C/(32.0-212.0)°F	✓	✓	✓	✓	✓
	Accuracy	±0.2°C	✓	✓	✓	✓	✓
Others	Charging socket	Type-C	✓	✓	✓	✓	✓
	Power supply	rechargeable lithium battery	✓	✓	✓	✓	✓
	IP Rating	IP57	✓	✓	✓	✓	✓
Test kit		Meter	✓	✓	✓	✓	✓
		Plastic ATC pH probe D201T-H	✓	-	-	-	-
		Plastic ORP probe DORP301	-	✓	-	-	-
		Stainless-steel temperature probe DTEMP-02H	-	✓	-	-	-
		Plastic ATC Cond probe DCON201T, K=1.0	-	-	✓	-	-
		Polarographic DO probe DDO01-2M-H, cable length: 2m	-	-	-	✓	-
		Optical DO probe DDO01-3M, cable length: 3m	-	-	-	-	✓
		pH buffer solution: pH4.00/7.00/10.01, 50mL, one for each	✓	-	-	-	-
		Standard ORP solution: 222mV, 50mL,1btl	-	✓	-	-	-
		Standard Cond solution 84µS/1413µS/12.88mS/cm, 50mL, one for each	-	-	✓	-	-
		Membrane refill solution DDOS-01, 30mL,1btl	-	-	-	✓	-
		Membrane sensor caps DDOSC: 3pcs/group, 1pkg	-	-	-	✓	-
		Rechargeable lithium battery (pre-installed)	✓	✓	✓	✓	✓
		Charging cable: 1pc	✓	✓	✓	✓	✓
		Hard carrying case (L/W/H: 33.0×27.2×8.2cm): 1pc	✓	✓	✓	✓	✓
		Operation manual	✓	✓	✓	✓	✓



## ES Desktop Meter

### Features

High-res 7" display screen with white backlight, easy to read  
Automatic calibration, ATC measurement, parameter setup  
Automatic reading stable indication, calibration indication  
Data storage: 450 readings  
Data export: Flash disk/ Wireless printer (the printer is optional)  
Equipped with a flexible probe holder and pH buffer solutions for convenient use  
Protection class: IP54



Model			ESL57754	ESL57760	ESL57809	ESL57854	ESL57855	ESL57856	ESL57857
Parameter	pH/mV.°C		✓	-	-	✓	✓	-	✓
	mV(ORP).°C		✓	-	-	✓	✓	-	✓
	Cond/TDS/Sal./Res.°C		-	✓	-	✓	-	✓	✓
	DO		-	-	✓	-	✓	✓	✓
pH	Measurement range	(-2.00-20.00) pH	✓	-	-	✓	✓	✓	✓
	Resolution	0.1/0.01	✓	-	-	✓	✓	-	✓
	Accuracy	±0.01pH±one digit	✓	-	-	✓	✓	-	✓
	Calibration points	1, 2, -3pts automatic	✓	-	-	✓	✓	-	✓
	ATC range	(0.0-100.0) °C/(32.0-212.0) °F	✓	-	-	✓	✓	-	✓
ORP	Measurement range	(-1999.9 - +1999.9) mV	✓	-	-	✓	✓	-	-
	Resolution	0.1/1	✓	-	-	✓	✓	-	-
	Accuracy	±0.1%F.±one digit	✓	-	-	✓	✓	-	-
Conductivity	Measurement range	0-200.0mS/cm, auto-ranging : 0-19.99µS/cm; 20.0-199.9µS/cm; 200-1999µS/cm; 2.00-19.99S/cm; 20.00-199.9mS/cm; TDS: 0 - 100.0g/L (TDS factor adjustable) Resistivity: 5.00Ω·cm-100.0MΩ·cm Salinity: 0-100ppt	-	✓	-	✓	-	✓	✓
	Calibration points	one point	-	✓	-	✓	-	✓	✓
	Resolution	0.01/0.1/1	-	✓	-	✓	-	✓	✓
	ATC range	(0.0-50.0) °C/(32.0-122.0) °F	-	✓	-	✓	-	✓	✓
	Accuracy	±1.0% FS±one digit	-	✓	-	✓	-	✓	✓
DO	Measurement range	(0.00-20.00) mg/L	-	-	✓	-	✓	✓	✓
	Accuracy	±0.30 mg/L	-	-	✓	-	✓	✓	✓
	DO saturation	(0.0-200.0)%	-	-	✓	-	✓	✓	✓
	Automatic barometri pressure compensation	(0-200.0) kPa	-	-	✓	-	✓	✓	✓
	Automatic temperature compensation	(0.0-50.0) °C/(32.0-122.0) °F	-	-	✓	-	✓	✓	✓
	Manual salinity compensation	0-45ppt	-	-	✓	-	✓	✓	✓
Temperature	Measurement range	(0.0-100.0) °C/(32.0-212.0) °F	✓	✓	✓	✓	✓	✓	✓
	Accuracy	±0.2°C	✓	✓	✓	✓	✓	✓	✓
Others	Data export	Flash disk/Printer	✓	✓	✓	✓	✓	✓	✓
	Power supply	DC12V	✓	✓	✓	✓	✓	✓	✓
Test kit	Meter		✓	✓	✓	✓	✓	✓	✓
	Plastic ATC pH probe D201T		✓	-	-	✓	✓	-	✓
	Plastic ATC Cond probe DCON201T, K=1.0		-	✓	-	✓	-	✓	✓
	Polarographic DO probe DDO01-2M, cable length: 2m		-	-	✓	-	✓	✓	✓
	pH buffer solution: pH4.00/7.00/10.01, 50mL, one for each		✓	-	-	✓	✓	-	✓
	Standard Cond solution 84µS/1413µS/12.88mS/cm, 50mL, one for each		-	✓	-	✓	-	✓	✓
	Membrane refill solution DDOS-01, 30mL, 1btl		-	-	✓	-	✓	✓	✓
	Membrane sensor caps DDOSC: 3pcs/group, 1pkg		-	-	✓	-	✓	✓	✓
	Power adaptor: 1pc		✓	✓	✓	✓	✓	✓	✓
	Flexible probe holder DF01: 1pc		✓	✓	✓	✓	✓	✓	✓
	Operation manual		✓	✓	✓	✓	✓	✓	✓





## ES Desktop Meter

### Features

High-res 7" display screen with white backlight, easy to read  
Automatic calibration, ATC measurement, parameter setup  
Automatic reading stable indication, calibration indication  
Data storage: 450 readings  
Data export: Flash disk/ Wireless printer (the printer is optional)  
Equipped with a flexible probe holder and pH buffer solutions for convenient use  
Protection class: IP54



Model		ESL57754T	ESL57760T	ESL57809T	ESL57854T	ESL57855T	ESL57856T	ESL57857T
Parameter	pH/mV.°C	✓	-	-	✓	✓	-	✓
	mV(ORP).°C	✓	-	-	✓	✓	-	✓
	Cond/TDS/Sal./Res.°C	-	✓	-	✓	-	✓	✓
	DO	-	-	✓	-	✓	✓	✓
pH	Measurement range	(-2.000-20.000) pH	✓	-	✓	✓	-	✓
	Resolution	0.01/0.001	✓	-	✓	✓	-	✓
	Accuracy	±0.002pH±one digit	✓	-	✓	✓	-	✓
	Calibration points	1, 2, -5 pts automatic	✓	-	✓	✓	-	✓
	ATC range	(0.0-100.0) °C/(32.0-212.0) °F	✓	-	✓	✓	-	✓
ORP	Measurement range	(-1999.9 - +1999.9) mV	✓	-	✓	✓	-	-
	Resolution	0.1/1	✓	-	✓	✓	-	-
	Accuracy	±0.03%F.S±one digit	✓	-	✓	✓	-	-
Conductivity	Measurement range	0-2000.0mS/cm, auto-ranging : 0-19.999µS/cm; 20.0-199.9µS/cm; 200-1999µS/cm; 2.00-19.99mS/cm; 20.00-199.9mS/cm; 200.0-2000mS/cm (K=10) Match test range: 0-200mS/cm TDS: 0 - 100.0g/L (TDS factor adjustable) Resistivity: 5.000Ω-cm-100.0MΩ-cm Salinity: 0-100ppt	-	✓	-	✓	-	✓
	Calibration points	one point	-	✓	-	✓	-	✓
	Resolution	0.001/0.01/0.1/1	-	✓	-	✓	-	✓
	ATC range	(0.0-50.0) °C/(32.0-122.0) °F	-	✓	-	✓	-	✓
	Accuracy	±0.5 % FS±one digit	-	✓	-	✓	-	✓
	Measurement range	(0.00-20.00) mg/L	-	-	✓	-	✓	✓
	Accuracy	±0.30 mg/L	-	-	✓	-	✓	✓
	DO saturation	(0.0-200.0)%	-	-	✓	-	✓	✓
	Automatic barometri pressure compensation	(0-200.0) kPa	-	-	✓	-	✓	✓
	Automatic temperature compensation	(0.0-50.0) °C/(32.0-122.0) °F	-	-	✓	-	✓	✓
DO	Manual salinity compensation	0-45ppt	-	-	✓	-	✓	✓
	Measurement range	(0.0-100.0) °C/(32.0-212.0) °F	✓	✓	✓	✓	✓	✓
	Accuracy	±0.2°C	✓	✓	✓	✓	✓	✓
Others	Data export	Flash disk/PC/Printer	✓	✓	✓	✓	✓	✓
	Power supply	DC12V	✓	✓	✓	✓	✓	✓
Test kit	Meter	✓	✓	✓	✓	✓	✓	✓
	Glass refillable combination pH probe D201G	✓	-	-	✓	✓	-	✓
	Stainless-steel temperature probe DTEMP-01	✓	-	-	✓	✓	-	✓
	Glass ATC conductivity probe DCON201TG, K=1.0	-	✓	-	✓	-	✓	✓
	Polarographic DO probe DDO01-2M	-	-	✓	-	✓	✓	✓
	pH buffer solution: pH4.00/7.00/10.01, 50mL, one for each	✓	-	-	✓	✓	-	✓
	Standard Cond solution 84µS/1413µS/12.88mS/cm, 50mL, one for each	-	✓	-	✓	-	✓	✓
	Membrane refill solution DDOS-01, 30mL, 1btl	-	-	✓	-	✓	✓	✓
	Membrane sensor caps DDOSC: 3pcs/group, 1pkg	-	-	✓	-	✓	✓	✓
	PC cable: 1pc	✓	✓	✓	✓	✓	✓	✓
	Flexible probe holder DF01: 1pc	✓	✓	✓	✓	✓	✓	✓
	Magnetic stirrer: 1pc	✓	✓	✓	✓	✓	✓	✓





## Dissolved Oxygen Meter

Portable (DO Meter)

Equipped with state-of-the-art Optical DO sensor: measures dissolved oxygen level in a RELIABLE and EFFORTLESS manner Intelligent functions: Auto. recognition of stable values Minimal maintenance required. Easy calibration IP57 waterproof and dust-proof structure, ideal to be used in harsh environments

Powered by AAA batteries, Comes with a complete test kit, including the meter, optical probe, calibration cap, and a rugged carrying case Set Includes the Following :

1. Portable DO meter 1pc
2. Optical DO probe 1pc
3. Calibration cap 1pc
4. Carrying case
5. Manual

ESL57808



## PH & Conductivity Meter Desk Top

pH + Conductivity Double-Parameter measurement meter which is suitable for general measurement in laboratory. It is suitable for measuring the pH value of moderate ionic strength aqueous solution, and conductivity values of conventional solution

- The most widely used pH + Conductivity Double-Parameter measurement meter.

- Meter meets with the requirement of international GLP standards. Its features up to automatic calibration, automatic temperature compensation, data storage, timing measurement, clock display, RS-232 output, function setting and self-diagnose etc.

- There are three different measurement modes: stable display mode; time measurement mode; continuous measurement mode.

- Automatically recognize pH buffer solution. User can choose anyone from three series of standard buffer solutions: Europe & USA series, NIST series and China series.

- Adopt advanced and original conductivity measurement technology, use 1 pc of conductivity electrode (K=1), it can meet measuring accuracy requirement for range within  $0.5\mu\text{S}/\text{cm} \sim 200\text{mS}/\text{cm}$  by using only one-point calibration.

Can switch Conductivity, TDS, Salinity and Resistivity.

Meter has the only product serial number.

Dust-proof and waterproof meter meets IP54 standards. All sockets are seal protected by the silica gel caps.

ESL57759

## Conductivity/TDS Portable Meter Kit

Our Portable Conductivity/TDS Meter Kit is the most economical choice for a reliable portable conductivity meter. Equipped with A Instrument BPB (Brush-Resistant Platinum Black) conductivity sensor/electrode/tester, the meter tests EC, TDS, and temperature simultaneously in a quick and accurate manner (Accuracy:  $\pm 1.0\%$  F.S, Range: 0 to 200mS, 0 to 50°C (32 to 122°F) Auto or Manual Temperature Compensation) Intelligent Functions: Quick & Easy 1 to 3 Points Auto Calibration. The Smart Self-Diagnosis helps you conduct proper calibrations and determine the condition of your probe. Fully configurable parameter setting: solution standards, temperature unit, backlight time, auto-power off time, TDS factor, temperature coefficient, etc. The large clear LCD displays EC/Temperature simultaneously along with icons of stable readings and finished calibrations.

Reliable Structure: IP57 Waterproof and Dustproof, ideal for use in harsh environments. It comes with a complete test kit including a Portable Conductivity Meter, a Conductivity Electrode, and 3 calibration solutions in a rugged carrying case. Powered by AA Batteries.



ESL57760



## PH Meter Desk Top

General laboratory bench pH meter, which is suitable for measuring moderate ionic strength solutions, such as surface water, lake water and industrial wastewater. It can be used in most of the areas related to water quality analysis. Meter meets with the requirement of international GLP standards. Its features up to automatic calibration, automatic temperature compensation, data storage, timing measurement, clock display, RS-232 output, function setting and self-diagnose etc.

- There are three different measurement modes: stable display mode; time measurement mode; continuous measurement mode.

Automatically recognize pH buffer solution.

Meter has the only product serial number.

Dust proof and waterproof meter meets IP54 standards. All sockets are seal protected by the silica gel caps. pH .

ESL57753

## Electrode Holder Flexible

Base of holder is made up of ABS hull, cast iron counter weight and axis of rotation of stainless steel. All of these lead to professional design, attractive appearance and stability.

three electrodes can be put into electrode chuck (electrode cap  $\Phi 16\text{ mm}$ )

ESL57761





Name	Combination pH electrode
Mode	D201G
Connector type	BNC
Housing material	Glass
Measurement range	0-14.0pH
Temp. range	0-100°C
Junction	Ceramic
Electrolyte	3 mol KCl (refillable)
Reference electrode	Ag/AgCl
Cable length	1m

Name	Combination pH electrode
Mode	D201A-C
Connector type	BNC
Housing material	PC
Measurement range	0-14.0pH
Temp. range	0-60°C
Junction	Ceramic
Electrolyte	3 mol KCl Gel
Reference electrode	Ag/AgCl
Cable length	1m

Name	Combination ORP electrode
Mode	DORP301
Connector type	BNC
Housing material	PC
Measurement range	-1999-+1999mV
Temp. range	Platinum ring 0-60°C
Junction	Ceramic
Electrolyte	3 mol KCl
Reference electrode	Ag/AgCl
Cable length	1m



Name	Combination Cond electrode
Mode	DCON201TG
Connector type	4-pins
Temp thermistor	10KΩ
Housing material	Glass
Constant	$K=1.0 \pm 0.02 \text{ cm}^{-1}$
Sensor	Platinum plate
Measurement range	0.5μS/cm-200.0mS/cm
Temp. range	0-80°C
Cable length	1m



Name	Combination Cond electrode
Mode	DCON201/DCON201T
Connector type	BNC/4-pins
Temp thermistor	--- /10KΩ
Housing material	PC
Constant	$K=1.0 \pm 0.02 \text{ cm}^{-1}$
Sensor	Platinum rod
Measurement range	0.5μS/cm-200.0mS/cm
Temp. range	0-80°C
Cable length	1m



Name	Ultra-purified water Cond electrode
Mode	DDJS-0.01V
Connector type	4 pins
Constant	$K=0.01 \pm 0.02 \text{ cm}^{-1}$
Sensor	Titanium
Measurement range	0-2.0μS/cm
Cable length	1m



Name	Temperature electrode
Mode	DTEMP-01/DTEMP-02H
Connector type	miniBNC/4-pins
Sensor	10KΩ
Material	Stainless steel
Temp. range	0-110°C
Cable length	1m



Name	Polarographic DO
Mode	DDO01-2M-H/DDO01-2M
Connector type	8-pins / BNC & miniBNC
Housing material	POM
Measuring type	Polarographic type
Measurement range	0-20mg/L 0-200% Saturation
Temp. range	0-50.0°C
Cable length	2m



Name	Optical DO
Mode	DODO01-3M
Connector type	8-pins
Housing material	POM and stainless steel protection guard
Measuring type	Optical type
Measurement range	0-20mg/L; 0-200% Saturation
Temp. range	0-50.0°C
Cable length	3m





## Colorimeter 2.0 Basic

Measures transmittance or absorbance of visible light at three wavelengths through a sample with a 10mm path length and displays the values on a liquid crystal display or via USB to dedicated PC software or through a wireless connection to an app on iOS or Android phones and tablets. Disclaimer The colorimeter is suitable for educational use. It is not intended for clinical, commercial or research applications. Specifications Power source: 4xAA batteries (included) or USB A to mini B Power switch: On/Off – automatic switch off after 2 minutes unless connected to USB or app. Wireless connection: Bluetooth 4.0 (LE, Smart) Measures: Transmittance: 0-100.0% - resolution 0.1% Absorbance: 0.000-1.999 stand alone or 0.000-3.000 with PC or phone/tablet – resolution 0.001 LEDs: Red ~630nm, Green ~525nm, Blue ~465nm Sample holder: 10x10mm plastic or glass cuvette, capacity 4mls or 12mm diameter test-tube Weight: 240g Packed weight: 420g includes 10 cuvettes, 10 cuvette caps, 2 test-tubes, USB cable, laminated quick instruction card, instruction manual, 4 x AA batteries, packaging. PC Software: System requirements: Windows 2000, XP, Vista, Windows 7, 8 or 10 with the .NET Framework 2.0 or later installed. Download: Free IOS app: Name: Mystrica Colorimeter Download: Free from the App Store Use with: iPhone 4S or later (not 4) or iPad Air, Mini, 3rd & 4th generation Android app: Name: Mystrica Colorimeter Download: Free from the Google Play Store Use with: Bluetooth 4.0 enabled Android devices Compliance: CE compliance tested FCC ID: 2AC8AMYS2 Warranty: 1 year subject to normal use

ESL57771

## Colorimeter 2.0 Basic Set/4

set of four Colorimeter Wireless 2.00 ESL57771 and fitted in a deep Grattells tray with alid and polyethylene foam insert ; Apart from the colorimeters the contents are :

- a box of 40 4ml cuvettes • a box of 80 cuvette caps • a box of 25 12mm glass test-tubes • 4 cuvette racks • 4 USB cables
- 4 laminated instruction sheets • 2 user manuals



ESL57771/4



## Colorimeter 1G-7

New LED technology with broad spectral coverage - Works with a 10 x 10 mm cuvette or a 14 mm test tube - Can be used as a standalone measuring device or in Data Acquisition Systems Light source: LED - Measurement on 7 wavelengths between 470 and 660 nm - Wavelengths: 470 nm - 525 nm - 570 nm - 590 nm - 605 nm - 626 nm and 660 nm - Absorbance: from -3 to +3 abs - Transmission: from 0 to 100% T - Resolution: 0.01 abs / 100.0% - Precision:  $\pm 1.5\%$  - Analog output: on 4 mm safety banana sockets, -3V/3V corresponding to -3 abs/3 abs of absorbance. - 0V/1V corresponding to 0/100% transmission. - Power supply: mini USB power supply (provided). - Dimensions: 160 x 120 x 70 mm.

ESL57772

## Student Spectrophotometer USB and Bluetooth

Technical Specifications: Measurement Modes: - Transmittance - Absorbance - Fluorescence/Bioluminescence Resolution: 2 - 3 nm Samples: 10x10mm cuvette or 50x50mm slide Spectral Range: 360 - 1000 nm Light Sources: - White LED + selectable colors (via software) - Side excitation LEDs 395-415 nm and 500-540 nm Connection: USB or Bluetooth Software: Integrated (USB mode) - Plug & Play Application: To download (Bluetooth mode) Power Supply: Built-in battery + charger included Python Compatibility: Yes Software Compatibility: W7 and +, Mac, Android, iOS Included Accessories: Cuvette/slide cover, cord, power block Battery: - Usage: 8 hours - Maximum charging time: 4 hours Dimensions: 190 x 120 x 60 mm.



ESL57814

## Student Spectrophotometer USB and Bluetooth kit & Optical Fiber

ESL578140F



## Spectrophotometer UV VIS Smart

Our Smart System can grasp the quantitative characteristics such as density or purity by measuring transmittance or optical density according to wavelength of sample in the range of ultraviolet rays and visible ray. Smart can be utilized from not only a general analysis experiment to but also a specialized research field and guarantee accurate measurement and excellent reproducibility, accordingly offer reliable results in the various fields such as environment, biotechnology, chemistry, etc.

ESL57764

Photometrics System	: Double-beam type
Spectral Bandwidth	: 1 nm (190 to 1100 nm)
Wavelength Range	: 1 nm (190 to 1100 nm)
Wavelength Display(setting)	: 0.1 nm
Wavelength Accuracy	: $\leq \pm 0.05$ nm at 486, 656.1 nm $\leq \pm 0.3$ nm (190 to 1100 nm)
Wavelength Repeatability	: $\leq \pm 0.1$ nm
Slew Rate	: About 8,800 nm/min
Scan Speed	: Max 4,000 nm/min
Photometric Range	: Absorbance: -4 to 4 Abs Transmittance: 0 % to 400 %
Light Source	: Tungsten Halogen Lamp & Deuterium Lamp (Built-in light source auto interchanging motor)
Stray Light	: $\leq 0.02$ % NaI at 220 nm, NaNO <sub>2</sub> at 340 nm

Monochromator	: Czerny-Turner type with 1200 lines/nm
blazed grating Standard	: Automatic Rotary type 8-position Multi- Cell
Multi-Cell Holder	: $\pm 0.0002$ at 0.5 Abs
Photometric Repeatability	: $\pm 0.0006$ at 1.0 Abs $\pm 0.001$ at 2.0 Abs
Baseline Stability	: $\leq 0.0003$ Abs/h
Baseline Flatness	: $\leq \pm 0.0005$ Abs
Lamp Interchange Wavelength Display	: 340-410 nm (Default 370 nm)
Operating System(OS)	: 8 inch color LCD with touch screen
Power Requirement Weight(kg)	: Windows 10 (Embedded PC);
Dimensions(W x D x H)	: 100-240 V; 50-60 Hz





## Spectrophotometer Double Beam UV VIS

Native USB socket

Integrated software : no installation - Wavelength range: 380-800 nm

Easy to use, this spectrophotometer makes chemistry experiments feasible for students. Connected to the computer via a native USB socket, this spectrophotometer, with its integrated software, will be ready to acquire data whatever the workstation. New features: such as real-time spectrum observation. With 3D kinetics, the colorimetric dosage of a solution, initially transparent, can be carried out without knowing the final color of the solution. Functionalities maintained: absorbance, transmittance, Beer-Lambert, colorimetric dosage, monitoring of classic kinetics.

The acquisition duration (automatic or manual) makes it possible to adapt the measurement dynamics to the solution or filter analyzed.

### Possible Experiments:

- Absorbance / Transmittance.
- Beer-Lambert
- Colorimetric dosages
- Kinetic Monitoring: traditional and 3D
- Study of colored filters

Compatibility: XP/ Seven 32 & 64 bits/ Windows 8

Measurement mode: Absorbance-Transmittance

Integration time: auto or manual; 0.1 ms to 5s.

Real-time spectrum

Photometric range: Abs: 0 to 2.5 / T (in %)

Power supply: supplied



Baseline Stability :  $\pm 0.001$  Abs/h

Baseline Flatness :  $\pm 0.002$  Abs

Monochromator : Czerny-Turner type with 1200 lines/nm blazed grating

Light Source : Tungsten Halogen Lamp & Deuterium Lamp (Built-in light source auto interchanging motor)

## Photometer Portable Mini

Optical System Reflectance Monochromatic with Optical LED

Detector Photo-diode

Photo-diode 128x64 dot matrix graphic LCD

Printer Small label printer (Optional)

Power requirement Four 1.2V Ni-MH rechargeable batteries

DC 9V 1A Adapter

Inhibition Reproducibility  $\pm 3\%$

Data save Maximum 2000

Interface Ports USB communications RS-232C serial

Data download PC S/W Provided (Optizen MiniView)

Time setting Extraction 5min/Reaction 10min

**Overall Dimensions :** 110(W) x 48(H) x 245(D)

**Weight :** 500g

## Photometer Portable Round Cell Holder

Accessory for spectrophotometer



ESL57765

## Spectrophotometer Vis

ESL57763

Optical System	: Single Beam
Spectral Band Width	: 1.8 nm (190 to 1100 nm)
Wavelength Range	: 190 to 1100 nm
Wavelength Display(setting)	: 0.1 nm Wavelength
Accuracy	: $\pm 0.5$ nm
Wavelength Reproducibility	: $\pm 0.1$ nm
Slew Rate Scanning	: About 8,800 nm/min
Speed Photometric	: Max 4,000 nm/min
Range	: Absorbance : -3 to 3 Abs
Transmittance	: 0 % to 300 %
Photometric Accuracy	: $\pm 0.005$ at 1.0 Abs
Photometric Reproducibility	: $\pm 0.003$ at 1.0 Abs
Stray Light	: $< 0.05\%$ NaI at 220 nm, $\text{NaNO}_2$ at 340 nm
Standard Cell Holder	: Automatic Rotary type 8-position Multi-Cell Holder
Display	: 7 inch color LCD with touch screen
Operating System(OS)	: Windows CE
Power Requirement	: 100-240 V; 50-60 Hz
Overall Dimensions	: (W x D x H) 433 mm x 381 mm x 180 mm
Weight	: 8 Kg



ESL57767

## Photometer Portable Cell Holder Cover

Accessory for photometer portable mini

ESL57769

ESL57768





## Spectrophotometer

The spectrophotometer is an indispensable instrument routinely used in colleges, universities and research institutes for quantitative analysis in fields including biotechnology and quality control of new material developed. V-Series provide high resolution, high performance and excellent stability.

### Features

- User Friendly Operation and Information Rich LCD Display: The large 128 x 64 dots, backlit LCD screen with adjustable brightness control displays a large array of data also in graphical format
- On-Board Data Storage: The System can save the test results, up to 200 group datas and 200 standard curves in the RAM memory
- Data can be restored after a sudden power failure
- Auto setting wavelength: Setting wavelength automatically to calibrate the system through arrow keys to avoid operation errors
- Automatic Switching: Tungsten & Deuterium lamps switching is automatic. Wavelength range are selectable from 190 to 1100nm
- PC control through application software: The spectrophotometer is fully equipped and capable of executing all functions in stand-alone mode. The optional application software 'Wave Professional' provides computer control through the built-in USB port, apart from other functions such as spectrum scan, time scan (kinetics), multiwavelength scanning & Nucleic Acid / Protein measurement. (ESL57812/ESL57813)
- Large sample compartment: To accommodate 5–100mm path length cuvettes with optional holders. A variety of optional accessories are available

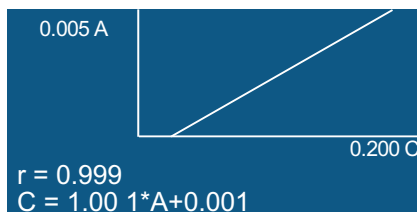
ESL57810- ESL57811

ESL57812- ESL57813

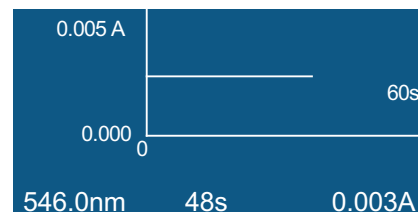
### Basic Mode

546.0nm		0.001A	
No.		Abs	
1		0.001	
2		0.000	
3		0.002	
4		0.000	
5		0.003	

### Quantitative



### Kinetics





Model	ESL57810	ESL57811	ESL57812	ESL57813
Optical System	Single Beam	Single Beam	Single Beam	Single Beam
Light Source	Tungsten lamp	Tungsten lamp & Deuterium lamp	Tungsten lamp	Tungsten lamp & Deuterium lamp
Spectral Bandwidth	4.0nm	4.0nm	2.0nm	2.0nm
Wavelength Range	325-1000nm	200-1000nm	320-1100nm	190-1100nm
Wavelength Accuracy	±2nm	±2nm	±0.5nm	±0.5nm
Wavelength Repeatability	≤1nm	≤1nm	≤0.3nm	≤0.3nm
Photometric Range	-0.3 - 3.0 A, 0 - 200%T	-0.3 - 3.0 A, 0 - 200 %T	-0.3 - 3.0 A, 0 - 200 %T	-0.3 - 3.0 A, 0 - 200%T
Photometric Accuracy	±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T	±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T	±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T	±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T
Photometric Repeatability	≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T	≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T	≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T	≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T
Stability	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)
Stray Light	≤0.2%T @ 360nm	≤0.2%T @ 220&360nm	≤0.05%T @ 360nm	≤0.05%T @ 220 & 360nm
Sample Compartment	4-position, 10mm path length cuvette	4-position, 10mm path length cuvette	4-position, 10mm path length cuvette	4-position, 10mm path length cuvette
Display	LCD	LCD	LCD	LCD
Output	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)
Power	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 80W
Dimension(L×W×H)	490×360×210mm	490×360×210mm	490×360×210mm	490×360×210mm
Weight	12kg	14kg	12kg	14kg





**Cat. No. 578100337**  
Micro Cell holder



**Cat. No. 578100340**  
8-position auto cell changer  
(for ESL57812& ESL57813)



**Cat. No. 578100331**  
4-cell holder for 10mm squ.cuvette



**Cat. No. 5781000332**  
4-cell holder for 10mm to 50mm squ. cuvette



**Cat. No. 578100333**  
4-cell holder for up to 100mm squ.cuvette



**Cat. No. 578100338**  
Test tube holder(ø8-ø22mm)



**Cat. No. 578100334**  
cylindrical cell holder(ø16mm)



**Cat. No. 578100339**  
solid sample holder (ø1.5-3mmø1 position)



**Cat. No. 578100335**  
10mm water-jacketed 1 cell holder  
(for ESL57812& ESL57813)



**Cat. No. 578100336**  
10mm water-jacketed 4-cell holder (for  
ESL57812& ESL57813)



**Cat. No. 578100343**  
Square cuvettes glass/quartz 1-5mm/10-  
100mm



**Cat. No. 578100341**  
12V20W halogen lamp



**Cat. No. 578100342**  
Milas deuterium lamp,10V,300mA, 30W (for  
ESL57812& ESL57813)





## Disc Polarimeter

ESL57820

Range	$\pm 180^\circ$
Scale Value	$1^\circ$
Vernier	$0.05^\circ$
Magnifier	3X
Light Source	Sodium lamp
Wavelength	589nm
Tube Length	50, 100, 200mm
Power	220V/50Hz
Dimensions	500(L) $\times$ 135(W) $\times$ 330(H)mm
Weight	5kg
Package	600(L)200(W) $\times$ 400(H)mm



Labware

Cat. Number	Descriptions
57820001	Polarimeter Tube 100mm
57820002	Polarimeter Tube 200mm
57820003	Sodium Lamp 589nm

## ESL-R03AR Series Abbe Refractometer

ESL57822

Model "ESL57822" is a simple yet highly reliable Abbe refractometer with a digital thermometer. Liquid, solid and pasty samples can be evaluated. This refractometer is robust, accurate and easy to use.

Optionally a solid aluminium case for transport and storage is available. It measures the refractive index (nD).

The main scope of applications is:

- Sugar industry: such as cane sugar
- Pharmacy
- Beverage industry
- Food industry
- Chemical industry
- Oil industry/Refinery
- Laboratories
- Training

Industry: Monitoring of lubricants for process and quality control

Food industry: Beverages, fruits and sweets

Agriculture: Determination of the degree of ripeness of fruits for quality control in harvesting

Restaurants and large-scale catering establishment



Model	Scales	Range	Resolution	Accuracy
ESL57822	Brix	0-95%	$\pm 0.1$	0.25%
	Refractive Index	1.3000-1.7000nD	$\pm 0.0002nD$	0.0005nD





## Vernier Calliper - Whirl, Plastic

Columbus type calliper enabling the user to read either inside, outside or depth measurements. With dual scale 0-12 cm x 0.1mm Imperial scale graduated to 5 x 1/128 provided with thumb wheel for easy motion of jaws, in plastic case.

ESL57774



## Vernier Calliper - Whirl, Steel

Columbus type calliper enabling the user to read either inside, outside or depth measurements. With dual scale 0-12 cm x 0.1mm Imperial scale graduated to 5 x 1/128 provided with thumb wheel for easy motion of jaws, in plastic case.

ESL57775



## Vernier Calliper Digital

Measuring range : 0-150mm , Readability : 0.01mm

ESL57781



## Vernier Calliper Aluminium

Vernier calliper made of aluminium , high quality .

ESL57777 0-150 0.05 mm

ESL57778 0-125 0.05 mm

## Measuring Tape

Fiber glass windup meter tape with tow sides marking sealed in cannot tear-wind up case length Deferent meter

ESL57791 Measuring Tape 5 M

ESL57792 Measuring Tape 10 M

ESL57793 Measuring Tape 15 M

ESL57794 Measuring Tape 25 M

ESL57795 Measuring Tape 50 M



## Micrometer 0-25 Mm With Lock

With ratchet top, accurately machined stainless steel rod. Range 0-25 x 0.01 mm, supplied in case. Accuracy is perfect for a hobbyist or student -- at 10mm, accuracy is +/- .003mm.

ESL57784



## Micrometer 0-25 mm

With ratchet top, accurately machined stainless steel rod. Range 0-25 x 0.01 mm, supplied in case. Accuracy is perfect for a hobbyist or student -- at 10mm, accuracy is +/- .003mm.

ESL57783



## Micrometer Digital

Measuring range : 0-25mm , Readability : 0.001mm

ESL57786



## Spherometer Superior

Brass dial head about 40mm dia., Divided and marked in 100 divisions, vertical scale 10-0-10mm, fitted on heavy brass disc, with 3 pointed legs, distance between legs 40mm.

ESL57723

## Engineering Rule

Engineering Rule



ESL57806





### Flexible Desk Lamp

- Versatile flexible neck
- Metal and plastic construction
  - Integral on/off switch
  - Height: 340mm approx

ESL57877

### Lamp Bulbs, Round



D Battery Holder with Socket Terminals  
Used as battery holder size UM1 or D  
Size: 120 x 70mm, with 4mm socket terminal  
Material: Plastic  
Can be mounted on the board  
**Weight:** 0.029kg

ESL57900

### Lamp Holder Mounted SBC

Solid steel Small Bayonet Cap (SBC) lamp holder with a tough powder coat paint finish and a solid brass lamp holder with 2 x 4mm electrical sockets. Ready to use. Pack of 10

ESL57880 (12V 21W lamp), PK OF 10

ESL57881 (12V- 36W Axial lamp), PK OF 10

ESL57882 (12V - 24W Axial lamp), PK OF 20



### Lamp Bulbs, Round

M.E.S. Cap, 1.25V

ESL57890

### Lamp Bulb E 10, 1.5v/0.2a (10pcs/Pack)

Lamp Bulb E 10, 1.5V/0.2A (10pcs/pack)

Voltage: 1.5V, Ampere: 0.2A

Packaging: 10pcs/pack

**Dimension:** 14.00 (L) x 9.00 (W) x 2.00cm (H)

ESL57889

### Lamp Bulb E 10, 2.5v/0.5a (10 Pcs/Pack)

Lamp Bulb E 10, 2.5V/0.5A (10 pcs/pack)

Voltage: 2.5V

Ampere: 0.5A

Packaging: 10pcs/pack

**Dimension:** 14.00 (L) x 9.00 (W) x 2.00 cm (H)**Weight:** 0.013kg

ESL57888

### Lamp Bulb E 10, 10V (10 PCS/Pack)

the value of the voltage should be printed clearly on the bulb.

ESL57886

### Lamp Bulb E 10, 12V (10 PCS/Pack)

the value of the voltage should be printed clearly on the bulb.

ESL57886/12

### Lamp Bulb E 10,5V (10 PCS/Pack)

the value of the voltage should be printed clearly on the bulb.

ESL57887

### Lamp Bulbs, Lens Ended

2.2V, 0.25A, lens ended, M.E.S. Cap.

ESL57891



### Buzzer Piezo

The tones is slow pulse with operating with 3V , the sound level SPL is 85dB and self resonant frequency about 3.7kHz. The dimension for external diameter is 29.5mm and external depth is 24.5mm with leaded process compatible

ESL57977



### Battery Holders Pk Of 10

The Irwin Tapped pack of 10 battery holders hold 4 x D (R20) batteries with outputs at 1.5, 3, 4.5 and 6V. Batteries and leads not supplied. Each output has a 4mm socket. Manufactured in the UK from premium strong perspex.

Manufactured in the UK

ESL57899

### Battery Holder

Size: Overall : 175 x 62mm , thickness 10mm for D size battery  
Material : Brass and plastic  
Positive and negative given plate attached to plastic base with bolts and given alligator clip, each battery with nuts and bolts of the base

ESL57901



### Cell holder

Cell-holder Made of unbreakable plastic to hold battery, curved sides help prevent battery from falling out when it is upside down.

ESL57903 Single For 'D' Size Battery

ESL57904 Double For 'D' Size Battery

ESL57905 Double For 'AA' Size Battery

ESL57906 Single For 'AA' Size Battery

ESL57907 Stackable



### Mini Motor DC

This little yet powerful motor is idea for hundreds of electrical experiments and projects. Voltage requirements are 1.5V ~ 4.5V, 0.2A ,DC volts.

ESP59128 Power requirements : 1.5V ~ 4.5V, 0.2A

ESP59129 Power requirements : 3V ~ 6V, 0.2A

ESP59130 Power requirements : 6V ~ 12V, 0.2A



### De-soldering Pump

High sucking power, plastic body with sturdy metal rod, easy to clean and maintain.

ESP59606



### Soldering Iron

With wooden / Bakelite handle, lightweight body, element tested for high insulation, with long life

pencil bit

ESP59601 25 Watts

ESP59602 65 Watts

ESP59603 125 Watts



### Soldering Iron Stand

Soldering iron with stand

ESL57453





**Copper Wire**

Bare copper wire roll - measured by mass, lengths

Includes: 1 Spool

- ESL57928** 500g roll - 14 SWG (12 AWG) - 0.08" (2.0 mm) Dia. Approximate length is 50 ft.
- ESL57929** 500g roll, 16 SWG (14 AWG) - 0.064" (1.6 mm) Dia. Approximate length is 85 ft.
- ESL57930** 250g roll, 18 SWG (16/17 AWG) - 0.048" (1.2 mm) Dia. Approximate length is 80 ft.
- ESL57931** 250g roll, 20 SWG (19 AWG) - 0.036" (0.91 mm) Dia. Approximate length is 140 ft.
- ESL57932** 250g roll, 22 SWG (21 AWG) - 0.028" (0.71 mm) Dia. Approximate length is 225 ft.
- ESL57933** 250g roll, 24 SWG (23/24 AWG) - 0.022" (0.56 mm) Dia. Approximate length is 375 ft.
- ESL57934** 250g roll, 26 SWG (24/25 AWG) - 0.018" (0.46 mm) Dia. Approximate length is 550 ft.
- ESL57935** 250g roll, 28 SWG (29/30 AWG) - 0.0148" (0.38 mm) Dia. Approximate length is 800 ft.
- ESL57936** 250g roll , 30 SWG (32/33 AWG) - 0.0124" (0.32 mm) Dia. Approximate length is 1150 ft.
- ESL57937** 250g roll , 32 SWG (33/34 AWG) - 0.0108" (0.27 mm) Dia. Approximate length is 1500 ft.

**Chromium Resistance**

This is chromium wire that can be used in many applications in the classroom or lab. It's functional characteristics are the same as nichrome wire. It's makeup is 15% Cr, 4% Al, Balance Fe. Maximum operating temperature is 1150°C. Density is 6.74g/cm<sup>3</sup>

Many industrial and hobby hot wire foam cutters also use chromium wire. Chromium wire is also commonly used in ceramics, as an internal support structure to help some elements of clay sculptures hold their shape while they are still soft. Chromium wire is used because of its ability to withstand the high temperatures.

- ESL57943** 18 GAUGE SWG - 16/17 AWG - 0.048" DIA. Includes: (1) 125g Roll
- ESL57944** 20 GAUGE SWG - 19 AWG - 0.036" DIA. Includes: (1) 125g Roll
- ESL57945** 22 GAUGE SWG - 21 AWG - 0.028" DIA. Includes: (1) 125g Roll
- ESL57946** 24 GAUGE SWG - 23/24 AWG - 0.022" DIA.. Includes: (1) 125g Roll
- ESL57947** 26 GAUGE SWG - 24/25 AWG - 0.018" DIA. Includes: (1) 125g Roll
- ESL57948** 28 GAUGE SWG - 29/30 AWG - 0.0148" DIA. Includes: (1) 125g Roll
- ESL57949** 30 GAUGE SWG - 32/33 AWG - 0.0124" DIA. Includes: (1) 125g Roll
- ESL57950** 32 GAUGE SWG - 33/34 AWG - 0.0108" DIA. Includes: (1) 125g Roll

**Eureka Constantan Wire**

Useful for resistance coils. Wire of copper-nickel alloy having low temperature coefficient. Mass (per reel) : 125g

- ESL57938** REEL , SWG 34 (33/34 AWG) -
- ESL57939** REEL , SWG 36 (33/34 AWG) -
- ESL58031** REEL , SWG 14 (12 AWG) - 0.08" (2.0 MM) DIA.
- ESL58032** REEL , SWG 16 (14 AWG) - 0.064" (1.6 MM) DIA.
- ESL58033** REEL , SWG 18 (16/17 AWG) - 0.048" (1.2 MM) DIA.
- ESL58034** REEL , SWG 20 (19 AWG) - 0.036" (0.91 MM) DIA.
- ESL58035** REEL , SWG 22 (21 AWG) - 0.028" (0.71 MM) DIA.
- ESL58036** REEL , SWG 24 (23/24 AWG) - 0.022" (0.56 MM) DIA.
- ESL58037** REEL , SWG 26 (24/25 AWG) - 0.018" (0.46 MM) DIA.
- ESL58038** REEL , SWG 28 (29/30 AWG) - 0.0148" (0.38 MM) DIA
- ESL58039** REEL , SWG 30 (32/33 AWG) - 0.0124" (0.32 MM) DIA.
- ESL58040** REEL , SWG 32 (33/34 AWG) - 0.0108" (0.27 MM) DIA.
- ESL58041** REEL , SWG 34 (33/34 AWG) -
- ESL58042** REEL , SWG 36 (33/34 AWG) -







### Crocodile Clip With Plastic Sleeved Red Pk/10

Spring-loaded, serrated jaws, with screw to clamp end of lead held in tubular extension, both sides insulated. Length 50 mm and jaws open 9 mm, Black Colour

ESL57957	Black
ESL57956	Red



### Safety Socket For Banana Plugs

Safety socket 4mm for Banana plugs in improved design.

ESL57910	Black
ESL57911	Fdc
ESL57912	Yellow
ESL57913	Green



### Wire PVC Coated Reel (MS)

Multi-strand copper wire, flexible PVC insulated, capable of carrying current up to 5A. Supplied in rolls of 10m

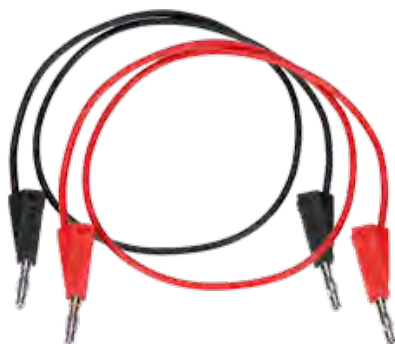
ESL58029



### Crocodile Clip Pk/10

Crocodile clip without sleeve Pk/10

ESL57955



### Banana Plugs With wire

4mm Stackable Plug Lead

#### Banana Plugs With wire

ESL57914	Length 50 cm , Red
ESL57915	Length 50 cm , Black
ESL57916	Length 25 cm , Red
ESL57917	Length 25 cm , Black
ESL57918	Length 75 cm , Red
ESL57919	Length 75 cm , Black
ESL57920	Length 100 cm , Red
ESL57921	Length 100 cm , Black



### Connecting Wire With 2 Side Crocodile clips

ESL57958/RED	Wire W/2 Side Crocodile clips 25 Cm Red
ESL57958/BLK	Wire W/2 Side Crocodile clips 25 Cm Black
ESL57959/RED	Wire W/2 Side Crocodile clips 50 Cm Red
ESL57959/BLK	Wire W/2 Side Crocodile clips 50 Cm Black
ESL57960/RED	Wire W/2 Side Crocodile clips 100 Cm Red
ESL57960/BLK	Wire W/2 Side Crocodile clips 100 Cm Black



### Connecting Wire With 1 Side 4mm Lead & 1 Side Crocodile clip

ESL57968/RED	Wire 1Side Lead 1 Side Crocodile clip , Cable length 25 cm Red
ESL57968/BLK	Wire 1Side Lead 1 Side Crocodile clip , Cable length 25 cm Black
ESL57969/RED	Wire 1Side Lead 1 Side Crocodile clip , Cable length 50 cm Red
ESL57969/BLK	Wire 1Side Lead 1 Side Crocodile clip p , Cable length 50 cm Black
ESL57970/RED	Wire 1Side Lead 1 Side Crocodile clip , Cable length 100 cm Red
ESL57970/BLK	Wire 1Side Lead 1 Side Crocodile clip , Cable length 100 cm Black





### Lead Acid Accumulator

Battery storage, in transparent case, without acid, uncharged fitted with handle.

Capacity 20 AH. Item measures 6.5" tall, 3.5" wide and 2.75" long.

Battery Storage

Transparent case, printed with product specifications

Includes removable fitted handle

Negative and positive marked terminal

ESL57994



### Battery Eliminator DC 0-6 V, 1 A

A low cost alternative to dry cell batteries. Housed in a robust ABS plastic case (IPC-0577-P). Ideally suited as a replacement in applications where batteries are normally used. Smoothed and regulated DC is available over those ranges selected by rotary switch. Output is via 4mm red and black sockets. The DC output voltage available are 1.5, 3, 4.5 and 6VDC at a maximum current of 1A.

Electrical Supply: 220-240VAC, 50-60Hz

Dimensions: 150 x 100 x 80mm overall

Mass: 0.85kg

DC Output Voltage Range: 1.5, 3, 4.5 and 6VDC

Maximum DC Output Current: 1A

ESP60841



### Battery UV Unit

Battery powered Ultra Violet light source ideally suited to demonstration use. Comes complete with on/off switch. Requires 4 x AA batteries (not supplied).

Dimensions (L x H x W): 165 x 35 x 41mm.

ESL57898



### Sandpaper Pack of 10 sheets

(sheet size in 230mm x 280mm) (grit 800)

ESL57455



### Felt Tipped Pens PK/12

Versatile Felt Tipped Pens PK/12

ESL57871



### Smart materials handling kit

The smart materials handling case offers a diverse range of innovative materials, making it an excellent choice for presentations or demonstrations. It includes a smart materials book along with essential accessories for material manipulation. The case dimensions are 46 x 33 x 15cm.

Contained within the case are:

Thermally responsive materials such as thermochromics pigment, thermo film, thermal paper (fax), phase change powder, and thermo cord.

Smart alloys and polymers, including shape memory polymer, smart putty, rare earth magnet, shape memory wire, memory wire, 2-way memory spring, conductive polymer, and smart link tubing.

Optically responsive materials and LEDs like glow-in-the-dark film, optical fiber, UV fluid, UV beads, LEDs, smart film, and lenticular film.

Fibers and woven materials such as cocoons, Kevlar fabric, carbon

fiber fabric, ripstop nylon, silk, Lycra, genuine carbon fiber sheet, and electrotexile.

Special polymers including polymorph, hydrogel, expanse, chromatic alginate, and Eco film.

'Nano' materials and others like QTC pills, chameleon nano flakes, piezo transducer, and mirror film.

ESL58091



### Pencil

Pencil PK/144

ESL57873



## Water Bath Laboratory 20L Digital

### Features:

20 liter heating capacity  
 can easily maintain a stable internal temperature  
 Up to +100° C temps, shown on an LED display  
 Overheating protection  
 High temp accuracy and adjustment with a PID controller  
 The water bath has a high temp and corrosion resistant lid, made of 304 stainless steel  
 Unit has a dedicated internal magnetic circulation pump which allows it to distribute the heat evenly and prevent any water from leaking  
 Even temperature spreading helps to avoid any bumping phenomenon while machine is used level warning

Rapid heating, the temperature remains constant after reaching the set temperature  
 High temperature accuracy with overheating protection  
 High temperature resistant and corrosion free lid made up of 304 stainless steel  
 Electronic components are easy to disassemble. Safe and easy to maintain



ESL58218

Labware

### Specifications

Display	LED	Dimension[mm]	667x349x357
Temperature range [°C]	Room temp.+5-80	Housing	Q235 Plastic panel
Temperature stability at 37°C[ °C]	±0.5	Parts touch water (including lid)	Stainless steel
Temperature accuracy at 37°C[ °C]	±0.3	Weight[kg]	16.2
Bath volume [L]	20	Voltage[V]	220V, 50/60Hz
Circulating pump	No	Heating power[W]	1000
Overheating protection	yes	Ambient temperature[°C]	+10-40
Temperature sensor	PT1000	Ambient humidity[% RH]	<80



## Water Bath 100 °C - 16 Tubes

Display, setting, and regulation precision  
 Supplied with its stainless steel rack 16 tubes  
 Heats up and maintains the temperature up to 100

### Features:

Tank: Transparent with minimal temperature level  
 Stability: ±1°C  
 Homogeneity: ±1°C  
 Setting: Setting of the set temperature by push button within 1°C accuracy up to 100°C  
 Heating: by W resistance with regulation at ±1°C  
 Power: 600 W  
 Transparent tank with holes for 16 test tubes Ø 18 mm - Maximum heating temperature ≥ 80°C - Bath temperature probe - Display of set temperature and actual bath temperature on digital screen - Tube rack and bottom plate provided - Rectangular shape allowing for stacking of water baths for easy storage - Safety device in case of overheating or lack of water - Fuse protection - Tanks and resistances protected to prevent burns - Power switch - Power cable provided

ESL58215





### Water Bath Thermostatic Digital

Digital baths are designed for general use and are economically priced without compromising quality. Simple digital controller for setting temperature in 1°C increments. Designed for immersion of flasks, bottles and racks in a highly stable temperature environment. Available in 4, 14 and 22 litre options.

#### High quality build and features

Comprising of a high quality corrosion resistant stainless steel tank, with a bright clean finish housed in a durable painted outer case. Painted surfaces feature antibacterial finish with good chemical resistance. Fitted with side lifting handles for easy lifting.

High quality build and features Comprising of a high quality corrosion resistant stainless steel tank, with a bright clean finish housed in a durable painted outer case. Painted surfaces feature antibacterial finish with good chemical resistance. Fitted with side lifting handles for easy lifting.

#### Controls and safety

Temperatures can be easily and rapidly set with the push button, wipe clean control panel in 1°C increments. Temperature setting is retained in memory, even after 'power off'. Water baths are pre-calibrated for consistent accuracy. Thermal cut out fitted in the heater. IP rated, illuminated on/off power switch and heater indication lamp. Bath fitted with non-slip rubber feet.

#### Temperature

Display/resolution: Digital LED/1°C

Temp. Range: Ambient + 5°C - 99°C

Temp. Setting: Push button

Stability/uniformity:  $\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}$

Temperature memory: Retained in memory even after 'power off'

<b>ESL58188</b>	Capacity : 4 Ltr	Dimensions External: 332w x 185d x 290h mm Internal: 300w x 150d x 150h mm
<b>ESL58189</b>	Capacity : 14 Ltr	Dimensions External: 361w x 332d x 290h mm Internal: 325w x 300d x 150h mm Water level maximum: 130mm shelf fitted working depth 115mm
<b>ESL58190</b>	Capacity : 22 Ltr	Dimensions External: 538w x 332d x 290h mm Internal: 500w x 300d x 150h mm Water level maximum: 130mm shelf fitted working depth 115mm

All models have 3 year warranty

Complete with perforated shelf for even heat distribution

Side lifting handles

UK manufactured

Accessory lids, racks and baskets available







### Water Bath Thermostatic Unstirred Digital

Clifton digital baths provide a stable temperature environment ideal for meeting quality control requirements, featuring PID temperature control for precision.

Designed for immersion of flasks, bottles and racks for a wide variety of laboratory applications.

#### High quality build and features

Comprising of a high quality corrosion resistant stainless steel tank, with a bright clean finish housed in a durable painted outer case. Painted surfaces feature antibacterial finish with good chemical resistance. Fitted with side lifting handles for easy lifting.

Heaters and temperature sensor are concealed under the tank providing a clutter free working area which is easy to wipe clean. Supplied with a removable sturdy low height stainless steel perforated shelf, for even heat distribution. The shelf provides a deeper volume of water, for standing containers and accessory test tube racks in the bath. Three year warranty and comprehensive customer support. Accessory lids available. Above 60°C it is recommended that to achieve optimum performance the bath should be covered with a lid. Clifton Range®

#### Controls and safety

Temperatures can be easily and rapidly set with the push button, wipe clean control panel, featuring a bold LED display. The high precision PID temperature controller, ensures that accuracy and repeatability is guaranteed. Temperature is set in increments of 0.1°C and retained in memory, even after 'power off'. Water bath features a thermal safety cut out which is fitted to the heater. There is an over temperature alarm automatically set at 4°C above set temperature, including a visual indicator and safety heating cut out, to protect samples from over heating. Water baths are pre-calibrated at two separate temperatures for consistent accuracy. IP rated, illuminated on/off power switch and heater indication lamp. Bath fitted with non-slip rubber feet.

#### Temperature

Display / resolution: Digital LED / 0.1°C

Temp. Range: Ambient + 5°C - 99°C

Temp. Setting: push button in 0.1°C increments

Stability/uniformity:  $\pm 0.2^\circ\text{C} / \pm 0.1^\circ\text{C}$

Temperature memory: Retained in memory even after 'power off'.

<b>ESL58192</b>	Capacity : 4 Ltr	Dimensions External: 332w x 185d x 290h mm Capacity Nominal Tank Capacity: 4 Litres	Internal: 300w x 150d x 150h mm Brimful Capacity: 6 litres
<b>ESL58193</b>	Capacity : 8 Ltr	Dimensions External: 332w x 270d x 290h mm Capacity: Nominal Tank Capacity: 8 Litre	Internal: 300w x 240d x 150h mm Brimful Capacity: 10 litres
<b>ESL58194</b>	Capacity : 14 Ltr	Dimensions External: 361w x 332d x 290h mm Capacity Nominal Tank Capacity: 14 Litres	Internal: 325w x 300d x 150h mm
<b>ESL58195</b>	Capacity : 22 Ltr	Dimensions External: 538w x 332d x 290h mm Capacity Nominal Tank Capacity: 22 Litres	Internal: 500w x 300d x 150h mm

Drain outlet fitted, large 12mm bore for fast emptying an accessory tap can be added for convenience.

All models have 3 year warranty

Complete with perforated shelf for even heat distribution

Side lifting handles

UK manufactured

Accessory lids, racks and baskets available





### Water Bath Thermostatic Unstirred Analogue

Analogue boiling baths are designed for applications that require continuous boiling. This range has the flexibility where the controls can be regulated from a

Gentle simmer to a vigorous boil.

#### High quality build and features

Comprising of a high quality corrosion resistant stainless steel tank, with a bright clean finish housed in a durable painted outer case. Painted surfaces feature antibacterial finish with good chemical resistance. The bath, which is simmer-statically controlled, is ideally suited to prolonged periods of boiling. Fitted with side lifting handles for easy lifting.

Fitted with a sheathed immersion element and thermal safety cut out. The heater is directly immersed in water providing rapid boiling. Fitted with a constant level device, that maintains a fixed level of liquid which eliminates the need to regularly top up the bath. Three year warranty and comprehensive customer support. Accessory lids available. Above 60°C it is recommended that to achieve optimum performance the bath should be covered with a lid. Deep chamber option (product code: NE1B-18W) can be fitted with an accessory tray to conveniently raise or immerse items in boiling water and is suitable for immersion of tall vessels. Clifton Range®

#### Controls and safety

Easy to use analogue dial pointer for setting temperature in 10°C increments. The bath can control the amount of boiling from a gentle simmer to a vigorous boil. Thermal cut out fitted in the heater.

Always connect the constant level with laboratory tubing to a water supply, adjust the flow to gently top up the water level, whilst maintaining boiling. IP rated, illuminated on/off power switch and heater indication lamp. Bath fitted with non-slip rubber feet.

Temperature

Temp. Range: Simmer to boiling at 100°C

Temp. Setting: analogue dial pointer

Temp. Control: Energy regulator controls the amount of boiling from a gentle simmer to vigorous boil

<b>ESL58196</b>	Capacity : 14 Ltr	<b>Dimension :</b> s (mm) Overall - 361w x 332d x 290h / Working - 325w x 300d x 150h Electrical supply: 230v Power consumption: 2500w
<b>ESL58197</b>	Capacity : 18 Ltr	<b>Dimension :</b> s (mm) Overall - 362w x 332d x 290h / Working - 325w x 300d x 200h Electrical supply: 230v Power consumption: 2500w Drain outlet: Drain outlet fitted, large 12mm bore for fast emptying Deep fill chamber: can be fitted with accessory tray to raise or immerse items into boiling water Accessory tray: ST-1 - Raise and lower sterilizing tray. SA01409 - Pair of guide rail assemblies for ST1 Tray and NE1B-18W

All models have 3 year warranty

Complete with shelf for good water circulation

UK manufactured

Accessory lids, racks and baskets available





### Water Bath Thermostatic

Clifton digital stirred baths provide a stable temperature environment ideal for meeting quality control requirements, featuring PID temperature control for precision. Designed for immersion of flasks, bottles and racks for a wide variety of laboratory applications.

High quality build and features

Comprising of a high quality corrosion resistant stainless steel tank, with a bright clean finish housed in a durable painted outer case. Painted surfaces feature antibacterial finish with good chemical resistance. The thermostirrer is robust and entire casing is constructed from stainless steel for durability.

Supplied with a removable stainless steel shelf, ensuring good water circulation throughout the chamber. Three year warranty and comprehensive customer support. Accessory lids, racks, coolers and shelves available. Above 60°C or below ambient it is recommended that to achieve optimum performance the bath should be covered with a lid. Clifton Range®

#### Controls and safety

Temperatures can be easily and rapidly set with the push button, wipe clean control panel, featuring a bold LED display. The high precision PID temperature controller, ensures that accuracy and repeatability is guaranteed. Temperature is set in increments of 0.1°C and retained in memory, even after 'power off'.

When a low liquid level is detected "FILL" message automatically appears on the display and heating is suspended. Once refilled, heating is restored and temperature control resumes automatically. There is an over temperature alarm automatically set at 4°C above set temperature, including a visual indicator to protect samples from over heating.

Water baths are pre-calibrated at two separate temperatures for consistent accuracy. Illuminated on/off power switch and heater indication lamp. Bath fitted with non-slip rubber feet.

#### Temperature

Display / resolution: Digital LED / 0.1°C

Temp. range: Ambient + 5°C - 99°C

Ambient to -20°C with accessory immersion dip cooler (DC1-300 or DC2-300)

Temp. setting: push button in 0.1°C increments

Stability/uniformity:  $\pm 0.05^\circ\text{C} / \pm 0.01^\circ\text{C}$

Temperature memory: Retained in memory even after 'power off'.

Timer : Variable 00:01 to 99.59 hh:mm.

Audible alarm and visual 'end' message

Safety feature: Low liquid level warning

<b>ESL58198</b>	Capacity : 14 Ltr	<b>Dimension</b> :s (mm) Overall - 361w x 332d x 170h / Working - 219w x 298d x 150h Electrical / power supply: 120v or 230v models available/ 1250w
<b>ESL58199</b>	Capacity : 28 Ltr	<b>Dimension</b> :s (mm) Overall - 537w x 332d x 240h / Working - 395w x 298d x 200h Electrical / power supply: 120v or 230v models available / 1250w

All models have 3 year warranty

Complete with shelf for good water circulation

UK manufactured

Accessory lids, racks and baskets available





### Water Bath Thermostatic Digital Oil Heating Circulator

Clifton® Digital Water and Oil Heating Circulator are designed for external circulation of temperature controlled water and heat transfer fluids in a closed circuit or for maintaining a stable temperature environment in the bath for the immersion of flasks, bottles and racks.

Thermocirculator can be fitted to water baths, tanks and containers using accessory Mount Bracket.

Clifton® Thermostirrer is a durable stainless steel construction, painted surfaces are powder painted with tough anti-bacterial finish with good chemical resistance. Easy to use controls that wipe clean and have an anti-bacterial finish. Immersed components are corrosion resistant. Quiet running in use and providing excellent water temperature stability. Indication of heating, over temperature alarm and timer running.

When a low liquid level is detected a "FILL" message automatically appears and heating is suspended. Once refilled, heating is restored and temperature control resumes automatically.

Over and under temperature alarms automatically protect work in the water bath, providing heater cut off, visual message and indicator.

A second safety device can be set just above the working temperature, protecting samples.

Thermocirculator pump comes with convenient push-fit and lock fittings on both inlet and outlet ports for secure external liquid circulation.

#### Controls

Featuring a bold LED display of measured temperatures in real-time and in increments of  $\pm 0.1^{\circ}\text{C}$ , using a precision PID temperature controller. Setting for water temperature only or combination of temperature and time. Timer setting variable in 1-minute increments from 00:01 [hh:mm] to 99:59 [hh:mm] with "end" message on completion of the timed period. Time and temperature settings are retained in the memory, even after the unit has been turned off.

Easy to use controls, utilising touch keypads for setting time and temperature values with indicators for heating, over temperature alarm and timer.

The heater unit can be set to run at a set temperature or commence the timer once the water reaches set temperature.

Features auto setting over and under temperature alarm protecting your work at set temperature.

Every unit undergoes a factory calibration at two temperatures for validation.

A second safety device can be set just above the working temperature, protecting samples.

<b>ESL58200</b>	Capacity : 14 ltr	<b>"Dimension :s</b> External: 361w x 332d x 170h mm Thermocirculator additional 120mm to bath height Internal: 219w x 298d x 150h mm - working area of the bath Capacity Nominal Tank Capacity: 14 Litres"
<b>ESL58201</b>	Capacity : 22 ltr	<b>"Dimension :s</b> External: 537w x 332d x 170h mm Internal: 395w x 298d x 150h mm Capacity Nominal Tank Capacity: 22 Litres"

All models have 3 year warranty

Complete with shelf for good water circulation

UK manufactured

Accessory lids, racks and baskets available







### Water Bath Thermostatic 2 Ltr Shallow, Comp. W. S. steel Perforated False Base

Clifton shallow Baths™ are available in digital or analogue option. Their small footprint provides a stable temperature environment for life science preparations. Perfect for heating small height samples such as micro tubes, micro plates and bottles.

#### High quality build and features

Comprising of a high quality corrosion resistant stainless steel tank, with a bright clean finish housed in a durable painted outer case. Painted surfaces feature antibacterial finish with good chemical resistance. The shallow chamber is perfect for heating smaller samples.

Heaters and temperature sensor are concealed under the tank providing a clutter free working area which is easy to wipe clean. Supplied with a removable sturdy low height stainless steel perforated shelf, for even heat distribution. Three year warranty and comprehensive customer support. Accessory lids available. Above 60° it is recommended that to achieve optimum performance the bath should be covered with a lid. Clifton Range®

#### Controls and safety

Digital bath option allows temperatures to be easily and rapidly set with the push button, wipe clean control panel, featuring a bold LED display. High precision PID temperature controller that ensures accuracy and repeatability is guaranteed. Temperature setting in increments of 0.1°C and temperature setting retained in memory, even after 'power off'.

Thermostatic bath option has an easy to use analogue dial pointer for setting temperature in 5°C increments.

All Shallow Baths™ have IP rated, illuminated on/off power switch and heater indication lamp. Features a thermal safety cut out which is fitted to the heater. Digital baths feature an over temperature alarm automatically set at 4°C above set temperate, including a visual indicator and safety heating cut out, to protect samples from over heating. Shallow Bath™ fitted with non-slip rubber feet.

#### Temperature

##### Digital

Display / resolution: Digital LED / 0.1°C

Temp. Range: Ambient + 5°C - 99°C

Temp. Setting: push button

Stability/uniformity:  $\pm 0.2^\circ\text{C} / \pm 0.1^\circ\text{C}$

Temperature memory: Retained in memory even after 'power off'.

##### Thermostatic

Temp. Range: Ambient + 5°C - 99°C

Temp. Setting: analogue dial pointer

Stability/uniformity:  $\pm 0.25^\circ\text{C} / \pm 0.1^\circ\text{C}$

ESL58202

Capacity : 2 ltr

**Dimension** :s (mm) Overall - 332w x 185d x 135h / Working - 300w x 150d x 65h

Electrical / power supply: 120v or 230v models available / 200w

All models have 3 year warranty

Complete with shelf for good water circulation

UK manufactured

Accessory lids, racks and baskets available





### Water Bath Thermostatic Triple

Clifton analogue Triple-baths™ feature three independently controlled unstirred water baths in one space saving unit. Ideal for heating samples in micro centrifuge tubes and for other molecular biology applications.

#### High quality build and features

Comprising of 3 high quality corrosion resistant stainless steel tanks, with a bright clean finish housed in a durable painted outer case. Each chamber can be set to a different temperature and used simultaneously. Painted surfaces feature antibacterial finish with good chemical resistance.

Triple 4 litre bath is fitted with side lifting handles for easy lifting. These shallow baths require less water and less process chemicals, so are therefore economical to use.

Heaters and temperature sensors are concealed under the tanks providing a clutter free working area which is easy to wipe clean. Supplied with 3 removable sturdy low height stainless steel perforated shelves, for even heat distribution. Triple-baths™ are available in two sizes, 3 x 2 litre and 3 x 4 litre chambers.

Accessory lids available. Above 60°C it is recommended that to achieve optimum performance the chambers should be covered with a lid. Covering the bath also reduce energy consumption and running costs. Three year warranty and comprehensive customer support.

#### Controls and safety

Easy to use analogue dial pointer for setting temperature, graduated in 5°C divisions for each tank. With 3 independent controllers, each chamber can be operated separately and simultaneously. The Triple-bath™ includes IP rated, illuminated on/off power switch and heater indication lamp for each tank.

Water baths are pre-calibrated for consistent accuracy. Thermal cut out fitted in the heater. Bath fitted with non-slip

Rubber feet.

#### Temperature

Temperature control: Analogue dial pointer - graduated in 5°C divisions

Temp. range: Ambient + 5°C - 99°C

Temp. setting: Turn dial pointer

Stability/uniformity:  $\pm 0.5^\circ\text{C}/\pm 0.5^\circ\text{C}$

ESL58203	Capacity : 2 Ltr	<b>Dimension :</b> External : 535w x 332h x 135h mm Internal: 300w x 150d x 65h mm Capacity Nominal Tank Capacity: Triple bath tanks, 2 Litres each.
ESL58204	Capacity : 4 Ltr	<b>Dimension :</b> External : 535w x 332h x 290h mm Internal: 300w x 150d x 150h mm Capacity Nominal Tank Capacity: Triple tanks, 4 Litres each

All models have 3 year warranty

Complete with shelf for good water circulation

UK manufactured

Accessory lids, racks and baskets available





### Water Bath Digital Triple-bath

Clifton digital Triple-baths™ feature three independently controlled unstirred water baths in one space saving unit. Ideal for heating samples in micro centrifuge tubes and for other molecular biology applications.

#### High quality build and features

Comprising of 3 high quality corrosion resistant stainless steel tanks, with a bright clean finish housed in a durable painted outer case. Each chamber can be set to a different temperature and used simultaneously. Painted surfaces feature antibacterial finish with good chemical resistance.

Triple 4 litre bath is fitted with side lifting handles for easy lifting. These shallow baths require less water and less process chemicals, so are therefore economical to use.

Heaters and temperature sensors are concealed under the tanks providing a clutter free working area which is easy to wipe clean. Supplied with 3 removable sturdy low height stainless steel perforated shelves, for even heat distribution. Triple baths™ are available in two sizes, 3 x 2 litre and 3 x 4 litre chambers.

Accessory lids available. Above 60°C it is recommended that to achieve optimum performance the chambers should be covered with a lid. Covering the bath also reduce energy consumption and running costs. Three year warranty and comprehensive customer support.

#### Controls and safety

Temperatures can be easily and rapidly set with the push button, wipe clean control panel. Temperature displayed clearly with bright LED display in 1°C increments. Temperature setting is retained in memory, even after 'power off'. With 3 independent controllers, each chamber can be operated separately and simultaneously.

The Triple-bath™ includes IP rated, illuminated on/off power switch and heater indication lamp for each tank.

Water baths are pre-calibrated at two separate temperatures for consistent accuracy. Thermal cut out fitted in the heater. Bath fitted with non-slip rubber feet.

#### Temperature

Display/resolution: Digital LED/1°C

Temp. Range: Ambient + 5°C - 99°C

Temp. Setting: Push button

Stability/uniformity:  $\pm 0.25^\circ\text{C}/\pm 0.1^\circ\text{C}$

Temperature memory: Retained in memory even after 'power off'.

<b>ESL58205</b>	Capacity : 2 Ltr	<b>Dimension :</b> s External: 535w x 332h x 135h mm
		Internal: 300w x 150d x 65h mm
<b>ESL58206</b>	Capacity : 4 Ltr	Capacity Nominal Tank Capacity: Triple tanks, 2 Litres each
		<b>Dimension :</b> s External: 535w x 332h x 290h mm
		Internal: 300w x 150d x 150h mm
		Capacity Nominal Tank Capacity: Triple tanks, 4 Litres each

All models have 3 year warranty

Complete with shelf for good water circulation

UK manufactured

Accessory lids, racks and baskets available





### Hinged Lid Assymoulded Lid New Style Clear Plastic

Hinged lid assymoulded lid new style clear plastic

ESL58209



### Stainless Steel Gabled Lid

Stainless steel gabled lid

ESL58210

### Test Tube Rack Stainless Steel 18 X 19mm

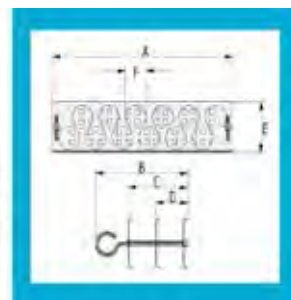
Test tube rack stainless steel 18 x 19mm

ESL58211

### Test Tube Rack Stainless Steel 12 X 32mm

Test tube rack stainless steel 12 x 32mm

ESL58212



### Water bath Irwin school

The Irwin water bath specifically designed for School Science Departments. It is built around a GrateNells deep tray and so can be stored in a GrateNells trolley. Water capacity is from 2 to 8 litres. Because of the shallow profile of the heating element, 3 litres of water gives the equivalent depth to 8 litres in a EduScience Bath, thus it reaches temperature much faster. Digital temperature control will maintain the water temperature within 1 degree Centigrade. Separate temperature sensor which can control the whole bath or an individual test tube. 500W silicone heating element. Particularly suitable for hard water areas as the element may be easily removed and cleaned. Gives additional bench space in the prep room. Light and easy to carry with safety cut-out sensor.

Even temperature distribution no stirrer required. Student proof temperature lock. Large capacity will take up to 4 test tube racks. Cost effective and practical solution for all your water bath needs. Comes complete with a lid and Z type test tube rack.

Available in either 60 degrees centigrade or 100 degrees Centigrade options.

ESL58207 60 degrees C

ESL58208 100 degrees C

### Ultrasonic Bath

- Frequency: 53KHz, • Heating: No, • Degas: Yes, • Timer (minute): 1-99, • Housing: SUS304,
- Drain : No, • Stainless steel cover: Yes
- Ultrasonic power(W): 100, • Heating power(W): No, • Degas power(W): 100,



ESL58245

Capacity : 3 Ltr

Tank size (LxWxD) cm : 24x14x10

Overall size (LxWxD) cm : 27x16x24

Tank capacity (litre): 3

ESL58246

Capacity : 6 Ltr

Tank size (LxWxD) cm : 30x15x15

Overall size (LxWxD) cm : 33x18x29

Tank capacity (litre): 6







### Water Bath Ultrasonic, Thermostatic Heated And Timed ,Ultrasonic -230V

Clifton industrial strength ultrasonic baths are designed for demanding applications and suitable for continuous operation. Featuring heating and timer controls with ultrasonic boost, degas and sweep functions. Ideal for cleaning delicate or fragile components and glassware, especially where there may be a risk of breakage as a result of manual cleaning.

#### High quality build and features

High quality stainless steel tank and construction for durability. Fitted with side lifting handles for easy lifting. Featuring ultrasonics with sweep function for perfect and even distribution of ultrasonic activity. Features an ultrasonic boost function for 25% more power. The auto-degassing function is useful for liquid changes in the tank, de-carbonating and degassing HPLC solutions.

Three year warranty and comprehensive customer support. Accessory lids available. It is recommended that to achieve consistent heating, minimise evaporation and to prevent contamination when ultrasonic bath is not in use, it should be covered with a lid. Clifton Range®

#### Controls and safety

Temperature, time and activating sonic can be easily and rapidly set with the push button, wipe clean

Control panel, featuring an illuminated bold display. Splash proof controls with a drip bar above control panel, guides spills and drips away from the easy to use temperature and timer dials.

Touch keypads for boost, sweep, degas with start/stop and on/off functions. Temperature is set with analogue dial in increments of 5°C, time values in 1 minute increments with indication of time remaining as well as a permanent 'on' function. Bath will switch off after 12 hours if no keys have been activated, to prevent unintended operation.

Heating elements are controlled electronically to reduce energy demand and prevent overheating if allowed to run dry. Illuminated on/off power switch. Bath fitted with non-slip rubber feet. This range is designed for intermittent and permanent 'on' use. Do not allow items to touch base of the tank, we recommend accessory baskets.

#### Temperature

Display / resolution : Digital LED / 0.1°C

Temp. Range : 30°C - 80°C

Temp. Setting: Analogue dial pointer in increments of 5°C

Timer: Time setting 1 minute with indication of time remaining or permanent 'on' function.

ESL58242	Capacity : 1 Ltr	<b>Dimension :</b> s (mm) Overall - 200w x 100d x 180h / Working - 190w x 85d x 60h
		Electrical / power supply: 120v or 230v models available / 60w
ESL58244	Capacity : 12 Ltr	Ultrasonic effective output: 30w
		Ultrasonic peak power / frequency: 240w / 38kHz
		Accessory basket: BSK-1
		<b>Dimension :</b> s (mm) Overall - 365w x 278d x 321h / Working - 300w x 240d x 200h
ESL58244	Capacity : 12 Ltr	Electrical / power supply: 120v or 230v models available / 800w
		Ultrasonic effective output: 200w
		Ultrasonic peak power / frequency: 800w / 38kHz
		Accessory basket: BSK-12

All models have 3 year warranty

Complete with shelf for good water circulation

UK manufactured

Accessory lids, racks and baskets available





### Drying Cabinets

Fitted with toughened glass doors.

Extras: Can be fitted with an interior fan and dial thermostat control for faster and safer drying Ideal for keeping products dry or testing electronic assemblies

SKU	Capacity Litres	Shelves Supplied	External H x W x D (mm)	Internal H x W x D (mm)
ESL58255	113	2	545 x 730 x 360	460 x 728 x 341
ESL58256	226	3	652 x 928 x 449	567 x 926 x 430
ESL58257	300	3	965 x 583 x 610	865 x 581 x 600
ESL58258	540	3	1650 x 583 x 610	1550 x 581 x 600
ESL58259	1000	4	1650 x 1110 x 585	1550 x 1108 x 580
ESL58260	1300	4	1650 x 1110 x 765	1550 x 1108 x 757

### Ovens Drying Moisture Extraction

The forced air extractor is a bolt-on unit and can be retro-fitted to our other ovens if required. (OPTIONAL EXTRA).

Standard Specifications: Temperature range 40°C to 250°C - Dial thermostat (HYD)

Stainless steel interior - Fan assisted circulation\* - Output vent for extraction tubing

Overheat safety with warning indicator - Fan assisted extract unit

Options Include: Digital control and readout (DIG) - Maximum temperature limiter

Programmable timers and controllers - Adjustable shelf ladders - 110v supply

SKU	Litres	Shelf Position	No of Shelf	External (mm) HxWxD	Internal (mm) HxWxD	Max Load Height (mm)	Power watts
ESL58262/50	50	3	2	625 x 590 x 422	325 x 490 x 315	240	1000
ESL58262/52*	52	5	5	845 x 590 x 300	470 x 490 x 193	385	1000
ESL58262/75	75	3	2	625 x 590 x 567	333 x 490 x 460	248	1250
ESL58262/100	100	4	3	735 x 590 x 567	445 x 490 x 460	360	1250
ESL58262/120	120	4	3	735 x 590 x 659	445 x 490 x 552	360	1500
ESL58262/150	150	5	3	845 x 590 x 659	555 x 490 x 552	470	1500
ESL58262/180	180	6	4	957 x 590 x 659	667 x 490 x 552	582	1750
ESL58262/210	210	6	4	957 x 590 x 749	667 x 490 x 642	582	2000
ESL58262/240	240	8	4	1178 x 590 x 659	888 x 490 x 552	803	2250
ESL58262/280	280	6	4	941 x 750 x 769	651 x 650 x 662	566	2250
ESL58262/350	350	7	4	1104 x 750 x 769	814 x 650 x 662	729	2500



### Ovens Incubators Dual Purpose

Manufactured with economy and a dual function in mind. These units are ideally suited to laboratories requiring an incubator and an oven in one convenient cabinet. These can be used as a general purpose incubator, yet at the flick of a switch can be used as either a 250°C oven or sterilizer making it the obvious cost-effective solution for many laboratories.

SKU	Litres	Shelve & Position	External mm H x W x D	Internal (mm) H x W x D	Max Load Height (mm)	Power watts
ESL58265/30	30	2/3	570 x 415 x 422	305 x 315 x 315	220	700
ESL58265/40	40	2/3	670 x 415 x 422	404 x 315 x 315	320	700
ESL58265/50	50	2/3	615 x 590 x 422	325 x 490 x 315	240	1000
ESL58265/75	75	2/3	623 x 590 x 567	333 x 490 x 460	248	1000
ESL58265/100	100	3/4	735 x 590 x 567	445 x 490 x 460	360	1000
ESL58265/120	120	3/4	735 x 590 x 659	445 x 490 x 552	360	1500
ESL58265/150	150	3/5	845 x 590 x 659	555 x 490 x 552	470	1500
ESL58265/180	180	4/6	957 x 590 x 659	667 x 490 x 552	582	1500
ESL58265/210	210	4/6	957 x 590 x 749	667 x 490 x 642	582	2000
ESL58265/240	240	4/8	1178 x 590 x 659	888 x 490 x 552	803	2000
ESL58265/280	280	4/6	941 x 750 x 769	651 x 650 x 662	566	2000
ESL58265/350	350	4/7	1104 x 750 x 769	814 x 650 x 662	729	2500



**Oven General Purpose**

Suit most laboratory applications including drying, heating and general use.

Temperature Range: 40 C to 250 °C

Fluctuation: typically  $\pm 1^{\circ}\text{C}$

Exterior: Easy clean powder coated body

Interior: Aluminium clad steel chamber as standard (Stainless steel also available)

Controls: Calibrated dial thermostat

Safety: Independent overheat safety thermostat

Warranty: Full UK 1 year parts labour

Circulation: Internal forced air.

CE compliant.



<b>ESL58268</b>	Capacity : 10 LTR	Shelf positions:1, No. Of shelves: 1, External dimension (HxWxD): 415x375x350mm, Internal dimension (HxWxD): 150x275x243mm, Max load height: 105mm, Power: 350watts
<b>ESL58269</b>	Capacity : 20 LTR	Shelf positions: 2, No. Of shelves: 2, External dimension (HxWxD): 540x375x382mm, Internal dimension (HxWxD): 275x275x275mm, Max load height: 190mm, Power: 500 watts
<b>ESL58270</b>	Capacity : 30 LTR	Shelf positions: 3, No. Of shelves: 2, External dimension (HxWxD): 570x415x422mm, Internal dimension (HxWxD): 305x315x315mm, Max load height: 220mm, Power: 750 watts
<b>ESL58271</b>	Capacity : 40 LTR	Shelf positions: 3, No. Of shelves: 2, External dimension (HxWxD): 670x415x422, Internal dimension (HxWxD): 404x315x315, Max load height: 320mm, Power: 1000 watts
<b>ESL58272</b>	Capacity : 50 LTR	Shelf positions: 3, No. Of shelves: 2, External dimension (HxWxD): 625x590x422 mm, Internal dimension (HxWxD): 325x490x315 mm, Max load height: 240mm, Power: 1000 watts
<b>ESL58273</b>	Capacity : 75 LTR	Shelf positions: 3, No. Of shelves: 2, External dimension (HxWxD): 625 x 590 x 567mm, Internal dimension (HxWxD): 333x490x460mm, Max load height: 248mm, Power: 1250watts
<b>ESL58274</b>	Capacity : 100 LTR	Shelf positions: 4, No. Of shelves: 3, External dimension (HxWxD): 735x590x567mm, Internal dimension (HxWxD): 445x490x460mm, Max load height: 360mm, Power: 1250watts
<b>ESL58275</b>	Capacity : 120 LTR	Shelf positions: 4, No. Of shelves: 3 , External dimension (HxWxD): 735x560x659mm, Internal dimension (HxWxD): 445x490x552mm, Max load height: 360mm, Power: 1500watts
<b>ESL58276</b>	Capacity : 150 LT R	Shelf positions: 4, No. Of shelves: 3, Power: 1500watts



Option



Vacuun Pump w2v20



Cold Trap V5-60

**Vacuum Oven Models****Features**

- Uses for drying moisture, condensing
- Dearing, solvent removal.
- Glass door in front, showing indoor.
- Digital PID Controller.
- Auto Tuning.
- Reliable safety device.
- Simple-to-use.
- Connects nitrogen gas with Purge Valve (Option).
- 10step Programmable
- Controller (Option).

ES-1202V5

Model	ES-1202V5	ES-1202V6
Dimension (IN)	300 x 300 x 300(H) mm	400 x 400 x 400(H) mm
Dimension (OUT)	500 x 450 x 450(H) mm	600 x 550 x 550(H) mm
Capacity	27 Liter	64 Liter
Power	220V, 3.2A, 60Hz	220V, 4A, 60HZ

**Specification**

Temp. Range	Ambient +5°C to 200°C
Temp. Controller	Digital P.I.D. controller
PID Setting	Auto Tuning.
Display	LED display
Material (IN)	Stainless steel
Material (OUT)	Steel plate with powder coating
Valve	Vacuum valve, Purge valve
Vacuum gauge	Mechanical type
Door	Silicone packing door with Large window
Shelves	AL material, 2EA
Safety device	Exclusive over temp. protector, Power Breaker





### Incubators General Purpose

Suit most laboratory applications including drying, curing, and general use.

Temperature Range : Ambient 10 °C to 100 °C

Fluctuation: typically  $\pm 0.75^{\circ}\text{C}$

Exterior: Easy clean powder coated body

Interior: Aluminium clad steel chamber as standard (Stainless steel also available)

Controls: Calibrated dial thermostat

Safety: Independent overheat safety thermostat

Warranty : Full UK 1 year parts & labour

CE compliant.

<b>ESL58295</b>	Capacity : 10 LTR	Shelf positions: 1, No. Of shelves: 1, External dimension (HxWxD): 415x375x350mm, Internal dimension (HxWxD): 150x275x243mm, Max load height: 105mm, Power: 250watts
<b>ESL58296</b>	Capacity : 20 LTR	Shelf positions: 2, No. Of shelves: 2, External dimension (HxWxD): 540x375x382mm, Internal dimension (HxWxD): 275x275x275mm, Max load height: 190mm, Power: 350watts
<b>ESL58297</b>	Capacity : 30 LTR	Shelf positions: 3, No. Of shelves: 2, External dimension (HxWxD): 570x415x422mm, Internal dimension (HxWxD): 305x315x315mm, Max load height: 220mm, Power: 500 watts
<b>ESL58298</b>	Capacity : 40 LTR	Shelf positions: 3, No. Of shelves: 2, External dimension (HxWxD): 670x415x422mm, Internal dimension (HxWxD): 404x315x315mm, Max load height: 320mm, Power: 500 watts
<b>ESL58299</b>	Capacity : 50 LTR	Shelf positions: 3, No. Of shelves: 2, External dimension (HxWxD): 615x590x422mm, Internal dimension (HxWxD): 325x490x315mm, Max load height: 240mm, Power: 500 watts
<b>ESL58300</b>	Capacity : 75 LTR	Shelf positions: 3, No. Of shelves: 2, External dimension (HxWxD): 623x590x567mm, Internal dimension (HxWxD): 333x490x460mm, Max load height: 248mm, Power: 750 watts
<b>ESL58301</b>	Capacity : 100 LTR	Shelf positions: 4, No. Of shelves: 3, External dimension (HxWxD): 735x590x567mm, Internal dimension (HxWxD): 445x490x460mm, Max load height: 360mm, Power: 750 watts
<b>ESL58302</b>	Capacity : 120 LTR	Shelf positions: 4, No. Of shelves: 3, External Dimension (HxWxD): 735x590x659mm, Internal Dimension (HxWxD): 445x490x552mm, Max load height: 360mm, Power: 1500 watts
<b>ESL58303</b>	Capacity : 150 LTR	Shelf positions: 4, No. Of shelves: 3, Max load height: 360mm, Power: 1500 watts,

### Incubator Compact

1-Series Compact Economic Incubator is suitable for personal, small food laboratory or HACCP Industry doing daily incubation of bacterial screening with Petri-Dish or Petri-Film.

ESL-10T / ESL-30T

### Incubator Compact

Heating	Gravity Convection (ESL-10T) 10 Ltr. Forced Convection (ESL-30T) 30 Ltr
Temp. Range	ambient $+5^{\circ}\text{C}$ - $50^{\circ}\text{C}$
Accuracy	$\pm 0.2^{\circ}\text{C}$ at $37.0^{\circ}\text{C}$ (ESL-10T)
Uniformity	$\pm 0.5^{\circ}\text{C}$ at $37.0^{\circ}\text{C}$ (ESL-10T)
Control	Microprocessor PID Control Auto START/STOP Timer
Sensor	Class A Pt-100 & Sensor
Safety	Over-Temperature Cut-Off Over Current Cut-Off
Material	Body: Epoxy Powder Coated Steel Chamber: Stainless Steel 304 Inner Glass Door (ESL-30T only) Including PVC Coated Wire Shelf
Electric	220 $\pm$ 10% VAC 50/60Hz 1-Phase
Control Accuracy	$\pm 0.1^{\circ}\text{C}$ Digital PID Controller with automatic START/STOP timer max. 99min 59sec / 99hr 59min / 99 day 23hr Temperature calibration, auto-tuning function Class A Pt-100 $\Omega$ sensor



Timer On / Off



Heated amb.  $+5^{\circ}\text{C}$  -  $10^{\circ}\text{C}$

Constant Temperature Controller





**General Incubator Models:**

ESL701GI-ESL702GI-ESL703GI

ESL705GI-ESL706GI-ESL707GI

**Features**

- Digital PID Controller
- Auto tuning function
- Safety devices
- Inner glass door to reduce Temp. change.
- Easy Temp. setting methods.



MODEL		ESL-701-GI	ESL-702-GI	ESL-703GI	ESL-705GI	ESL-706GI	ESL-707GI
Capacity		49 Liter	91 Liter	150 Liter	250 Liter	91 Liter X 2	91 Liter X 4
Dimension	(In)	350 x 400 x 350	450 x 450 x 450	500 x 500 x 600	500 x 500 x 1000	(450 x 450 x 450) x 2	(450 x 450 x 450) x 4
(WxDxH) (mm)	(Out)	500 x 590 x 720	600 x 640 x 820	650 x 690 x 970	655 x 690 x 1350	610 x 740 x 1480	1220 x 740 x 1480
Heater Capacity		300W	300W	500W	500W	300W x 2	300W x 4
Shelves		2EA	2EA	3EA	3EA	4EA	8EA
Temperature Range		Ambient +5°C to 60°C					
Accuracy		+/- 0.1°C					
Temperature control		Digital PID Controller					
Timer		99hr 59Min					
Thermocouple		PT 1000 Ω					
Material	(In)	Stainless steel					
	(Out)	Steel plate with powder coating					
Inner door		Safety glass of thickness 5mm					
Shelves		Adjustable Type ABS Coating					
Safety Device		Over temperature, Current protection, Sensor error detection..					
Power		220V, 50/60Hz					

**CO2 Incubator / CO2, O2 Incubator**

ESL-9170CT/9170GCT



Main Control	Touch Screen Controller
Display	7" Color LCD
Temperature Range	RT +5°C to 50°C, $\pm 0.1^\circ\text{C}$ at 37°C
CO2 Range	0 to 20%, $\pm 0.1\%$ at 5%
CO2 Sensor	Dual-Beam Non Dispersive Infra-red Sensor
Humidification	Up to 96% RH at 37°C
Dimension (in)	510(W) x 480 (D) x 705(H)mm
(out)	605(W) x 610(D) x 995(H)mm
Capacity	173 Liter
Water Jacket Volume	34 Liter
Materials (in)	Copper-blended Stainless Steel (SUS 304)
(out)	Steel Plate with Powder Coating
Door	Double, Silicone Magnetic Packing Door
Inner Door	Safety Glass Door with U-groove Packing
Door Heater Shelves	Silicone Heater, Independent Control
Shelves	3EA, Copper-blended Stainless Steel
Safety Device	Over Temp. Protector, Gas Monitor Alarm, Water Level Monitor, Power Breaker
Utility	Sample Port, Access Hole, Drain Port, HEPA Filter Unit, Flow Meter
Net Weight	98kg
Power	220V, 5A
CO2/O2 Incubator	ESL-9170GCT
O2 Range	0.1 to 20.9%, $\pm 0.1\%$ at 5%
O2 Sensor	Industrial Oxygen Sensor
Cooling System	ESL-9170CT-R (Option)
Dimension (out)	605(W) x 610(D) x 1240(H)mm
Temperature Range	20°C to 50°C, $\pm 0.1^\circ\text{C}$





### Plate of Flask

100ml Flask	36 A
250ml Flask	25 A
500ml Flask	16 A
1000ml Flask	9 EA
2000ml Flask	4 EA
Spring Rack	450 x 450 mm



### Shaking Incubator

ESL-8480SR

Less Gas-Consuming & Space-saving compact INCUBATOR

#### Features

- Noiseless & Brushless DC Motor Durable & Beltless Drum type
- Stable operation in low speed of 10RPM Reliable safety device
- Simple-to-use
- Compatible for various capacity of flask & tube Light Bank

### Light Bank Model

Model	VS-8480 SR-L
Light Bank	Compact FL 36W x 3 Unit
Light Control	24Hr. Photoperiod program

### Plate of Flask

100ml Flask	60 A
250ml Flask	40 A
500ml Flask	24 A
1000ml Flask	15 EA
2000ml Flask	8 EA
Spring Rack	760 x 470 mm



## Shaking Incubator Model

ESL8480SF - ESL8480S

#### Features

- Noiseless & Brushless DC Motor Durable & Beltless Drum type
- Stable operation in low speed of 10RPM Digital PID Controller
- Reliable safety device Simple-to-use
- Compatible for various capacity of flask & tube Light Bank ("L" Model)

Model	ESL-8480SF	ESL-8480S
Temp. Range	15C to 60°C	Ambient +5°C to 60°C
Weight	81Kg	66Kg
Power	220V, 4.5A, 60Hz	220V, 1.8A, 60Hz
Temp. Controller	Digital P.I.D. controller	
Speed Range	10-350 RPM	
Display	LED Display	
Drive system	Beltless direct drive	
Motor	Brushless D.C.Motor K-type	
Circulation Fan	3.5" convection fan x 2EA	
Dimension	(IN)	510 x 530 x 400(H)mm
	(OUT)	515 x 730 x 720(H)mm
Lid	Acrylic Blue	
Safety Device	Over temp.Protector, Door detector	
Standard plate	250ml x 25EA	
Light Bank Model	Model ESL-8480SFL	
Light Bank	40W CL x 1 Unit	
Light Control	24Hr. Photoperiod program	



### Shaking Incubator ESL-8480SR

Temp. Range	10°C to 60°C	
Temp. Controller	Digital P.I.D. controller	
Speed Range	10-350 RPM	
Display	LED Display	
Drive system	Beltless direct drive	
Motor	Brushless D.C.Motor K-type	
Circulation Fan	5" convection fan x 2EA	
Dimension	(IN)	830 x 540 x 500(H)mm
	(OUT)	1060 x 725 x 895(H)mm
Lid	Silicone Packing & Shock-absorber	
Safety Device	Over temp. Protector, Door detector	
Weight	137.5 Kg	
Power	220V, 6A, 1.2 Kw, 60Hz	
Standard plate	250ml x 40EA	
Certification	ISO 9001	



# Anaerobic Incubator

## ESI-A1 Series

- High-precision microcomputer control system to display accurate temperature inside the incubator ESI-A10
- Siemens PLC for High-performance ESI-A11
- High-precision temperature sensor and oxygen sensor to ensure accuracy ESI-A11
- High-precision temperature control module and analog module to ensure stability ESI-A11
- UV sterilizer for effective de-contamination
- Solenoid valve switch control to adjust and input essential gas
- Cultivation and operation chamber made of stainless steel
- Impact-resistant front glass window for easier observation
- Deoxidization catalyst in operation room
- Double door for cultivation chamber to add more petri plates
- Caster wheels for easier transport
- Latex gloves, Leakage protection, Over-heating alarm for user safety
- LCD screen to view parameter and button press keypad to pre-set values ESI-A10
- LCD screen to view parameter and touch screen control panel ESI-A11



- 2 shelves and wheels for cultivation chamber
- Tube-light inside the operation chamber for better illumination
- Door handle provided for easier opening and closing
- Wires and pipes inside chamber are properly concealed for user safety
- Equipped with wax-melting disinfection device and inoculating rod sterilizer ESI-A11
- USB interface provided to transfer data ESI-A11
- Stores 6 months data ESI-A11

## Anaerobic Incubator

### ESI-A10

Anaerobic Incubator ESI-A10 is a workstation especially designed to culture anaerobic micro-organisms for various studies. Features micro-computer control system, UV sterilizer, stainless steel chamber, latex gloves, tough front glass window, de-oxidization catalyst, leakage protection etc. to ensure anaerobic environment while working along with operator's safety. Within 5 min anaerobic environment is created in the cultivation chamber while it takes less than 1 hr. for the operation chamber. It is used in microbiology labs, oil industry, soil research etc.

## Anaerobic Incubator

### ESI-A11

Anaerobic Incubator ESI-A11 is a workstation especially designed to culture anaerobic micro-organisms for various studies. Features Siemens Programmable Logic Controller, UV sterilizer, stainless steel chamber, latex gloves, tough front glass window, de-oxidization catalyst, leakage protection, USB interface etc. to ensure anaerobic environment while working along with operator's safety. Within 5 min anaerobic environment is created in the cultivation chamber while it takes less than 1 hr. for the operation chamber. It is used in microbiology labs, oil industry, soil research etc.

### Applications

It is widely used to culture anaerobic micro-organism to perform various studies in soil research, pathology labs, oil industry etc.

## Specifications

SKU	ESI-A10	ESI-A11
Control System	Microcomputer control system	Microprocessor control system + Siemens PLC
Display	LCD display with button-press keypad	LCD display with touch screen control panel
Time for creating anaerobic state in sample chamber	< 5 minutes	< 5 minutes
Time for creating anaerobic state in operation chamber	< 1hr	< 1hr
Anaerobic environment maintenance time	> 12hrs (when no supply of mixed gas)	> 12hrs (when no supply of mixed gas)
Temperature Range	RT+3 to 60°C	RT+3 to 60°C
Temperature Stability	< ±0.3°C	< ±0.3°C
Temperature Uniformity	< ±1°C	< ±1°C
Display Resolution	0.1°C	0.1°C
Timing Range	1 to 9999 min	1 to 9999 min
Power Rating	600 W	600 W
Power Supply	AC 220V, 50 Hz	AC 220 V, 50 Hz
Data Storage	No	Yes
Interface	----	USB
Interior Chamber Dimension (W×D×H)	300×190×290 mm	300×190×290 mm
Operation Chamber Dimension (W×D×H)	820×660×670 mm	820×660×670 mm
Exterior Dimension (W×D×H)	1260×730×1380 mm	1260×730×1380 mm
Package Dimension (W×D×H)	1390×920×1560 mm	1390×920×1560 mm
Net Weight	240 kg	240 kg
Gross Weight	320 kg	320 kg





### Sterilizer Hot Air

Manufactured to conform with the strict requirements of hot air sterilization up to 250°C in life science laboratories.

Uses: Standard disinfection of instruments and applications is not always thorough enough in medicine and biological research. Often high temperature dry sterilization is the only acceptable method of biological cleansing.

Temperature range: 30 °C to 250 °C

Interior: Stainless steel with fan circulation

Timer : 120 minute mechanical run-back timer

Controls: PID digital and readout (DIG)

Safety: thermostat with warning indicator

500 C version is available for protein denaturation.

CE compliant.

<b>ESL58324</b>	Capacity : 50 LTR	No of shelves: 2, Shelf positions: 3, External Dimension (HxWxD): 625x590x422mm, Internal Dimension (HxWxD): 325x490x315mm, Max load height: 240mm, Power: 1000 watts.
<b>ESL58325</b>	Capacity : 75 LTR	No of shelves: 2, Shelf positions: 3, External Dimension (HxWxD): 625x590x567mm, Internal Dimension (HxWxD): 333x490x460mm, Max load height: 248mm, Power: 1000 watts.
<b>ESL58326</b>	Capacity : 100 LTR	No of shelves: 3, Shelf positions: 4, External Dimension (HxWxD): 735x590x567mm, Internal Dimension (HxWxD): 445x490x460mm, Max load height: 360mm, Power: 1000 watts
<b>ESL58327</b>	Capacity : 120 LTR	No of shelves: 3, Shelf positions: 4, External Dimension (HxWxD): 735x590x659mm, Internal Dimension (HxWxD): 445x490x552mm, Max load height: 360mm, Power: 1500 watts
<b>ESL58328</b>	Capacity : 150 LTR	No of shelves: 3, Shelf positions: 4, Power: 1500 watts

Model	ESL58478	ESL58479	ESL58480
Dimension (In)	535 x 620 x 430	620 x 710 x 520	620 x 1000 x 1290
(WxDxH) mm (Out)	D 260 x 460mm	350 x 510mm	1350 x 800mm
Capacity	25 Liter	50 Liter	80 Liter
Heater	2KW	2KW	2.5KW
Weight	48 kg	65kg	100kg
Tray Size	190 x 400 x 25mm	240 x 480 x 30mm	240 x 770 x 30mm
Tray Material	Aluminum		
Reservoir capacity	4.5 Liter	4.5 Liter	8 Liter
Klaterial (In)	Stainless steel	Stainless steel	
(Out)	Steel plate with powder coating		
Safety Device	Over temp. protector, Safety Valve		
Temp. Range	121 °C		
Pressure Range	0-2.1kgf/ cm		
Strieber	Time 60 Min(Max)		
Control System	8 Bit Microprocessor		
Power	220V, 50/60Hz		



### Table Top Autoclave

ESL58478-ESL58479 ESL58480

#### Features

- Full automation
- LED Display Safety device
- Self-test function
- Exhaustive design's gasket



### Autoclave Media

Electrically heated, 12 litre capacity bench top autoclave designed specifically for the safe and effective sterilization of media.

Dual interlocking handles prevent the lid being removed until the vessel has reached a safe pressure and temperature.

- Fully CE marked to the Medical Devices Directive 93/42/EC
- Sterilizes at 121 °C.
- Full one year warranty
- Maximum capacity liquids 500ml
- Made in the UK

Dimensions : Height: 420mm

**ESL58481** 12 Litre

**ESL58482** 9 Litre







### Electric Burner

able to work without gas -Multiple possibilities for use (heating containers, manual heating of test tubes, complex setups...)  
Efficient : Heats 100 mL of water from 30 to 100 °C in 2 minutes 30 seconds. - Maximum temperature of 700 °C. - Temperature control through integrated electronic regulator. - Power: 500 W. - Protective casing: Cold - Power supply: 230 V (2P+T). - Weight: 2.6 kg. - Dimensions (L x W x H): 280 x 180 x 125 mm. - Rod length: 300 mm. - Standard cord length: 1.50m - Patented.

ESL58417



### Hot Plate Basic I (Electric Burner) 500 W

Hot plate, electric, with variable stage less regulation of heat and overheat control , 500 W  
Input supply voltage 230 V / 50 ... 60 Hz

ESL58416

## Hot Plat ADV LCD

ESL58420

Specifications	ESL58419
Work plate Dimension [W x D]	184x184mm (7 inch)
Work plate material	Glass ceramic
Heating position	1
Heating temperature range	Room Temp.-550°C, increment 5°C
Control accuracy of work plate	±10°C
Safety temperature	580°C
Temperature display	LED
Temperature display accuracy	±1°C
External temperature sensor	PT1000 ( accuracy±0.2°C )
Heating warning	50°C
Protection class	IP21
Power	1010W
Heating Power	1000W
Voltage,Frequency	100-120/200-240V, 50/60Hz
Dimension[WxDxH]	215x360x112mm
Weight	4.5kg

Permissible Ambient temperature and humidity

5-40°C, 80%RH



### Features

- LCD screen shows temperature, Max. temperature up to 500°C
- 10-inch glass ceramic work plate provides excellent chemical-resistant performance and most efficient heat transfer
- External temperature control is possible by connecting the temperature sensor (PT 1000) with an accuracy at ±0.2°C
- The "HOT" warning will flash if the work plate temperature is above 50°C even when the hotplate is turned off
- Heating temperature: room temperature -500°C.
- Data connector : The SD card records the instrument's running data in real time.
- Timing function: the running time of the instrument can be set.



## Hot Plat Pro

ESL58418



### Features

- Maximum heating temperature is 380 °C
- High resolution LCD displays actual temperature
- Aluminum ceramic coating work plate, allowing a immediate heat transfer
- External temperature control is possible with temperature sensor PT1000

Specifications	ESL58418
Work Plate Dimensions [WnxsD]	140 X 14mm (6Inch)
Work plate material	Aluminum cover with ceramic coating
Heating position	1
Heating temperature range	Room temp.-380°C increment 1°C
Over heat Protection	420°C
Temperature, time display	LCD
Temperature display accuracy	±1°C
External temperature sensor	PT1000(±0.2°C)
Protection class	IP21
Power	510W
Heating output	500W
Voltage,Frequency	100-120/200-240V, 50/60Hz
Dimension[WxDxH]	180x320x108mm
Weight	2.2kg
Permissible Ambient temperature and humidity	5-40°C, 80%RH

## Hot Plat ADV

ESL58419

Specifications	ESL58419
Work plate Dimension [W x D]	184x184mm (7 inch)
Work plate material	Glass ceramic
Heating position	1
Heating temperature range	Room Temp.-550°C, increment 5°C
Control accuracy of work plate	±10°C
Safety temperature	580°C
Temperature display	LED
Temperature display accuracy	±1°C
External temperature sensor	PT1000 ( accuracy±0.2°C )
Heating warning	50°C
Protection class	IP21
Power	1010W
Heating Power	1000W
Voltage,Frequency	100-120/200-240V, 50/60Hz
Dimension[WxDxH]	215x360x112mm
Weight	4.5kg

Permissible Ambient temperature and humidity

5-40°C,80%RH



### Features

- LED screen display actual and accurate temperature
- Maximum temperature up to 550 °C
- Separate safety circuits with safety temperature of 580 °C
- External temperature control is possible by connecting temperature sensor (PT 1000) with an accuracy of ±0.2 °C
- Work plate provides excellent chemical- resistant performance and most efficient heat transfer
- "HOT" warning flashes when the workplate temperature is above 50 °C



## Magnetic Stirrer Pro LCD

ESL58431

High resolution LCD displays actual stirring speed  
Brushless DC motor is maintenance free  
Aluminum covered ceramic coating, corrosion resistant and easy to clean  
Digital speed control up to 1500rpm  
Maximum stirring quantity of H<sub>2</sub>O at 5L



## Magnetic Stirrer Basic

ESL58430

## Magnetic Stirrer Advance

ESL58432

Speed range of 0-1500rpm  
Maximum stirring quantity of H<sub>2</sub>O up to 10L  
Ceramic work plate provides excellent corrosion resistance

## Magnetic Stirrer Mini

Suitable for stirring small size items, necessary for all kinds of labs, especially education and R&D institution. ABS plastic case, beautiful appearance, stepless speed regulation.

Range 0~2300 R/M (No Load) Max Stirring Capacity 1000ml, stirrer Timing range 0-2300 rpm (empty load),

Max. Stirring content 1000ml Face diameter  $\Phi$ 120mm

Other technical parameters Power adapter DC6V

**Exterior Dimension :** and weight  $\Phi$ 120x49mm/500g

ESL58429



Specifications	ESL58432	ESL58430	ESL58431
Work Plate Dimensions [WxD]	184 X 184mm (7 Inch)	$\Phi$ 135mm (5 Inch)	140 X 140mm (5.6 Inch)
Work plate material	Glass ceramic	Stainless steel cover with ceramic	Aluminum cover with ceramic coating
Motor type	Shaded pole motor	Brushless DC motor	Brushless DC motor
Stirring positions	1	1	1
Max. stirring quantity[H <sub>2</sub> O]	10L	20L	5L
Max.magnetic bar[length]	80mm	80mm	40mm
Speed range	0-1500rpm	0-1500rpm	200-1500rpm
Speed display	Scale	Scale	LCD
Protection class	IP21	IP21	IP21
Motor input Power	15W	18W	2.4W
Motor output Power	1.5W	10W	1.8W
Power	30W	30W	10W
Voltage,Frequency	100-120/200-240V, 50/60Hz	100-240V, 50/60Hz	100-240V, 50/60Hz
Dimension[WxDxH]	215x360x112mm	160x280x85mm	320x180x108mm
Weight	3.8kg	2.8kg	2.2kg
Permissible Ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH	5-40°C, 80%RH





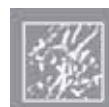
## Multi Stirring Palte 10 Analogue

ESL58435

Specifications	ESL58435
Work Plate Dimensions [WnxD]	180 X 450 mm
Work plate material	Stainless steel with silicone coating
Motor type	Brushless DC motor
Stirring positions	10
Max. stirring quantity[H <sub>2</sub> O]	0.4Lx10
Max.magnetic bar[length]	40mm
Speed range	0-1100rpm
Speed display	Scale
Protection class	IP20
Motor input Power	12W
Motor output Power	4W
Power	20W
Voltage,Frequency	100-120/200-240V, 50/60Hz
Dimension[WxDxH]	622x205x65mm
Weight	3.2kg
Permissible Ambient temperature and humidity	5-40°C, 80%RH

### Features

- Efficient, simple and safe stirring
- High performance and space-saving design to maximize the use of benchtop space and saving time by stirring multiple solutions
- Maintenance-free brushless DC motor
- Speed range 0-1100rpm
- Stainless steel work plate covered with silicone cushion, provides excellent performance of skid resistance



Skidresistance



Multiple position

### Hot Plate Magnetic Stirrer Mini

suitable for stirring small size items, necessary for all kinds of labs, especially education and R&D institution, Power adapter DC6V Exterior dimension and weight Φ120x49mm/500g

Stepless speed regulation.

Constant power heating, no-load surface temperature 120 °C A thermal protection device of 150 °C.

Range 0~2300 R/M(no load) Max Stirring Capacity 1000mL.

ESL58438







### Hot Plate Magnetic Stirrer Basic

#### Features

- Brushless DC motor is maintenance free and explosion-proof
- Digital temperature control up to 340°C
- Digital speed control up to 1500rpm
- Maximum stirring quantity of H<sub>2</sub>O is 20L
- Safety circuits provide overheating protection
- "HOT" warning flashes if plate temperature is above 50°C even when hotplate is turned off
- External temperature control is possible by connecting the temperature sensor (PT 1000) with accuracy at  $\pm 0.2^\circ\text{C}$
- Work plate with ceramic coating provides good chemical-resistant performance
- Remote function provides PC control and data transmission
- Wide variety of accessories available to choose

ESL58439



### Hot Plat Magnetic Stirrer PRO Round

#### Features

- Brushless DC motor is maintenance free and explosion-proof
- Digital temperature control up to 340°C
- Digital speed control up to 1500rpm
- Maximum stirring quantity of H<sub>2</sub>O is 20L
- Safety circuits provide overheating protection
- "HOT" warning flashes if plate temperature is above 50°C even when hotplate is turned off
- External temperature control is possible by connecting the temperature sensor (PT 1000) with accuracy at  $\pm 0.2^\circ\text{C}$
- Work plate with ceramic coating provides good chemical-resistant performance
- Remote function provides PC control and data transmission
- Wide variety of accessories available to choose
- LCD Digital Display

ESL58440R



### Hot Plate Magnetic Stirrer Pro

EduScience 380°C magnetic hotplate stirrers include all leading safety standards and is chemically-resistant with white ceramic work plate. They can be used in physical, chemical, analytical and biological laboratories.

#### Features

- Max. heating temperature is 380°C
- High resolution LCD displays actual temperature and speed.
- Brushless DC motor is maintenance free
- Aluminum cover with ceramic work plate, allows for immediate heat transfer
- External temperature control is possible with temperature sensor PT1000
- Digital temperature control with max. temperature at 380°C
- Digital speed control with max. speed up to 1500rpm
- Max. stirring quantity of H<sub>2</sub>O at 5L

ESL58440



### Hotplate Magnetic Stirrer Digital LED 280C

#### Features

- Digital temperature control with maximum temperature up to 280°C
- Digital speed control with maximum speed up to 1500rpm
- Stainless steel with ceramic coating work plate provides high chemical resistant performance
- External temperature control is possible by connecting temperature sensor (PT1000) with an accuracy at  $\pm 0.2^\circ\text{C}$
- LED display shows temperature and stirring speed
- "HOT" warning flashes if work plate temperature is above 50°C

ESL58443





Work plate Dimension [W x D]	Ø135mm (5 inch)	140x140mm (5.6 inch)	Ø135mm (5 inch)	Ø135mm (5 inch)
Work plate material	St.Steel cover with ceramic coating	Aluminum cover with ceramic coating	St.Steel cover with ceramic coating	Aluminum with ceramic coating
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor	Brushless DC motor
Stirring positions	1	1	1	1
Max. stirring quantity, [H2O]	20L	5L	3L	20L
Max. magnetic bar[length]	80mm	50mm	50mm	80mm
Speed range	0-1500rpm	200-1500rpm	200-1500rpm	15W
Speed display	Scale	LCD	LED	100-1500rpm
Temperature display	Scale	LCD	LED	LCD
Heating temperature range	Room Temp.-340°C	Room temp.+5°C - 380°C	Room Temp-280°C	LCD
Heating liquid temperature control accuracy	-	±20rpm	±1°C (<100°C)	Room temperature ~ 340°C, increment 1°C
Temperature control accuracy	-	-	±1% (>100°C)	±1°C(<100°C), ±1%(>100°C)
Overheating temperature protection	420°C	420°C	320°C	420°C
Temperature display accuracy	-	±0.1°C	±1°C	0.1°C
External temperature sensor	-	PT1000 (accuracy ±0.5°C)	PT1000 (accuracy ±0.5°C)	PT1000 (accuracy±0.2°C )
"Hot" warning	-	-	50°C	50°C
Data connector	-	-	-	RS232
Protection class	IP21	IP21	IP42	IP21
Timer function	-	-	-	1min-99h59min
Motor rating input	18W	2.4W	5W	18W
Motor rating output	10W	1.8W	3W	10W
Power	530W	510W	515W	720W
Heating output	500W	500W	500W	600W
Voltage, Frequency	100-120/200-240V, 50/60Hz	100-120/200-240V, 50/60Hz	100-120/200-240V, 50/60Hz	100-120/200-240V, 50/60Hz
Dimension [WxDxH]	160x280x100mm	320x180x108mm	150x260x100mm	260x280x100mm
Weight	2.8kg	2.2kg	1.8kg	2.8kg



## Hot Plate & Magnetic Stirrer- ADV LCD

ESL58444

### Features

- Large volume: Up to 30L of liquid on 10-inch hot plate with powerful magnetic stirring
- Glass ceramic work plate provides excellent chemical resistant performance and most efficient heat transfer
- LCD display for precise monitoring of speed and temperature. External temperature control is possible by connecting the temperature sensor (PT1000) with an accuracy at  $\pm 0.2^{\circ}\text{C}$
- Digital speed control of 100 ~ 1500rpm
- Max. heating plate temperature  $500^{\circ}\text{C}$
- The "HOT" warning will flash when the work plate temperature is above  $50^{\circ}\text{C}$  even when the hotplate is turned off
- Data connector: The SD card records the instrument's running data in real time.
- Timing function: the running time of the instrument can be set.



## Hot Plat Magnetic Stirrer LCD ADV

ESL58441

## Hot Plat Magnetic Stirrer LED ADV

ESL58442

### Features

- LCD or LED displays actual temperature & speed
- Built-in PID controller ensures safe heating of the medium with overheating protection
- Maximum heating plate temperature up to
- Glass ceramic work plate is resistant to corrosion and is easy to clean
- External temperature control is possible by connecting temperature sensor (PT1000) with an accuracy of  $\pm 0.2^{\circ}\text{C}$
- Digital speed control with maximum range of
- Outstanding brushless DC motor offers more stirring power
- Two knobs enable easy adjustment of speed and temperature
- "HOT" warning flashes when work plate temperature is above  $50^{\circ}\text{C}$  even when hotplate is turned off
- Remote function provides PC control and data transmission





Overheating protection



External sensor



Chemical resistance



Wide range of accessories



Specifications	ESL58444	ESL58441	ESL58442
Work plate Dimension [W x D]	254x254mm (10 inch)	184x184mm (7 inch)	184x184mm (7 inch)
Work plate material	Glass ceramic	Glass ceramic	Glass ceramic
Motor type	Brushless DC motor	Brushless DC motor	Shaded pole motor
Stirring positions	1	1	1
Max. stirring quantity, [H <sub>2</sub> O]	30L	20L	10L
Max. magnetic bar[length]	80mm	80mm	80mm
Speed range	100-1500rpm, resolution±1rpm	100-1500rpm, resolution±1rpm	0-1500rpm
Speed display	LCD	LCD	Scale
Temperature display	LCD	LCD	LED
Heating temperature range	Room Temp.-500°C, increment 1°C	Room Temp.-550°C, increment 1°C	Room Temp.-550°C, increment 5°C
Temperature control accuracy	±1°C(<100°C)±1%(>100°C)	±1°C(<100°C) ±1%(>100°C)	±10°C
Overheating protection	540°C	580°C	580°C
Temperature display accuracy	±0.1°C	±0.1°C	±1°C
External temperature sensor	PT1000(accuracy ±0.2°C)	PT1000(accuracy ±0.2°C)	PT1000(accuracy ±0.2°C)
"Hot" warning	50°C	50°C	50°C
Data connector	SD card	RS232	-
Protection class	IP21	IP21	IP21
Motor rating input	18W	18W	15W
Motor rating output	10W	10W	1.5W
Power	1400W	1050W	1030W
Heating output	1350W	1000W	1000W
Voltage,Frequency	100-120/200-240V, 50/60Hz	100-120/200-240V, 50/60Hz	100-120/200-240V, 50/60Hz
Dimension [WxDxH]	328x424x138mm	215x360x112mm	215x360x112mm
Weight	7.2kg	5.3kg	4.5kg
Timer function	1min-99h59min	-	-
Permissible ambient temperature and humidity	5-40°C,80%RH	5-40°C,80%RH	5-40°C,80%RH





# Magnetic Stirrer with Heating Mantle 2 in 1

ESL58462/100/250/500/1000

ESL58463/100/250/500/1000

## Advantages

- The smart magnetic stirrer can be flexibly set up with inter-changeable heating sleeves for 100mL, 250mL, 500mL, 1000mL round-bottom flask, or 100mL, 250mL, 500mL, 1000mL flat bottom beakers.
- Even more flexible configurations: as one heating magnetic stirrer, or as one heating sleeve plus one magnetic stirrer.
- Temperature self calibration function for higher temperature accuracy.
- Heating sleeve made of high-quality Aluminum silicate fiber cotton with accurate temperature control, uniform heating and corrosion resistance.
- Strengthened magnetic fields with enhanced stirring power.
- Fireproof metal outcast with higher safety level.
- Explosion-proof DC brushless motor free of maintenance and spark, and with long service life.
- The "HOT" warning will flash if the work plate temperature is above 50°C even when the hotplate is turned off, as long as the power cable is connected.
- Two independent safety circuits are designed to continuously monitor the equipment. When the sensor malfunctions and overheating occurs, an error code will be generated and the stirrer will stop heating. When the first safety circuit is shorted, the second safety circuit will cut off the power supply to ensure the safety of the operator

## Applications

• Magnetic stirrer with heating sleeve is a very popular product for laboratories in scientific research, industry and mining, food processing, biochemistry, agriculture, petrochemical, pharmaceutical, and educational aspect. It is used for heating and incubation of liquids at a certain temperature. It provides fast and uniform heating with highly precise temperature control and strong stirring power. It can serve as a magnetic stirrer with heating sleeve, or as a magnetic stirrer and a heating sleeve.



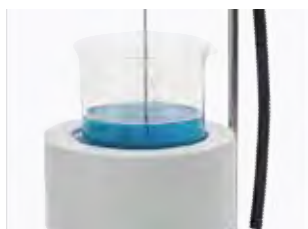
Labware

Heating Mantle model	100 ML	250 ML	500 ML	1000 ML	100 ML	250 ML	500 ML	1000 ML
Picture								
Specification	Beaker	Beaker	Beaker	Beaker	Flask	Flask	Flask	Flask
Capacity	100 ml	250 ml	500 ml	1000 ml	100 ml	250 ml	500 ml	1000 ml
Heating Mantle Inner Diameter	54.75mm	72.75mm	89.75mm	118.75mm	72.75mm	89.75mm	118.75mm	144.75mm



## Specification

Specifications	ESL58444	ESL58441
Motor type	Brushless DC motor	Brushless DC motor
Speed range [rpm]	200-1500rpm	200-1500rpm
Speed control accuracy [rpm]	±20rpm	±20rpm
Speed display	LCD	LCD
Temperature display	LCD	LCD
Temperature control range [°C]	25-280°C	25-280°C
“Hot” warning	50°C	50°C
Overheat protection [°C]	420°C	420°C
Temperature display accuracy [°C]	±0.1°C	±0.1°C
Heating liquid temperature control accuracy	±1°C(<100°C), ±1%(>100°C)	±1°C(<100°C), ±1%(>100°C)
External temperature sensor	PT1000 (accuracy ±0.2°C)	PT1000 (accuracy ±0.2°C)
Protection class	IP21	IP21
Motor input power [W]	1.8W	1.8W
Heating power [W]	210W/240W/380/440W	210W/240W/380/440W
Voltage, Frequency	100-120V,60Hz;200-240V,50Hz	100-120V,60Hz;200-240V,50Hz
Dimension [WxDxH]	295X160X160mm	295X160X160mm
Weight	3.7Kg	3.7Kg
Permissible ambient temperature	5-40°C	5-40°C
Permissible ambient humidity	80%	80%
Compatible containers	100mL、250mL、500mL、1000mL flat bottom beakers	100mL、250mL、500mL、1000mL round bottom flasks



# Hot Plat Magnetic Stirrer Multi

ESL58446



Labware

Electronic speed control for constant speed even during changes in load  
Maximum speed of 1100rpm

Max. temperature 120°C (liquid temp. 70°C)

All 10 positions are controlled simultaneously

High magnetic adhesion, Skid resistance

Maintenance-free brushless DC motor

Stainless steel work plate, covered with silicone cushion, provides the excellent performance of heating uniformity and skid resistance

cTUVus approved for UL and CSA

2 YEAR WARRANTY

The MS-H-S10 10-place multi-position hotplate stirrer features a powerful rotary drive providing consistent sample conditions across each position, diameter up to 3 inches, volumes up to 400mL/beaker, 250mL/ Erlenmeyer flask. heat only, stir only, or heat and stir simultaneously. The stirrer surface is stainless steel with a silicone anti-slip mat which is chemical resistant and easy-to-clean.

MS-H-S10 10-Position Analog Magnetic Hotplate Stirrer

## Specifications:

Work plate dimension 180x450mm

Work plate material-Stainless steel with silicone

Motor type-Brushless DC motor

Motor rating input-12W

Motor rating output-4W

Power-490W

Heating output-470W

Voltage-100-120/200-240V 50/60Hz

Stirring positions-10

Max. stirring quantity-0.4Lx10

Max. magnetic bar[length] 40mm

Speed range 0-1100rpm

Speed display Scale

Temperature display Scale

Heating temperature range Room Temp.-120°C (liquid temperature 70°C)

Overheating protection 140°C

Protection Class IP42













































































Dimension[WxDxH] 182×622×65mm

Weight 3.2kg

Permissible ambient temperature and humidity 5-40°C, 80%RH












## Specification

Cat. No.	Photo	Description	ESL58444	ESL58441 & ESL58442	ESL58439	ESL58443	ESL58440
58400001		Blue carrying plate, use with color quarter pies					
58400065		Blue Fixed ring, use with color quarter pies					
58400002		Red quarter pie, 11 holes, 4mL reaction vessel, Ø15.2 mm, 20 mm depth					
58400003		Purple quarter pie, 4 holes, 20 mL reaction vessel, Ø28mm, 24 mm depth					
58400004		Blue quarter pie, 4 holes, 30 mL reaction vessel, Ø28mm, 30mm depth					
58400005		Black quarter pie, 4 holes, 40 mL reaction vessel, Ø28mm, 43mm depth					
58400048		Green quarter pie, 6 holes, 8 mL reaction vessel, Ø17.8 mm, 26mm depth					
58400049		Golden quarter pie, 4 holes, 16 mL reaction vessel, Ø21.6 mm, 31.7 mm depth					
58401006		Reaction block for 50mL round bottom flask (one flask capacity)					
58401007		Reaction block for 100mL round bottom flask (one flask capacity)					
58401008		Reaction block for 250mL round bottom flask (one flask capacity)					
58401009		Reaction block for 500mL round bottom flask (one flask capacity)					
58400019		F101 protective over, temperature resistance of 135°C					
58400016		PT10000-A, length of 230mm					
58400136		PT1000-B, temperature sensor with glass coated, length of 230mm					
58400017		Support clamp of PT1000 Vertical bar length : 45 cm, stents length : 25 cm, Stem diameter: 10 cm					
58400540		Support clamp of PT1000 Vertical bar length : 15 cm, stents length : 18 cm, Stem diameter: 10 cm					





Cat.NO.	Photo	Name of stirrer bars	Size [mm]
58400693		Stirrer bar, cross	Ø 5 X 10
58400694		Stirrer bar, cross	Ø10 X 20
58400695		Stirrer bar, cross	Ø 9 X 25
58400696		Stirrer bar, cross	Ø 10 X 30
58400697		Stirrer bar, cross	Ø 11 X 38
58400698		Stirrer bar, cross	Ø 20 X 65
58400699		Stirrer bar, Triangular prism	Ø 14 X 25
58400700		Stirrer bar, Triangular prism	Ø 14 X 50
58400701		Stirrer bar, Triangular prism	Ø 9 X 35
58400702		Stirrer bar, Triangular prism	Ø 14 X 80
58400703		Stirrer bar, Gear shape	Ø 8 X 30
58400704		Stirrer bar, Gear shape	Ø 8 X 38
58400705		Stirrer bar, Gear shape	Ø 10 X 50
58400706		Stirrer bar, ellipse	Ø 10 X 20
58400707		Stirrer bar, ellipse	Ø 12 X 25
58400708		Stirrer bar, ellipse	Ø 11 X 30
58400709		Stirrer bar, ellipse	Ø 15 X 35
58400710		Stirrer bar, ellipse	Ø 20 X 40
58400711		Stirrer bar, ellipse	Ø 20 X 50
58400712		Stirrer bar, ellipse	Ø 22 X 70
58400713		Stirrer bar, slide round	Ø 6 X 25
58400714		Stirrer bar, slide round	Ø 6 X 30
58400715		Stirrer bar, slide round	Ø 8 X 40
58400716		Stirrer bar, slide round	Ø 8 X 50
58400717		Stirrer bar, slide round	Ø 10 X 60
58400718		Stirrer bar, slide round	Ø 13 X 80
58400719		Stirrer bar, slide round	Ø 24 X 159
58400720		Stirrer bar, Eight prism	Ø 8 X 20
58400721		Stirrer bar, Eight prism	Ø 10 X 30
58400722		Stirrer bar, Eight prism	Ø 8 X 40
58400723		Stirrer bar, Eight prism	Ø 8 X 50
58400724		Stirrer bar, Eight prism	Ø 9 X 90
58400725		Stirrer bar, round	Ø 27 X 57
58400726		Stirrer bar, round	Ø 27 X 108
58400727		Stirrer bar, round	Ø 27 X 159
58400728		Stirrer bar, round	Ø 6 X 10
58400729		Stirrer bar, round	Ø 8 X 15
58400730		Stirrer bar, round	Ø 8 X 20
58400731		Stirrer bar, round	Ø 8 X 25
58400732		Stirrer bar, round	Ø 6 X 30
58400733		Stirrer bar, round	Ø 8 X 40
58400734		Stirrer bar, round	Ø 8 X 50
58400735		Stirrer bar, round	Ø 8 X 65
58400736		Stirrer bar, round	Ø 13 X 8
58400737		Stirrer bar, crown	Ø 9 X 6
58400738		Stirrer bar remover	Length 30 cm
58400739		Stirrer bar remover	Length 25 cm

Cat.NO./Picture	ES1 Set of magnetic stirring bars	Cat.NO./Picture	ES 2 Set of magnetic stirring bars
 58400740	Stirrer bar, round, Ø6X10, 2	 58400741	Stirrer bar, round, Ø8X40, 2
	Stirrer bar, round, Ø6X15, 2		Stirrer bar, Eight prism, Ø8 X 40, 2
	Stirrer bar, round, Ø8X20, 2		Stirrer bar, Gear shape, Ø8 X 30, 2
	Stirrer bar, round, Ø8X25, 2		Stirrer bar, slide round, Ø8 X 40, 2
	Stirrer bar, round, Ø6X30, 2		Stirrer bar, ellipse, Ø20 X 40, 2
	Stirrer bar, round, Ø8X40, 2		Stirrer bar, cross, Ø9 X 25, 2
	Stirrer bar, round, Ø8X50, 2		Stirrer bar, crown, Ø9X6, 2
	Stirrer bar, round, Ø10X80, 2		Stirrer bar, round, Ø8X50, 2
	Stirrer bar, Triangular prism, Ø14 X 25, 2		Stirrer bar, Triangular prism, Ø9 X 35, 2
	Stirrer bar, Triangular prism, Ø14 X 50, 2		



## Heating Mantle Controlled

Heating mantle Control Method : Proportional Voltage Control.

Based on the user's need, before using, the temperature should be controlled by using a separate thermometer. As the heated part (heated object) is hand-woven using fibre glass, fire is prevented by a built-in Thermal protector, which automatically shuts down the product in case the inside temperature exceeds an appropriate temperature.

The product resumes normal operation when the inside temperature returns to normal. Thermal Insulation uses non-toxic asbestos-free ceramic wool (fiber glass).

There are two kinds of heated part shape like flask type and beaker type. Products installed temperature voltage controller.

Case Construction Steel, with chemically resistant powder coating Thermal Insulation Asbestos-free ceramic wool. (Fibre glass) Heating Element Ni-chrome wire

Mantle Woven glass fibre mat

Heating Element Temperature Up to 450 °C, Maximum

Supply Voltage & Frequency AC 110~220V (or 220~230V), 50/60Hz

Features

### Non-Asbestos

Heater section was hand woven in use of fiber glass.

Body case was painted by resistant power coating

Several kinds capacity

There are two kinds of Flask & Beaker

Heating Mantle & Stirrer Function( End ST Series)

Speed control from 50 RPM to 1,200 RPM

### Technical Description

Heating material : Nichrome wire

Heating Temperature : Up to 450°C(Max)

Mantle material : Woven glass fiber mat



MODEL	Capacity	Flask Dia	Dimension	Wattage	Depth	Weight
ESL58455	100mL	63-66mm	Ø145x 140(H)mm	80	40	1.4kg
ESL58456	250mL	83-86mm	Ø145 x 140(H)mm	150	50	1.4kg
ESL58457	500mL	102-105mm	Ø190 X 165(H)mm	230	65	1.6kg
ESL58458	1000mL	130-133mm	Ø190 X 140(H)mm	330	75	2.2kg
ESL58459	2000mL	165-169mm	Ø190 140(H)mm	470	100	3.5kg
ESL58460	3000mL	184-187mm	Ø190 x 140(H)mm	570	105	4.3kg
ESL58461	5000mL	221-237mm	Ø 325 x 140(H)mm	850	131	6kg

MODEL	Capacity	Flask Dia	Dimension	Wattage	Depth	Weight
ESL58455ST	100mL	63-66mm	Ø145x 140(H)mm	80	40	1.4kg
ESL58456ST	250mL	83-86mm	Ø145 x 140(H)mm	140	50	1.4kg
ESL58457ST	500mL	102-105mm	Ø190 X 165(H)mm	240	65	1.6kg
ESL58458ST	1000mL	130-133mm	Ø190 X 140(H)mm	350	75	2.2kg
ESL58459ST	2000mL	165-169mm	Ø190 140(H)mm	450	100	3.5kg
ESL58460ST	3000mL	184-187mm	Ø190 x 140(H)mm	550	105	4.3kg
ESL58461	5000mL	221-237mm	Ø 325 x 140(H)mm	800	131	6kg








## Dry Bath (Block Heater ) Digital LED

### Features

- A wide range of temperature control up to 105°C/150°C.
- Overheating protection.
- Sound reminder function.
- External temperature sensor PT1000
- Block equipped with a lid for heat preservation and prevent pollution.
- Knob adjustment is easy to operate.

ESL58448 - ESL58449

ESL58450 - ESL58451

Cat.No.	Block types	Capacity	Diameter Depth
58400459		0.2mL×30	6.4×15mm
58400410		0.5mL×20	8.2×26.4mm
58400461		1.5mL×20	11×34.7mm
58400462		2mL×20	11×34.7mm
58400412		5/15mL×12	17×48mm
58400413		50mL×4	29.8×48mm
58400522		Two-in-one block, bead bath/water bath Adapt to S1	
58400523		Two-in-one block, bead bath/water bath Adapt to S2	
58400520		Aluminum beads	



Specifications	ESL58448	ESL58449	ESL58450	ESL58451
Temperature range[° C]	Room temp+5-105	Room temp+5-105	Room temp+5-150	Room temp+5-150
Temperature setting range [° C]	25-105 25-90: ±0.3	25-105 25-90: ±0.3	25-150 25-90: ±0.3	25-150 25-90: ±0.3
Temperature control accuracy [° C]	90-105: ±0.6	90-105: ±0.6	90-150: ±0.6	90-150: ±0.6
Temperature uniformity@37°C [° C]	±0.2	±0.2	±0.2	±0.2
Power [w]	100	200	100	200
Time setting range	0-99h59min	0-99h59min	0-99h59min	0-99h59min
External sensor	Yes	Yes	Yes	Yes
Display	LED	LED	LED	LED
Power supply	110/220V, 50/60Hz	110/220V, 50/60Hz	110/220V, 50/60Hz	110/220V, 50/60Hz
External dimension[mm]	290x210x120	290x210x120	290x210x120	290x210x120
Weight[kg]	3.2	3.2	3.2	3.2
Operating temperature[° C]	+10-40	+10-40	+10-40	+10-40
Operating humidity [% RH]	<80	<80	<80	<80





### Water Still 4 Ltr /Hour Borosil Basic

Features : Abundant Output. The still provides, 4 litres/hr of distilled water produced through a power input of 3KW by a chromium plated heater housed in a horizontal Glass Boiler Distilled output is cool ensured by a high efficiency condenser. Temperature of distillate 25°C – 40°C tested for ambient room temperature of 30° C. CE MARKED Dimensions ( W x D x H) 50 cm x 15 cm x 45cm, 50 cm x 20 cm x 55cm Weight 6 kg. Approx., Power 220/240V, 50/60 Hz. Single phase. 3KW Heater. Water Supply Min. Flow rate 1 litre/min. Min. Pressure 3 p.s.i. (0.2 x 105 NM-2) Ideal for general Laboratory use- capable of producing pyrogen free water. Output 4 lit/hr Conductivity (using raw water) 3.0 – 4.0 µS/cm Conductivity (using treated water) 1.5 – 2.0 µS/cm PH 5.5 – 6.0 Distillate quality Pyrogen free Construction The stand is powder coated for long rust free Operation. Heater is a 3KW Chromium plated heater fitted with a thermostat, which shuts off automatically in case

of water supply failure. The Boiler & Condenser are designed for high efficiency and provided with threading for easy plumbing of condenser. Boiler is provided with Teflon screw cork for insitu cleaning of the boiler. All plumbing connections to the equipment are made via Screw thread connectors Our water still has following additional safety features: Gate Valve : Prevents water wastage. Flow Switch : For Boiler Safety On/Off switch with water failure indicator lamp. Packing Info: packing **Dimensions** : 50 cm x 47 cm x 46 cm. Gross - **Weight** : 12.00 kgs.

ESL58354



### Water Still 4 Ltr /Hour Metal Element

For a continuous supply of distilled water. The evaporation unit is Simply connected to an existing water supply system. Easy to operate and clean. Versions are available for 110 V/60 Hz and 230 V/50 Hz. All connections included. Without tubing.

#### Technical data :

Distilled water per hour : 4 litres, Conductivity : 1,5 – 2,5 µS, Connected load : 3 kW, Tubing : 10 mm, **Weight** : 9 kg  
**Dimensions** (H x L x W) : 600 x 190 x 190 mm

ESL58353

### Water Still 4 Ltr /Hour Borosil Basic Plus

Cap: 4 ltrs / hr, Single Safety, Pressure Temperature Switch with manual reset button- with UK PLUG and ON/OFF switch on the heater. CE Certified.



ESL58355



### Water Still 4 Ltr /Hour Borosil Basic Pro

Cap: 4 ltrs / hr, Dual Safety, with two Pressure, Temperature Switch with manual reset button- with UK PLUG , and ON/OFF switch on the heater. CE Certified.

ESL58356

### Automatic Water Still

The optimum performance AUTOMATIC WATER STILL, WATER DISTILLER & AUTOMATIC DOUBLE WATER STILL with its proven features & stylish design

This advanced Automatic Water Still, Water Distillers and Automatic Double Water Still produces and reserves distilled water on the important basis of high-effectiveness automated mechanism. With its up-to-date design and practically large-sized storage reservoir, this superior equipment offers exceptional value for end-users.

#### Individual Specification per Model

MODEL	Automatic Water Still (with the storage tank)			Water Distiller (without tank)		Automatic Double Water Still (with the storage tank)
	ESWS-701	ESWS-702	ESWS-703	ESWD-501	ESWD-502	ESWS-701D
Product Water	4 Liters / hr	8 Liters / hr	12 Liters / hr	8 Liters / hr	4 Liters / hr	4 Liters / hr
Heater	3 KW	6 KW	3 KW	9 KW	6 KW	9 KW
Cooling Water	40 Liters	70 Liters	90 Liters	40 Liters	70 Liters	50-70 Liters
External Dimension (L X D X H) (mm)	750 X 395 X 640	750 X 395 X 640	750 X 395 X 640	355 X 385 X 656	520 X 520 X 730	750 X 670 X 670
Storage Tank	20 Liters	20 Liters	20 Liters			20 Liters
Supply Voltage & Frequency	230V, 50/60Hz	230V, 50/60Hz	230V, 50/60Hz	230V, 50/60Hz	230V, 50/60Hz	230V, 50/60Hz (or 380V, 50/60Hz if customer request)
Material	Interior Construction: Stainless Steel (Boiler and Storage Tank), Exterior Construction: Steel Plate with Powder Coating					
Safety Device	Over Temperature Limit/Over Current Glass Fuse, Water Float Level Sensor/Water Supply Cut Off					

Design and Specifications can be changed without notice for quality improvement.







### Water Still 4 Ltr /Hour Borosil Silica Heater

Single Water Distillation Unit with 3 KW  
Silica Heater, Cap: 4 ltrs / hr.

Features :

Gate Valve to prevent water wastage.

Flow switch for boiler safety.

Teflon drain cock for easy maintenance.

High quality distillate.

Power coated stand.

Safety Built - in.

Silica Heater

Provided with a threaded Connection for easy, safe and quick assembly of Silica Heater.

Easy Cleaning

The Boiler is provided with a Teflon screw cock for easy cleaning of the boiler

Screw Thread Connectors

All plumbing connections are via screw thread connectors with silicon rubber 'o' rings. This facilitates easy fitting and removal of hose, without using excessive force, avoiding the danger of glassware breakage during assembly.

With over Heat protection : Pressure Temperature Switch (PTS): Shuts off the unit when water level in the boiler falls below the heater.

ESL58357



### Water Still 4 Ltr /Hour Borosil Automatic Double Distillation

Water still borosilicate Glass, Cap: 4 ltr/hr, 4 ltr/hr, Double Distillation with automatic cabinet . it is ideal for procuring ultra high purity water for demanding applications in the laboratory / tissue culture work.

it incorporates several safety devices for optimum use in hospitals and labs and has been designed to meet the International Safety Standards IEC 61010-01. Special features include Flow Control Safety, Gate Valve, Level Sensor as well as a Reservoir Level Sensor for automatic operation of the unit.

ESL58359



### Water Still 4 Ltr /Hour Borosil Automatic Single Distillation

Water still borosilicate Glass, Cap: 4 ltr/hr, single distillation with automatic cabinet . it is ideal for procuring ultra high purity water for demanding applications in the laboratory / tissue culture work. it incorporates several safety devices for optimum use in hospitals and labs and has been designed to meet the International Safety Standards IEC 61010-01. Special features include Flow Control Safety, Gate Valve, Level Sensor as well as a Reservoir Level Sensor for automatic operation of the unit.

ESL58358



### Ducted Fume Extractor Cabinet

Large ducted hood mounted local extraction cabinet designed specifically for laboratories. It is commonly used in dental & medical labs, pharmaceutical laboratories, research & development and school science laboratories.

This unit exhaust air through a flexi-duct externally to the atmosphere. Although, it's a ducted fume extractor, you don't need to have a special vent to use the BV930H-D. Its flexi-ducts can be fitted to a normal domestic vent or placed on a partially opened window.

it also provides operators with a safe workstation, as handling of all the potential harmful chemicals is done within the hood enclosure in front of the intake filter area. For artwork applications, the enclosure can accommodate a standard A1 drawing boards, which will tilt at an angle so the unit captures the overstay efficiently, keeping the surrounding working area clean.

it is designed for immediate operator protection . If outside venting isn't possible, ES also offers re-circulatory fume cabinets such as the and BV930H-C. Both units have higher filtration specifications.

Applications

The ducted fume extractor cabinet is suitable to filter fumes, vapours and particulates from:

Spray Adhesives

Conformal coatings (thin polymer film usually used to coat circuit boards), Paints, Monomers, Resin, Sealants, Solders, Light Grinding , Organic Solvents, Cleaners, Hazardous powders & particulates.

ESL58382





### Bench Top Environment Cabinet Enclosure

Sealed environment enclosure for sensitive sample handling -NO Transfer Hatch, Supplied with Nitrite glove ports, 2 x 8mm push-fit gas connections and internal power socket. Green Base

ESL58371



### Ducted Fume Extractor Cabinet 2

it is ideal for use with spray adhesives, conformal coatings and paints, monomers, hazardous powders and particulates, resins, sealants, solders, light grinding particles, organic solvents and cleaners etc.

All handling and/or use of potentially harmful substances is carried out within the hood enclosure in front of the intake filter area. For artwork applications, standard A2 drawing board can be placed within the hood enclosure. The board fits at an angle for efficient overspray capture.

These fume cabinets are designed for immediate operator protection whereby 'large' particulates (> 5 microns) are filtered out and 'fine' particulates (<5 microns) together with odours, gases, vapours and fumes within the hood enclosure are exhausted to atmosphere via the flexi-duct(s).

The Flexi-duct can be fixed to a standard domestic vent or simply placed through a partially open window to facilitate portability and/or convenience. Key Features, Can accommodate standard drawing boards, Clear polycarbonate panel for protection

Hood lighting

ESL58386



### Ducted Spray Booth

It is ideal for applications that include filtration of aerosol adhesives (glue booth for spray mounts), aerosol lacquers and fixatives and airbrush sprays applied to artwork up to A1 size. A1 drawing boards can be placed into the hoods at an angle for efficient over-spray capture. The workstation hood also accommodates prototypes, models, ceramic parts, PCB's etc., placed onto the hood base to be sprayed, soldered, cleaned, glued, moulded, sanded etc.

These cabinets are designed for studio / classroom / workshop cleanliness and for immediate operator protection whereby 'large' particulates (> 5 microns) are filtered out and 'fine' particulates (<5 microns) together with odours, gases, vapours and fumes within the hood enclosure are exhausted to atmosphere via the flexi-duct(s).

#### Key Features

For artwork applications, standard A1 drawing boards can be placed within the hood enclosure. The boards fit at an angle for efficient over-spray capture.

3D items, models, printed circuit boards etc. may be placed onto the hood base for spraying, cleaning, sanding, gluing etc. The Flexi-ducts can be fixed to a standard domestic vent(s) or simply placed through a partially open window to facilitate portability or convenience.

With the aid of a "Y" piece the 2 ducts can be placed through one hole in the wall.

Why choose the glue booth extraction unit?

The BV100H-D hood mounted extraction unit, like all ES filtration and extraction systems carries a lifetime guarantee. The unit has been designed to make sure it's quiet in operation and can be assembled in seconds. Simply place onto a desk, bench or trolley and then plug in and switch on to start extracting particulates from applications like glue over-spray and aerosol adhesives.

How does it filter harmful substances and solvent?

ESL58390



### Particle Filter Ifa2p (Pack Of 6)

ack of 6 particle filters IFA2. For general spray and dust particle capture

ESL58402





### Spray Booth

it is general purpose hood mounted filtration cabinet and workstation for light aerosol spray and airbrush use for fume/vapour adsorption and dilution. It designed for use within art, graphics, design technology areas, crafts and modelling. It has a big working space and can accommodate up to an A1 size artwork, as well as prototypes, scale models, ceramics, PCBs and more.

It will extract fumes and filter particles created by: Aerosol Adhesives - Lacquers - Fixatives - Airbrush Sprays - Solders - Light Grinding - Key Features - A1 drawing boards can be placed into the hoods at an angle for efficient overspray capture.

The workstation hood also accommodates prototypes, models, ceramic parts, PCB's etc, placed onto the hood base to be sprayed, soldered, cleaned, glued, moulded, sanded etc.

Included : BV100H Filter unit with 2x axial fans - Hood Enclosure

1 x Particulate filter - 1 x Charcoal Impregnated fibre filter

Power Lead - Data/Warranty Booklet

Dimensions: 950x680x615 (wxhxd) [internal] 955x740x730 (wxhxd) [overall] - 35kg Weight

Description : Steel construction finished in grey – fan/filter unit mounted onto hood enclosure – particulate filter – carbon impregnated fibre filter – 2 x axial fans, external rotor motor type brushless, UL, VDE and CSA approved – sealed electrical wiring and switch, downstream of filters.

Air Volume at Free Air: 650 m3/hr - Ave. Air Velocity at Filter Face : 0.50 m/sec - Ave. Air Velocity at Hood Face: 0.3 m/sec - Fan Motor Spec: 230V, 50Hz, 90W, 115V 60Hz 84W - Filters : Particle Filter – IFA2, Charcoal Filter -CHA2, Filter Kit – FKA2 - Noise Level LAeq dB(A): 61 db(A)

ESL58409

### High Efficiency Filter Cabinet

This is a high-efficiency filter cabinet with acrylic capture shield to contain and filter fumes and Particles within dental labs, electronic design, pharmaceutical labs, and classroom environments.

Included : Filter unit with centrifugal fan - Acrylic Spray Shield - 1 x Particulate filter

1 x Activated Carbon filter - Power Lead - Data/Warranty Booklet - Folding clear Polycarbonate plastic fume shield Carry handle - Sturdy steel construction

Dimensions : 500x385x530 (wxhxd) - 25kg Weight

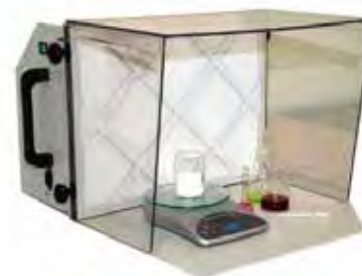
Description : Fan/filter casing (steel construction finished in grey) – clear PETG folding plastic fume shield particulate (Intake Filter) – 3.5kg bonded carbon filter

centrifugal blower, external rotor motor type brushless, UL, VDE and CSA approved sealed electrical wiring and switch, downstream of filters.

Air Volume at Free Air : 355m3/hr - Ave. Air Velocity at Filter Face: 0.55m/sec - Ave.

Air Velocity at Shield Face : 0.38m/sec - Filters : FA3 Particle Filter, AC200 Activated Carbon Filter. EPA Fine Particle filter available as optional extra and upgraded HEPA - Fan Motor Spec : 230V 50Hz 105W - Noise Level LAeq db(A) : 60

ESL58394



ESL58398



### Water Swan Neck Tap Cold With Lever

Swan Neck Tap - Cold with Lever

ESL58550

### Water Swan Neck Tap Hot

Swan Neck Tap - Hot

ESL58551



### Water Mixer Swan Neck Tap With Lever

Swan Neck Mixer Tap with Lever

ESL58549



### Gas Tap 2 Way 90 Degree

Gas tap double for bench mounting

ESL58558



### Gas Tap 2 Way 180 Degree

Gas tap double for bench mounting

ESL58559







# Vortex Mixer

ES Vortex Mixers are ideal instruments for mixing liquid components in tubes, resuspension of cells, using an eccentric mechanism. They are widely used in biological and chemical analysis applications.

## Vortex Mixer Adjustable Speed

ESL58495

## Vortex Mixer Fixed Speed

ESL58494

### Features:

- Touch operation or continuous mode
- Variable speed control from 0 to 2500rpm (ESL58495)
- Fixed Speed 2500rpm (ESL58494)
- Used for various mixing applications with optional adapters (ESL58495)
- Specially designed vacuum suction feet for body stability
- Robust aluminum-cast construction



Wide range of accessories



### Standard top (Default)

for  $\varnothing 30$ mm tubes and small vessels

Cat. No. ES000034

Specifications	ESL58495 (Adjustable speed)	ESL58494 (Fixed speed)
Voltage	100-120V/200-	100-120V/200-
Power	60W	60W
Mixing motion	Orbital	Orbital
Orbital diameter	4mm	4mm
Motor type	Shaded pole motor	Shaded pole motor
Motor rating input	58W	58W
Motor rating output	10W	10W
Speed range	0-2500rpm	2500rpm
Speed display	Scale	-
Run type	Touch operation/ Continuous	Touch operation/ Continuous
Dimension[W×H×D]	127×130×160mm	127×130×160mm
Weight	3.5kg	3.5kg
Permissible ambient temperature	5-40°C	5-40°C
Permissible relative humidity	80%RH	80%RH
Protection class	IP21	IP21






<b>VT1.3.1 tube adapter</b>	<b>Cat. No. 58490020</b>
for 48 test tubes, Ø6mm (1mL)	
<b>VT1.3.2 tube adapter</b>	<b>Cat. No. 58490021</b>
for 15 test tubes, Ø10mm (1.5-2mL)	
<b>VT1.3.3 tube adapter</b>	<b>Cat. No. 58490022</b>
for 16 test tubes, Ø12mm (5mL)	
<b>VT1.3.4 tube adapter</b>	<b>Cat. No. 58490023</b>
for 8 test tubes, Ø16mm (10mL)	
<b>VT1.3.5 tube adapter</b>	<b>Cat. No. 58490024</b>
for 8 test tubes, Ø20mm (10-15mL)	
<b>VT1.3.6 Platform pad</b>	<b>Cat. No. 58490043</b>
Ø99mm, multiple small tubes and vessels	
<b>VT1.3.7 vacuum chuck</b>	<b>Cat. No. 58490158</b>
made of rubber	

### Application of accessories

Accessories	Adjustable speed model (0-2500rpm)	
	Touch mode (High speed area)	Continuous mode (Low speed area)
VT1.1	Y	Y
VT1.2 + VT1.3.1	Y	
VT1.2 + VT1.3.2	Y	
VT1.2 + VT1.3.3	Y	
VT1.2 + VT1.3.4	Y	
VT1.2 + VT1.3.5	Y	
VT1.3 + VT1.3.6	Y	
VT1.3 + VT1.3.1		Y
VT1.3 + VT1.3.2		Y
VT1.3 + VT1.3.3		Y
VT1.3 + VT1.3.4		Y
VT1.3 + VT1.3.5		Y

<b>VT1.3.8 tube adapter</b>	<b>Cat. No. 58490395</b>
for 24 holes test tubes, Ø 10mm (1.5-2mL)	
<b>VT1.3.9 PCR tube adapter</b>	<b>Cat. No. 58494185</b>
for 56 test PCR tubes, strips of 8, Ø5mm (0.1mL-0.5mL)	
<b>VT1.3.10 tube adapter</b>	<b>Cat. No. 58490855</b>
for 4 holes test tubes, Ø28mm (50mL)	
<b>VT1.3.11 Tube adapter</b>	<b>Cat. No. 58490862</b>
12XØ9.8mm+12XØ6.6mm+12XØ5mm (1.5/2.0/0.5/0.2mL)	
<b>VT1.3.12 Large Platform Multi-Specimen Test Tube Adapter</b>	<b>Cat. No. 58490875</b>
44 holesXØ5mm+55 holesXØ6.6mm+30 holesXØ9.8mm (1.5/2.0/0.5/0.2mL)	
<b>VT1.2 Tube holding rod</b>	<b>Cat. No. 5849044</b>
used with tube adapters	
<b>VT1.3 Universal top plate</b>	<b>Cat. No. 58490505</b>
Ø 100mm	

<b>PS1.0 Microplate clamp</b>	<b>Cat. No. 58494342</b>
	





## Technical Specifications :

Shaking mode	orbital shaker
Diameter (mm)	4.5
Shaking mode	orbital
Operation mode	touch
Shaking volume ml (1 pcs tube)	Max.80
Tube diameter (mm)	Max.30
Operating environment	5-40°C 80%RH Mzx.
Shaking speed(rpm) (fixed)	3000
Power Supply	AC100-240V,50/60Hz
Max Power(W)	5
Exterior Dimension(mm)(φxH)	92x81
NW	0.55kg
Protection Class	IP43

## Mini Vortex Mixer

**Application :** Economical and compact tube shaker with jog function. The compact and compact design is a test tube mixer for shaking and mixing a small amount of samples. It can be used for shaking test tubes, centrifuge tubes, Eppendorf tubes, etc., and the mixing effect is remarkable. It is one of the indispensable tools in the laboratory.

**Main features:** • Touch working mode. • Fixed speed 3000rpm. • The shell is made of engineering plastics, resistant to chemical corrosion, • Exquisite aluminum-zinc base, stable operation. • Small and beautiful. • DC brushless motor, stable performance.

ESL58493

## Paddle Blender

Application :

Food microorganisms, analysis of animal tissues, biological samples, homogenization of cosmetics, homogenization of meat, fish, vegetables, and fruits; pharmaceuticals, clinical, molecular, toxin and bacteria detection and other fields..

**Main features:**

- Large-screen LCD display, which is convenient to operate and can store 8 groups of work programs.
- Intelligent control, the homogenization speed and time can be controlled.
- The glass transparent window is easy to observe, and the fully open door is easy to clean.
- The sample has no touch with the homogenizer. If there is no sample leakage, system cleaning is not needed.
- Homogeneous soft, no pollution, no damage, no heating, no need for sterilization, no need to wash utensils.
- With strong sound insulation capability.



## Technical Specifications:

Model	ESL58545	ESL58546	ESL58547
Control model+Data storage	PID control+8 groups programs	PID control+8 groups programs	PID control+8 groups programs
Temperature range(°C)	/	/	RT-60°C
Sterilization	/	253.7nm	253.7nm
Net Weight(kg)	24	24.5	25
Display mode	4.3 inches LCD Screen display	4.3 Inches LCD Screen Display	4.3 Inches LCD Screen display
Paddle time	0.1-99h59m59s or continuously operation	0.1-99h59m59s or continuously operation	0.1-99h59m59s or continuously operation
Paddling time (times/s)	3-Dec	3-Dec	3-Dec
Capacity(ml)	3-400	3-400	3-400
Sterilization bag size(cm)	17x30	17x30	17x30
Paddle material	SS+Anti-corrosion spray	SS+Anti-corrosion spray	SS+Anti-corrosion spray
Paddle distance	0-50mm adjustable	0-50mm adjustable	0-50mm adjustable
Start mode	Soft start	Soft start	Soft start
Pause function	yes	yes	yes
Voltage/Power	220V/200W	220V/250W	220V/500W
Anti-pinch function	With automatic stop anti-pinch function	With automatic stop anti-pinch function	With automatic stop anti-pinch function
Other functions	Removable window + tempered glass safety door	Removable window + tempered glass safety door	Removable window + tempered glass safety door
Exterior Dimension(mm)	460*250*330	460*250*330	460*250*330



# Rotator

ES rotators give gentle but effective mixing of biological samples held in 1.5mL to 50mL tubes, and are used in a variety of applications including immune precipitations, prevention of blood coagulation, latex diagnostics, etc.

## Digital Rotator LCD

ESL58490

### Features

- Electronic adjustment of speed and time
- LCD display of speed and time
- Speed range from 10 to 70rpm
- Rolling action, gives gentle but effective mixing
- Adjustable mixing angle from 0 to 90°
- A wide variety of accessories are available

## Economical Rotator

ESL58489

### Features

- Provides gentle and effective mixing of biological samples
- Adjustable speed range from 0 to 80rpm
- A wide variety of accessories are available



Labware



LCD display



Adjustable angle



Wide range of accessories



Specifications	ESL58490	ESL58489
Motor type	DC motor	DC motor
Tilt angle	0-90°	-
Speed range	10-70rpm	0-80rpm
Speed display	LCD	Scale
Timer display	LCD	Scale
Timer	1-1199min	-
Operation mode	Continuous / timer	Continuous
Voltage	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	40W	20W
Dimension [D×W×H ]	280×210×300mm	300×220×310mm
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH
Protection class	IP21	IP21



# Tube Roller

## LCD Digital Tube Roller

ESL58487

### Features

- LCD displays the speed and time
- Speed range of 10-70rpm
- Six roller design for gentle rolling and easy to clean
- Continuous or timer operation



## Tube Roller

ESL58486

### Features

- Speed range of 0-70rpm
- Six roller design for gentle rolling and easy to clean

ES tube rollers provide a gentle and highly efficient rolling motions, ideal for mixing blood samples, viscous substances and liquid-solid suspensions. Used in a variety of applications, such as the prevention of blood coagulation, immune precipitation, etc.



LCD display



Timer



Specifications	ESL58487	ESL58486
Amplitude	24mm	24mm
Motor type	DC motor	DC motor
Rocking motion	Rocking and rolling	Rocking and rolling
Max. load capacity	4kg	4kg
Number of rollers	6	6
Roller size[length]	280mm	280mm
Speed range	10 -70rpm	0-70rpm
Speed display	LCD	Scale
Timer	Yes	-
Timer display	LCD	-
Time setting range	1-1199min	-
Operation mode	Continuous/timer	Continuous
Voltage	100-240V,50/60Hz	100-240V,50/60Hz
Power	30W	25W
Dimension [D×W×H]	450×260×120mm	450×260×120mm
Weight	5.1kg	4.5kg
Permissible ambient temperature and humidity	5-40°C,80%RH	5-40°C,80%RH
Protection class	IP21	IP21







ESL58497/10



ESL58497/4

# Orbital Shaker

## LCD Digital Orbital Shaker

ESL58497/10

ESL58497/4

### Features

- Independent LCD display for speed and time
- Compact footprint
- Provides smooth and uniform shaking
- Two options: 7.5 kg (O330) with platform and 2.5kg (O180) with platform speed range 100-500 rpm and 100-800 rpm
- Continuous or timer operation mode
- Maintenance- free brushless DC motor
- Over speed detection and protection
- Wide range of optional platform for flasks, and other popular vessels
- Remote function provides PC control and data transmission
- Free software for PC control & data logging

### Applications

Suitable for mixing in culture dishes, flasks and beakers. Ideal for aeration and extraction applications. It can be used in environmental chambers and CO2 incubators.



Orbital Motion

Specifications	ESL58497/10	ESL58497/4
Orbital diameter	10mm	4mm
Max. load capacity (with platform)	7.5kg	2.5kg
Motor type	Brushless DC motor	Brushless DC motor
Motor input power	28W	28W
Motor output power	15W	15W
Speed range	100-500rpm	100-800rpm
Speed display	LCD	LCD
Timer display	LCD	LCD
Time settings range	1min-99h59min	1min-99h59min
Voltage, Frequency	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	30W	30W
Weight	12kg	8.1kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH
Dimension[W×D×H]	370×420×100mm	300×340×100mm
Protection class	IP21	IP20
Data connector	RS232	RS232



# Shaker

## Rocking Shaker Platform Fixed

ESL58499

### Features

- Double-screen display for time and speed respectively
- Compact footprint
- Provides smooth and uniform shaking
- Two options :  
9.8kg (O330-M) and speed range 70-400rpm, 3.1kg (O180-S) and speed range 40-200rpm
- Continuous or timer operation mode
- Maintenance-free brushless DC motor
- Over speed detection and protection



## Rocking Shaker Platform LED

ESL58498

### Applications

Orbital Shaker is ideal for applications like bacterial suspension, solubility studies, growth of bacteria and yeast, extraction procedures, washing procedures, diagnostics tests, hybridization, general mixing, staining & destaining, mixing, and extracting.

It is suitable for almost any vessel from micro-centrifuge tubes through petri dishes and microplates to conical flasks.

ESL58498



Orbital Motion



# Shaker

ESL58498 / ESL58499



**Basic Model  
(fixed plate)**



**Multifunctional Model  
(multiple plate are optional)**

Labware

Specifications	ESL58498	ESL58499
Orbital diameter	20mm	10mm
Max. load capacity (with platform)	2kg	3kg
Motor type	Brushless DC motor	Brushless DC motor
Motor input power	20W	20W
Motor output power	16W	15W
Speed range	40-200rpm	70-400rpm
Speed display	LED	LCD
Timer display	LED	LCD
Time settings range	1min-99h59min	1min-99h59min
Voltage,Frequency	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	20W	25W
Weight	3.1kg	9.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH
Dimension[W×D×H]	294×348×123mm	420×370×100mm
Protection class	IP21	IP21
Work plate Dimension [W x D]	268x268mm	335×335mm



# Shaker

ESL58500/10

## LCD Digital Linear Shaker

### Features

- **Efficient Mixing:** Employing a linear reciprocating shaking action ensures thorough and even mixing of samples within containers, enhancing experiment reliability and precision.
- **Versatile Capacity:** Offering two choices with different load capacities, suitable for experiments of various scales and sample handling needs, catering to diverse experimental requirements.
- **User-Friendly Operation:** The device is equipped with an independent LCD display, simultaneously presenting speed and time, facilitating an intuitive operation, allowing you to effortlessly oversee the experimental process.
- **Broad Speed Range:** It encompasses a wide speed range, enabling speed adjustment based on specific experimental demands, ensuring optimal outcomes.
- **Reliability:** Utilizing a maintenance-free brushless DC motor reduces equipment maintenance needs and extends its operational lifespan.
- **Safety Measures:** Featuring over-speed detection and protection functions, guaranteeing the equipment operates safely within prescribed parameters, mitigating potential issues.
- **Diverse Selection:** Providing multiple platform options, accommodating various container types and sizes, augmenting flexibility and diversity.

### Applications

Suitable for mixing in culture dishes, flasks and beakers. Ideal for aeration and extraction applications.

It can be used in environmental chambers and CO<sub>2</sub> incubators.

ESL58500/10



Linear Motion

Specifications	ESL58500/10
Amplitude	10mm
Max. load capacity (with platform)	7.5kg
Motor type	Brushless DC motor
Motor input power	28W
Motor output power	15W
Speed range	100-350rpm
Speed display	LCD
Timer display	LCD
Time settings range	1min-99h59min
Voltage, Frequency	100-240V, 50/60Hz
Power	30W
Weight	13.5kg
Permissible ambient temperature and humidity	5-40°C, 80%RH
Dimension[W×D×H]	370×420×100mm
Protection class	IP21
Data connector	RS232







ESL58500/4



ESL58500/20

# Shaker

## Digital Linear Shaker LCD

ESL58500/4

## Digital Linear Shaker LED

ESL58500/20

### Features

- Ensure uniform mixing to enhance experiment reliability and accuracy. Provide different load capacities suitable for experiments of varying scales and sample processing, meeting diverse experimental needs.
- Independent display screen, simultaneously showing speed and time, user-friendly operation for easy control of the experiment process.
- Offer a wide range of speed settings that can be adjusted according to specific experimental requirements to ensure optimal results.
- Maintenance-free brushless DC motor for extended lifespan.
- Equipped with safety speed protection features.
- Provide various platform options to accommodate a variety of container types and sizes, increasing flexibility and versatility (SK-L180-Pro).

### Applications

Suitable for mixing in culture dishes, flasks and beakers. Ideal for aeration and extraction applications. It can be used in environmental chambers and CO2 incubators.



### Linear Motion

Specifications	ESL58500/4	ESL58500/20
Amplitude	4mm	20mm
Max. load capacity(with platform)	2.5kg	2kg
Motor type	Brushless DC motor	Brushless DC motor
Speed range	100-350rpm	40-200rpm
Speed display	LCD	LED
Timer display	LCD	LED
Time settings range	1min-99h59min	1min-99h59min
Voltage Frequency	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	30W	20W
Motor input power	28W	16W
Motor output power	15W	10W
Weight	8.1kg	3.4kg
Permissible ambient temperature and humidit	5-40°C, 80%RH	5-40°C, 80%RH
Dimension[W×D×H]	300X340X100mm	294X348X130mm
Protection class	IP21	IP20
Data connector	RS232	-



# Shaker

## Digital Rocking Shaker 9" LCD

ESL58501/9

## Digital Rocking Shaker 7" LED

ESL58501/7

### Features

- Rocking motion angle 9°(R330-Pro) and 7°(R1807-S)
- Two options :  
10kg (R330-Pro) and speed range 10-70rpm, 2kg (R1807-S) and speed range 10-80rpm
- Double LCDs/LEDs for independent display of time and speed
- Continuous or timer operation mode
- Electronic time switching clock: 1min-99h59min
- Wide range of platforms for use with a variety of vessels(R330-Pro)
- Fixed work plate(R1807-S)
- Simple appearance, save operating space

### Applications

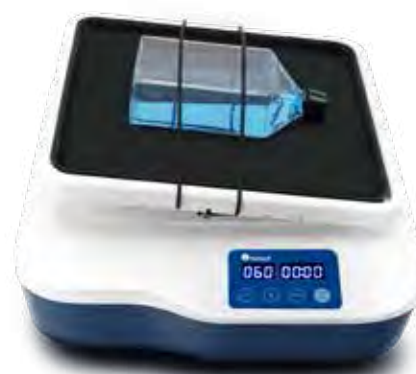
Designed for time-dependent and low rpm sensitive shaking applications such as ELISA washes, enzyme immunoassays, protein synthesis, hybridization staining/destaining gels, immune precipitation and Western blots, cell culture, pharmaceutical profiling, etc.



Rocking Motion



ESL58501/9



ESL58501/7

Specifications	ESL58501/9	ESL58501/7
Tilt angle	9°	7°
Max. load capacity(with platform)	10kg	2kg
Motor type	DC motor	DC motor
Motor input power	40W	20W
Motor output power	24W	16W
Speed range	10-70rpm	10-80rpm
Speed display	LCD	LED
Timer display	LCD	LED
Time settings range	1min-99h59min	1min-99h59min
Voltage, Frequency	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	50W	20W
Weight	9kg	3.1kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH
Dimension[W×D×H]	360×410×200mm	294×348×123mm
Protection class	IP21	IP21



# Shaker

## Digital 3D Shaker LCD

ESL58496/9

ESL58496/10



ESL58496/9



ESL58496/10

### Features

- Provide a gentle three-dimensional motion shaker at a fixed tilt angle
- Anti slip silicone disc surface, better anti slip effect, and better sample processing effect
- Adjustable rotational mixing speed
- Independent LCD/LED display of time and speed
- Incubator compatible
- Various platform accessories (D3309-Pro)

### Applications

3D shaker used for uniform shaking mixing in flasks, culture flasks, petri dishes and tubes. Ideal for culturing a variety of cell cultures, DNA extractions, distributing of cells and gel staining & destaining of cells.

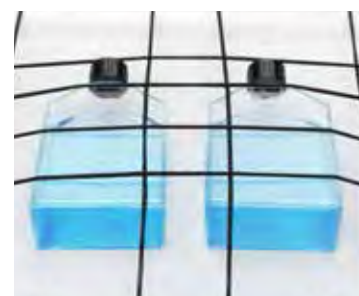


Wide range of accessories



3D Motion











Specifications	ESL58496/9	ESL58496/10
Tilt angle	9°	10°
Max. load capacity(with platform)	5kg	3kg
Motor type	DC motor	Brushless DC motor
Motor input power	40W	16W
Motor output power	24W	10W
Speed range	10-70rpm	10-80rpm
Speed display	LCD	LED
Timer display	LCD	LED
Time settings range	1min-99h59min	1min-99h59min
Voltage,Frequency	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	50W	20W
Weight	9kg	3.7kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH
Dimension[W×D×H]	360×430×106mm	294×348×170mm
Protection class	IP21	IP20



Cat. No.	Description	ESL58497/10	ESL58500/10	ESL58501/9	ESL58496/9	ESL58499	ESL58497/4	ESL58500/4	ESL58500/20 Multifunctional models
5840155	SK330.5, Dish platform with non-slip mat and fixed string (8pcs) Dimension[WxD]: 30x28.5cm	■	■	■	■				
58402835	Silicone mattress for 16x5-15mL tubes, use with SK330.5	■	■	■	■				
58402846	Silicone mattress for 6x 50mL tubes, use with SK330.5	■	■	■	■				
58400103	SK180.4 Dish attachment with non-slip mat Dimension[WxD]: 24x21.5cm						■	■	■
58400869	SK330.4 Dish platform with non-slip mat and fixed string(8 pcs). 34X34cm					■			
58400859	SK330.6 Transparent shield, serologic test for syphilis, 41x39.5x8.3cm	■	■			■			
58400860	SK180.5transparent Cover for Syphilis Serum Test, 32x32x8.3cm						■	■	
58402852	Silicone mattress for 10x 5-10mL tubes						■	■	■
58402853	Silicone mattress for 4x 50mL tubes						■	■	■
58400027	SK330.1, Universal attachment with 4 bars Size: 32x32cm Capacity for flask: 25mLx21pcs, 50mLx15pcs, 100mLx12pcs, 250mLx6pcs, 500x4pcs	■	■	■	■	■			
58400040	SK330.3 Lengthways roller attachment, Mainly used for separation funnel oscillation extraction applications 500mL*3pcs 250mL*4pcs 100/125mL*4pcs 500mL*5pcs	■	■	■	■	■			
58400025	SK180.1, Universal attachment with 3 bars Size: 25x24.5cm Capacity for flask: 25mLx10pcs, 50mLx8pcs, 100mLx6pcs, 250mLx4pcs, 500x2pcs						■	■	■
58400038	SK180.3 Lengthways roller attachment, Mainly used for separation funnel oscillation extraction applications 500mL*2pcs 250mL*3pcs 100/125mL*3pcs 50mL*4pcs						■	■	■





Cat. No.	Description	ESL58497/10	ESL58500/10	ESL58501/9	ESL58496/9	ESL58499	ESL58497/4	ESL58500/4	ESL58500/20 Multi functional models
 58400036	Bar for SK330.1 universal attachment	■	■	■	■				
 58400037	Bar for SK180.1 universal attachment						■	■	■
 58400280	Connect sticks for double dishes shaker	■	■	■	■	■	■	■	■
 58400028	SK330.2, Fixing clip attachment Size: 32 x 32cm	■	■	■	■				
 58400026	SK180.2, Fixing clip attachment Size: 25 x 24cm						■	■	■
 58400029	Fixing clip for flask volume 25mL, used with SK330.2[9pcs] SK180.2[28pcs]	■	■	■	■		■	■	■
 58400030	Fixing clip for flask volume 50mL, used with SK330.2[9pcs] SK180.2[16pcs]	■	■	■	■		■	■	■
 58400031	Fixing clip for flask volume 100mL, used with SK330.2[9pcs] SK180.2 [16pcs]	■	■	■	■		■	■	■
 58400032	Fixing clip for flask volume 200/250mL, used with SK330.2[4pcs] SK180.2[9pcs]	■	■	■	■		■	■	■
 58400033	Fixing clip for flask volume 500mL, used with SK330.2[2pcs] SK180.2[9pcs]	■	■	■	■		■	■	■



# Handheld Homogenizer

ESL58464

## Features

- Portable, lightweight with ergonomic design ideal for Manual operations
- Processing volumes from 0.1-50mL or 1-250mL
- Variable speed from 8,000 to 32,000 rpm
- 316L stainless steel shafts are fully autoclavable
- Interchangeable shafts for easy dismantling and cleaning

## Applications

Designed for rapidly homogenize, emulsify, suspend and disrupt biological samples like tissue of animal, bacteria, yeast, plant samples, etc. in liquids. Ideal for samples from 0.1mL to 250mL depending on shaft chosen.



## Specifications

## ESL58464/5 - ESL58464/10

Speed range	8000-32000rpm
Max linear velocity	6.3m/sec or 14m/sec
Speed level	10 stage
Working volume [H2O]	0.1-50mL(Dispersing shaft ESL58464/5) 1-250mL(Dispersing shaft ESL58464/10)
Max. viscosity	5,000mPas
Material of Dispersing Shaft	SS 316L stainless steel, PTFE
Noise Level	72 dB(A)
Protection class	IP20
Voltage,Frequency	110-120V/60Hz 220-240V/50-60Hz
Power	160W
Motor Type	AC carbon brush motor
Weight	0.54 kg
Dimension [WxDxH]	45mm x 55mm x 190mm

## ESL58464/5

Cat. No. 58460543

Volume 0.1-50mL  
Max. Circum. Speed 6.3m/sec  
Material: 316L stainless steel  
Application: small amounts of solid liquid mixed  
Function : dispersing tool for solid/liquid media



## ESL58464/10

Cat. No. 58460815

Volume 0.1-150mL  
Max. Circum. Speed 10m/sec  
Material: 316L stainless steel  
Application: small amounts of solid liquid mixed  
Function : dispersing tool for solid/liquid media



## ESL58464/10

Cat. No. 58460544

Volume 0.1-250mL  
Max. Circum. Speed 14m/sec  
Material: 316L stainless steel  
Application: small amounts of solid liquid mixed  
Function : dispersing tool for solid/liquid media



# High Shear Homogenizer

ESL58465

The high shear homogenizer D500 is applicable to various tasks from sample preparation to formulation study. The motor drives the rotor to rotate at high speed, and the sample is homogenized or dispersed by the gap between the rotor and stator, usually in a short period of time.

## Features

High quality 316L stainless steel with corrosion and autoclave resistance  
Rotor with simple design can be dismantled, cleaned, and sterilized conveniently  
6 speed levels  
Applicable for sample with viscosity up to 10000mPa·s  
Replaceable rotors and stators sharing the same shaft, cost-effective  
Automatic overload protection mechanism maximizes the working life of motor.  
Smooth motor start, stable acceleration without spillage risk

## Applications

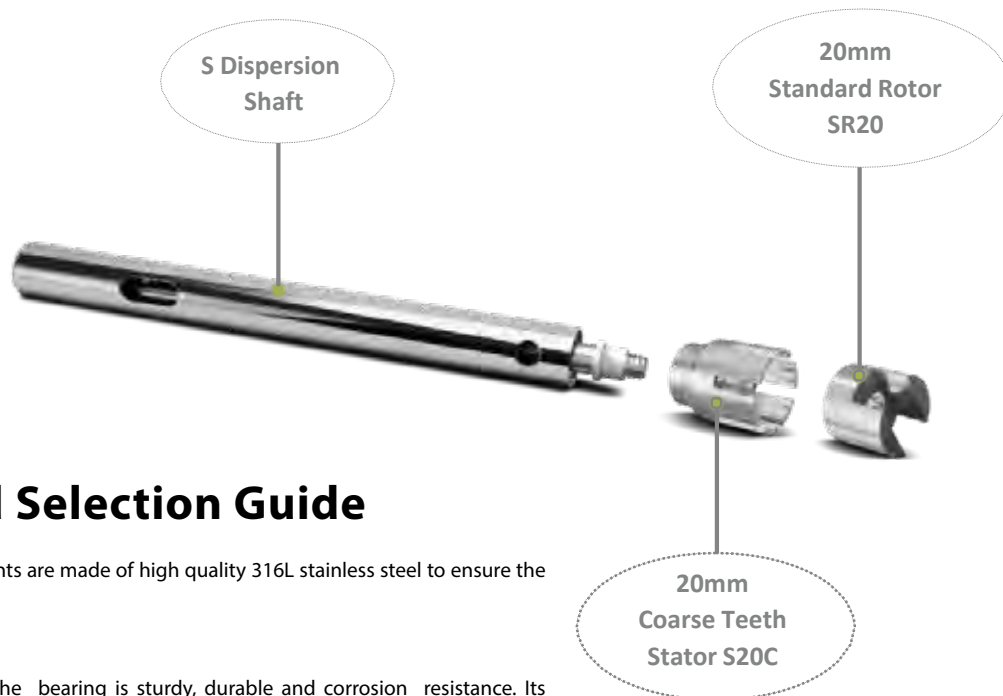
Widely applied for histocyte lysis, cell homogenization, emulsion, nanometer scale dispersion process in biology, pharmaceutical, genetic and pathology study, dairy product or fruit homogenization, polymerization reaction, production of fragrance, cosmetics, textile auxiliary, food, ink, paints, asphalt, fine chemicals, agricultural chemicals, and analysis in mineral exploration, environmental protection and energy resource exploration.



- Routine homogenization, emulsion, depolymerization, dispersion application
- Disperse substance to form suspension and emulsion
- Disperse pigment and resin
- Disperse animal or human tissue into various solution
- Facilitate the dissolve of solid substances
- Sample preparation for quality control test
- Animal or plant cell lysis
- Emulsion, cream cosmetics, and food formulation study
- Extraction of active pharmaceutical ingredient from pills and tablets

Specifications	ESL58465
Speed range	10000-30000rpm
Max linear velocity	22.7-36m/sec
Speed Level	6 stage
Working volume	10-40000mL
Max. viscosity	10000mPa·s
Material of dispersing shaft	SS 316L stainless steel, PTFE
Noise Level	79dB(A)
Protection class	IP20
Voltage, frequency	110-120V/60Hz, 220-240V/50-60Hz
Power	500W
Motor type	AC carbon brush motor
Dimension [WxDxH]	75x75x280mm
Weight	1.7kg
Permissible ambient temperature and humidity	0-40°C, 85%RH



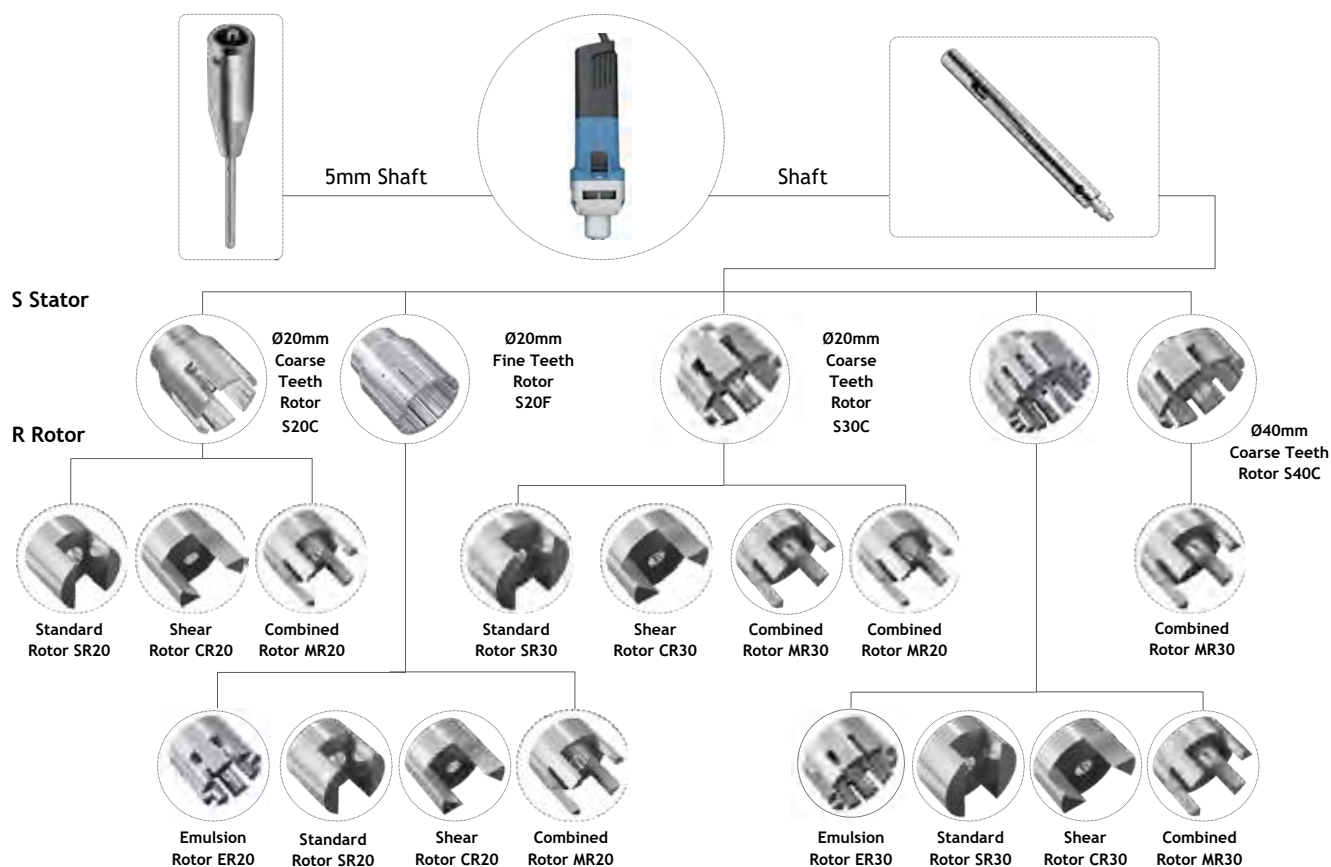


## Dispersion Head Selection Guide

**Material :** All dispersion head components are made of high quality 316L stainless steel to ensure the mechanical performance while rotating at high speed of 30000rpm.

**Bearing :** Made of excellent material, the bearing is sturdy, durable and corrosion resistance. Its mechanical performance and chemical characteristics are stable.

**Easy to clean:** The dispersion head is designed to be easily dismantled and thus cleaned. The components can be cleaned manually or automatically, and can be autoclaved. Even the precision components can be removed to clean.





**ESL58465/1 Cat No.58461331**

Solid and liquid dispersion  
Volume 10-5000mL  
Max. circum. Speed 22.7m/sec  
General purpose  
Emulsion granularity range 1-10µm  
Suspension granularity range 10-50µm

**ESL58465/2 Cat No. 58461332**

Emulsion  
Volume 10-5000mL  
Max. circum. Speed 22.7m/sec  
General purpose  
Emulsion granularity range 1-10µm  
Suspension granularity range 10-50µm

**ESL58465/5 Cat No. 58460117**

Small amounts of solid and liquid dispersion  
Volume 1-50mL  
Max. circum. Speed 5.8m/sec  
Compatible with 5mm stator and 3.8mm rotor  
Special design for 1-50mL tissue homogenization, mixing and suspension in Eppendorf tube, tube strip and centrifuge tubes for clinical and diagnostic application

Stator & Rotor		Purpose	Working Volume	Max. circum. Speed	Rotor Dia.	Stator Dia.	Min./Max.	Granularity (µm)		Application
			mL	m/s	mm	mm	Immersion Depth	Suspension	Emulsion	
58461331	SS20CSR20	Solid-liquid mix	10-5000	23.5	15	20	40/170	10-50	1-10	P,CI,PC,SD
58460205 58460215	S20C CR20	Fiber	10-5000	23.5	15	20	40/170	10-50	1-10	SP,M,F,PT,TI
58460205 58460216	S20C MR20	Solid-liquid mix	10-5000	23.5	15	20	40/170	10-50	1-10	CI,PI
58461332	SS20FER20	Emulsion	10-5000	23.5	15	20	40/170	10-50	1-10	SP,PI,PT,P
58460206 58460215	S20F CR20	Fiber	10-5000	23.5	15	20	40/170	10-50	1-10	SP,BT,M,F,PT,TI
58460206 58460216	S20F MR20	Solid-liquid mix	10-5000	23.5	15	20	40/170	10-50	1-10	CI,C,PI,F,PT,PC
58460213 58460216	S30C MR20	As stirring paddle	250-20000	36.1	15	30	40/170	High speed mixing		CI,F,SP
58460213 58460208	S30C SR30	Solid-liquid mix	100-8000	36.1	23	30	40/170	5-25	1-5	SP,M,F,PT,P
58460213 58460209	S30C CR30	Fiber	100-8000	36.1	23	30	40/170	5-25	1-5	SP,M,F,PT,P
58460213 58460229	S30C MR30	Solid-liquid mix	100-8000	36.1	23	30	40/170	5-25	1-5	CI,PI
58460228 58460208	S30F SR30	Solid-liquid mix	100-8000	36.1	23	30	40/170	5-25	1-5	SP,PI,PT,P
58460228 58460212	S30F ER30	Emulsion	100-8000	36.1	23	30	40/170	5-25	1-5	SP,PI,PT,P
58460228 58460229	S30F MR30	Solid-liquid mix	100-8000	36.1	23	30	40/170	5-25	1-5	CI,C,P,F,DT,TI
58460214 58460229	S40C MR30	As stirring paddle	1000-40000	36.1	23	40	40/170	High speed mixing		CI,F,SP
58460117	SS5CSR5	Small amount solid-liquid mix	1-50	6.3	4	5	40/60	10-50	1-10	BT,M

**Note:**

BT: Biotech; F: Food; P: Pharmaceuticals; C: Cosmetics; M: Medicine Analysis; PC: Petroleum Chemistry; PT: Paper and Pulp Industry; SP: Sewage Treatment; CI: Ceramic Industry; CH: Chemical Industry; PI: Paints Industry; TI: Tobacco Industry The common combinations of rotor and stator are listed in the table above. Dispersion head can be mounted on the homogenizer main body and fixed on the holder with fixtures. All the components of dispersion head can be sterilized with all usual methods (including chemicals, autoclave, etc.)



# LCD Digital Overhead Stirrer

ESL58466C

ESL58467C

ESL58468C

EDU Science Overhead Stirrers are competent for most demanding tasks with guaranteed safety and performance.

They are widely used in chemical synthesis, pharmaceutical synthesis, physical and chemical analysis, petrochemical industries, etc



Specifications	ESL58466C	ESL58467C	ESL58468C
Max. stirring quantity[H <sub>2</sub> O]	20 L	40 L	70 L
Speed range	50-2200rpm	50-2200rpm	50-1100rpm
Speed display accuracy	±3rpm	±3rpm	±10rpm
Time settings range	-	-	0-99h59min
Max. torque	40N·cm	60N·cm	300N·cm
Viscosity max.	10000mPa·s	50000mPa·s	100000mPa·s
Weight	2.8kg	2.8kg	3.2kg
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor
Voltage,Frequency	100-240V, 50/60 Hz	100-240V, 50/60 Hz	100-240V, 50/60 Hz
Speed display	LCD	LCD	LCD
Torque display	LCD	LCD	LCD
Overload protection display	LCD	LCD	LCD
Chuck clamp range diameter	0.5-10mm	0.5-10mm	0.5-10mm
Motor input/output power	60W/50W	120W/100W	180W/160W
Power	70W	130W	200W
Dimension[WxHxD]	83 x 220 x 186mm	83 x 220 x 186mm	83 x 220 x 186mm
Protection class	IP21	IP21	IP21
Permissible ambient temperature and humidity	5-40°C,80%RH	5-40°C,80%RH	5-40°C,80%RH
Data interface	RS232	RS232	RS232





## LED Overhead Stirrer

ESL58466

ESL58467

### Features

- High reliability and outstanding performance
- Wide range of speed from 50 to 2200rpm
- Brushless DC motor for long life, maintenance free and explosion proof
- LED screen for monitoring actual speed
- Safety circuits allow for safe stop function in anti-stall or overload conditions
- Large chuck diameter for many shaft types

### Set of Overhead Stirrer tools

Cat.No. 58460743



Contains one vertical rod, six stirring blades Such as Propeller stirrer Paddle stirrer Centrifugal stirrer Flat-blade stirrer Radial-flow stirrer Anchor stirrer and Disassembling tool

### Plate Stands

Universal Plate Stand  
for ESL58466-ESL58467

**Cat. No. 58460605**



Dimension [W x D x H] :  
20x31x78cm  
Material: cast iron

Universal Plate Stand  
(for OS20/40/70)

**Cat. No.58460497**



















Dimension [W x D x H] :  
3.5x46.3x78cm  
Material: cast iron

Specifications	ESL58466	ESL58467
Max. stirring quantity[H <sub>2</sub> O]	20 L	40 L
Speed range	50-2200rpm	50-2200rpm
Max. torque	40N·cm	60N·cm
Viscosity max.	10000mPa·s	50000mPa·s
Motor type	Brushless DC motor	Brushless DC motor
Speed display	LED	LED
Overload protection display	LED	LED
Chuck range diameter	0.5-10mm	0.5-10mm
Motor input power	60W	120W
Motor output power	50W	100W
Power	70W	130W
Voltage,Frequency	100-240V, 50/60 Hz	100-240V, 50/60 Hz
Dimension[WxHxD]	83 x 220 x 186mm	83 x 220 x 186mm
Protection class	IP21	IP21
Weight	2.8kg	2.8kg
Permissible ambient temperature and humidity	5-40°C,80%RH	5-40°C,80%RH



ES Overhead Stirrer provides a variety of stirring tools, such as impellers, paddles and blades:

<b>Propeller stirrer</b> Shaft length: 40cm Stirrer diameter: 5 cm Shaft diameter : Ø8 mm Material: 316L stainless steel Standard stirring applications at medium and high speed	<b>Cat. No. 58460071</b> 	<b>Paddle stirrer</b> Shaft length: 40 cm Stirrer diameter: 6.8 cm Shaft diameter: Ø 8 mm Material: 316 L stainless steel For gentle mixing at low and medium speeds	<b>Cat. No. 58460073</b> 
<b>Straight stirrer</b> Shaft length: 40 cm Stirrer diameter: 4 cm Shaft diameter : Ø8 mm Material: 316L stainless steel Standard stirring applications at medium and high speed	<b>Cat. No. 58460072</b> 	<b>Centrifugal stirrer</b> Shaft length: 40 cm Stirrer diameter: 9 cm Shaft diameter: Ø 8 mm Material: 316 L stainless steel Blades open while speeding. For narrow neck vessels at medium to high speed.	<b>Cat. No. 58460074</b> 
<b>Propeller stirrer</b> Shaft length: 35 cm Stirrer diameter: 6.5 cm Shaft diameter: Ø 8 mm Material: PTFE coated Standard stirring applications at medium and high speed	<b>Cat. No. 5846075</b> 	<b>Paddle stirrer</b> Shaft length: 35 cm Stirrer diameter: 6.8 cm Shaft diameter: Ø8 mm Material: PTFE coated For gentle mixing at low and medium speeds	<b>Cat. No. 58460077</b> 
<b>Straight stirrer</b> Shaft length: 35 cm Stirrer diameter: 7 cm Shaft diameter : Ø8 mm Material: 316L stainless steel Standard stirring applications at medium and high speed	<b>Cat. No. 58460476</b> 	<b>Centrifugal stirrer</b> Shaft length: 35 cm Stirrer diameter: 8.5 cm Shaft diameter: Ø8 mm Material: PTFE coated Blades open while speeding. For narrow neck vessels at medium to high speed.	<b>Cat. No. 58460478</b> 
<b>Grand propeller stirrer</b> Shaft length: 60 cm Stirrer diameter: 10 cm Shaft diameter: Ø8 mm Material: 316 L stainless steel Standard stirring	<b>Cat. No. 58460478</b> 	<b>Grand paddle stirrer</b> Shaft length: 60 cm Stirrer diameter: 10 cm Shaft diameter: Ø8 mm Material: 316 L stainless steel Gentle mixing for those stratify easily or sensitive to shear	<b>Cat. No. 58460499</b> 
<b>Grand anchor stirrer</b> Shaft length: 60 cm Stirrer diameter: 10 cm Shaft diameter: Ø8 mm Material: 316 L stainless steel Standard stirring or for those easily precipitate	<b>Cat. No. 58460698</b> 	<b>Grand dissolving stirrer</b> Shaft length: 60 cm Stirrer diameter: 10 cm Shaft diameter: Ø8 mm Material: 316 L stainless steel Breaking down granules in the mixture with strong shear	<b>Cat. No. 58460500</b> 
<b>Flat-blade stirrer</b> Shaft length: 40 cm Stirrer diameter: 6 cm Shaft diameter : Ø8 mm Material: 316L stainless steel Suitable for medium speed stirring, low viscosity and medium viscosity materials	<b>Cat. No. 58460625</b> 	<b>Anchor stirrer</b> Shaft length: 40 cm Stirrer diameter: 6 cm Shaft diameter : Ø8 mm Material: 316L stainless steel Suitable for low speed stirring, medium viscosity and high viscosity materials	<b>Cat. No. 58460627</b> 
<b>Radial-flow stirrer</b> Shaft length: 40 cm Stirrer diameter: 5 cm Shaft diameter : Ø8 mm Material: 316L stainless steel Suitable for medium speed or high speed agitation, low viscosity or medium viscosity materials, recommended for the treatment of gas in liquid	<b>Cat. No. 58460626</b> 	<b>Spiral stirrer</b> Shaft length: 40 cm Stirrer diameter: 5 cm Shaft diameter : Ø8 mm Material: 316L stainless steel Suitable for medium speed or high speed agitation, medium viscosity and high viscosity materials, recommended for liquid homogenization or suspension treatment	<b>Cat. No. 58460628</b> 





# Micro Centrifuge

ESL58503

## Features

- Ideal for microfiltration and quick spin-down application
- Easy to operate. Lid close, it begin to rotate
- Max up to 7000rpm
- Compatible with 2mLx8 and PCR8x4 rotors
- Quiet running, noise level  $\leq 45$ dB
- Quick-change rotor without any tool
- Accelerates and brakes in seconds
- Available in two colors i.e., green, blue
- Safe, enduring and robust rotor with clamp locking design

Labware



Quiet operation



Vibration free

Specifications	ESL58503
Max. Speed	7000rpm
Max. RCF	2680xg
Rotor Capacity	0.2/0.5/1.5/2.0mLx8; 0.2mLx32 PCR strips or 0.2mLx4 PCR 8 strips
Run Time	Continuous operation
Driving Motor	DC motor
Power	AC100-240V/50Hz/60Hz 20W
Noise Level	<45dB
Dimension [DxWxH]	160x170x122mm
Weight	1.19kg
Certification	CE cTUV us FCC MCA



### ESA8-2P

Max. speed:7000rpm Max. RCF:2680xg  
Rotor capacity:2mL/1.5mLx8,0.2mLx8,0.5mLx8  
Rotor material:High strength plastic  
Available rotor adapters:SA02P2, SA05P2



### ESA04-RCR8

Max. speed:7000rpm Max. RCF:2680xg  
Rotor 0.2 mLx32 PCR strips, 0.2 mLx4 PCR 8 strips Rotor material: High strength plastic



### ESA02P2

0.2mL rotor adapter  
Used with A08-2  
rotor 8pcs/pk



### ESA05P2

0.5mL rotor adapter  
Used with A08-2  
rotor 8pcs/pk



# Low-speed Centrifuge

**ESL58507**

## Features

- Speed range from 300-5000rpm;
- Rotor speed can be set and displayed by RPM or G-force;
- Defined program by knob will be stored and activated when power on;
- Two programs P1/P2, easy to start the procedure by one key;
- Two deceleration speeds setting to meet different requirements;
- Easy-to-read processing display and sound alert;
- Automatic lid-lock release after running;
- Maintenance-free brushless DC motor.



Specifications	ESL58507
Speed Range	300-5000rpm, increment:10rpm
Max. RCF	2350xg, increment: 10g
Speed accuracy	+20rpm
Rotor capacity	6x15mL/10mL/7mL/1.5-5mL
Run Time	30sec-99min, HD (continuous running)
Display	LCD
Programs Memory	2
Acceleration/Deceleration	1121
Safety Devices	Door interlock, Over speed detector, Automatic internal diagnosis
Motor	Brushless DC motor
Power	Single-phase, 100V-240V,50Hz/60Hz, 70W
Dimension(WxDxH)	300X240X180mm
Weight	5.2kg
Advanced features	Speed/RCF switch; sound-alert function

## Available adapters



### ES5P17

5ml adapter, Adapted to 13x75mm blood collection tube



### ES2P17

1.5/2ml Cryogenic Vials/ centrifuge tube adapter

EduScience uk ESL-506 low-speed centrifuge, supplied with built in fixed angle rotor ESA6-15P which can hold up to 5mL /10mL/7mL



# High Speed Mini Centrifuge

ESL58508

## Features

- Speed up to 15000rpm (15100×g)
- Brushless DC motor drive quickly to the target speed
- Quiet working, Low noise ≤54dB
- ESL-2012 Pro is proven by IEC/EN 61010-1
- ESL-2012 Pro passed the rigorous explosion-proof test according to IEC/EN 61010-2-20. It is certified with CE, cTUVus, FCC



Brushless DC motor



LCD display



CE

Specifications	ESL58508
Max. Speed	15000rpm(500-15000rpm), increment: 100rpm
Max. RCF	15100×g, increment: 100×g
Speed Accuracy	±20rpm
Rotor Capacity	0.2mL/0.5mL/1.5mL/2mL×12
Run Time	30sec-99min/Continuous
Acceleration /Braking time	11s↑/9s↓
Driving Motor	Brushless DC motor
Safety Devices	Door interlock, Over-speed detection, Over-temperature detection, Automatic internal diagnosis
Power	Single-phase, AC100V-240V, 50Hz/60Hz, 3A 100W
Noise level	≤54dB
Dimension [D×W×H]	255×245×140mm
Weight	6kg
Certification	EMC, CE, FCC, ICES, cTUVus, CB



## Available Rotors



### A12-2Pfor ESL2012Pro only

Max. speed: 15000rpm Max. RCF: 15100×g  
Rotor capacity: 2mL/1.5mL×12, 0.2mL×12, 0.5mL×12  
Rotor material: High strength plastic  
Available rotor adapters: A02P2, A05P2

## Available Adapters



### A02P2

0.2mL rotor adapter  
Used with A12-2, A12-2P, AS24-2 and A24-2P rotors 24 pcs/pk

### A05P2

0.5mL rotor adapter  
Used with A12-2, A12-2P, AS24-2 and A24-2P rotors 24 pcs/pk





### Centrifuge Basic

Speed range of 300-4500rpm, Individual control of speed and time, Faster acceleration and deceleration, Perfectly suitable for 15mL cell culture tubes and a full line of collection tubes, Specifications, Speed Range 300-4500rpm, increment: 100rpm, Max. RCF 2490×g, Speed accuracy  $\pm 100$ rpm, Rotor Capacity 1 type, Run Time 1sec-99min HOLD(Continuous operation), Motor DC motor, Display LED, Safety Devices Door interlock, Over-speed detection, Acceleration, /Braking time [Sec] 23s 23s Power Single-phase, 220V-240V, 50Hz/60Hz, 3A; 100V-120V, 50Hz/60Hz, 3A 70W,

**Dimension :** [D×W×H] 301×354×217mm

**Weight :** 6kg, Advanced Features sound-alert function.

ESL58504



### Centrifuge Basic LCD

Easy programming to achieve high accuracy of speed control, Easy operation with intuitive menu and easy-to-read display

Rotor speed can be set and displayed by RPM or G-force, Maintenance-free brush-less DC motors, Quick spin function with press and hold pulse key, Lid with electric lock and automatic release function saves processing time and prevents samples overheating

Automatic self-diagnosis on start up showing accumulative running time and last running parameters, Braking time 2 gears adjustable (for A6-50P rotor), A12-10P and A6-50P are not interchangeable,

Specifications

Speed Range 300-4500rpm, increment: 100rpm, Max. RCF 2490×g, Speed accuracy  $\pm 20$ rpm, Rotor Capacity 1 type, Run Time 30sec-99min/Continuous, Motor Brush-less DC motor, Display LCD, Safety Devices Door interlock, Overspeed detector; Automatic internal diagnosis, Acceleration /Braking time [Sec] 20s 13s, Power Single-phase, 110V-240V, 50Hz/60Hz, 3A, 70W

**Dimension :** [D×W×H] 301×354×217mm

**Weight :** 6kg, Certification CE, UL, IVD, Advanced Features Speed/RCF switch; Short-time run function; sound-alert function

ESL58505







## Hematocrit Centrifuge

ESL58514

### Features

- Speed range of 200-12000 rpm Precise and independent control of speed and time
- Easy operation with intuitive menu and LCD display
- Maintenance-free brushless DC motor
- Pulse operation for fast and convenient quick spins
- Advance features include speed/RCF switch; short-time run function; audible alert function
- Safety features include door interlock, over speed detector; over-temperature detector; automatic internal diagnosis and automatic rotor identification

## Hematocrit Centrifuge

ESL58515

### Features

Speed range of 500-12000 rpm - Precise control of speed and time  
Maintenance-free brushless DC motors -Door interlock

### Applications

ES hematocrit centrifuges are used for determination of erythrocyte fractions in blood as well as micro solution separations. It provides hematocrit values (HCT) for testing in biochemistry, immunity, genetics, blood separation and for general clinical tests for diagnostic purposes and also for dope tests. They have special applications for the photometric determination of bilirubin content in neonate blood samples. They are suitable for extraction of DNA and RNA. Veterinary clinics and Vitamins testing for Infants.



Labware

Specifications	ESL58514	ESL58515
Speed Range	200-12000rpm, increment: 10rpm	500-12000rpm, increment: 100rpm
Max. RCF	13680×g	13680×g
Speed Accuracy	±20	±100
Run Time	30sec-99min/Continuous	30sec-99min/Continuous
Motor	Brushless DC motor	Brushless DC motor
Display	LCD	LCD
Safety Devices	Door interlock, Overspeed detector; Automatic internal diagnosis, Automatic rotor identification	Door interlock
Acceleration/Braking time	30s↑30s↓	40s↑40s↓
Power Requirements	Single-phase, 200V-240V, 50Hz/60Hz, 5A; 100V-120V, 50Hz/60Hz, 5A 160W	Single-phase, 200V-240V, 50Hz/60Hz, 5A 380W
Dimension(WxDxH)	280×364×274mm	280×364×213mm
Weight	10.5kg	8.5Kg
Advanced features	Speed/RCF switch; Short-time run function; sound-alert function	Speed/RCF switch; Short-time run function; sound-alert function

### Available rotors

AC24

Cat. No.58510047

#### ESL58514 & ESL58515

Max. speed: 12000rpm

Max. RCF: 13680 × g

Rotor capacity: capillary tubes x24

Rotor material: High strength aluminum





## High Speed Micro Centrifuge

ESL58509

ESL58510

### Unique Features

Patent multi-flow air cooling design to provide air exchange to prevent chamber warming

Three-layer seal ensure airtightness and biosafety

High strength aluminum alloy rotor can be fully autoclaved for unlimited service life

Four rotors are optional complete with 24 places 1.5/2.0mL tubes, bigger 5.0mL, smaller 0.2mL and 0.5mL tubes with adapters

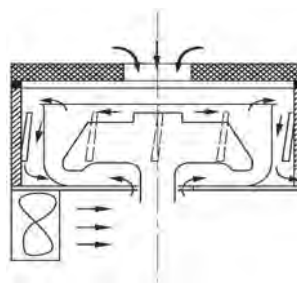


Brushless DC motor



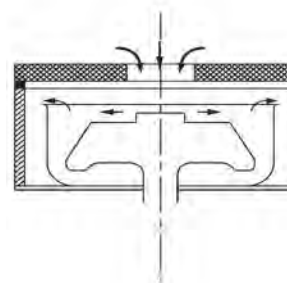
Wide range of rotors

### Effective Ventilation System



Proprietary design of dual path ventilation enforcing air cooling from both the upper and lower side for the rotor.

### Conventional design



Limiting ventilation on the upper side of the rotor





Brushless DC motor



Wide range of rotors

Specifications	ESL58509	ESL58510
Max. Speed	15000rpm(200-15000rpm), increment:10rpm	15000rpm(200-15000rpm), increment:10rpm
Max.RCF	21380xg, increment:10xg	21380xg, increment: 10xg
Speed Accuracy	+20 rpm	+20 rpm
Temperature Range	-	-20°C-40°C
Rotor Capacity	5mLx18, 5mL culture tubex12 0.2mL/0.5mL/1.5mL/ 2mLx24, 0.5mLx36,PCR8x4	5mLx18, 5mL culture tubex12 0.2mL/0.5mL/1.5mL/ 2mLx24, 0.5mLx36,PCR8x4
Run Time	30sec-99min/Continuous	30sec-99min/Continuous
Motor	Brushless DC motor	Brushless DC motor
Safety Devices	Dual door interlock, Over-speed detection, Automatic internal diagnosis	Dual door interlock, Over-speed detection, Over-temperature detection, Automatic internal diagnosis
Power	Single-phase, AC200V-400V, 50Hz/60Hz, 5A, AC100V- 120V, 50Hz/60Hz, 8A 200W	Single-phase, AC200V-240V, 50Hz/60Hz, 10A, AC100V-120V,50Hz/60Hz, 10A 400W
Acceleration /Braking time [Sec]	25s↑25s↓	25s↑25s↓
Dimension[WxDxH]	280x364x266mm	338x580x324mm
Weight	12kg	30kg
Certification	CE cTÜVus FCC MCA	CE cTÜVus FCC MCA
Advanced Features	Speed/RCF switch; Short-time run function; sound-alert function	Speed/RCF switch; Short-time run function; sound-alert function
Noise Level	≤64dB	≤56dB





ES Rotors are manufactured from military- industrial grade aluminum alloy with high mechanical strength for precise running and safety (excludes ES2012 plus rotor)

- Every rotor can reach a max. speed of 15000rpm
- Rotors are seated on a tapered shaft, concentric and self-aligning, perfect to achieve running stability at high speeds
- ES3024 & ES3024R with bio-safety rotors/ anti- sample overflow prevents accidental leakage and risk free centrifugal process
- microbial contamination. ES3024&ES3024R rotors have passed MCA test according to IEC/EN61010-2-20, including mechanical safety and bio-safety tests
- High strength aluminum alloy rotors are fully autoclavable and provide unlimited service life (ES2012 plus rotor not included)
- Powerful cooling system minimizes rotor heating. ES3024 rotors heat up to > 10°C and D2012 rotors less than 8°C after running an hour

## Rotor Features

### Fully autoclavable

High strength aluminum alloy rotors are fully autoclavable, withstanding steam sterilizing at 121°C for 20 minutes, with unlimited service life.

### Bio-safety

Aspired to be the top-of-the-line model, ES3024 & ES3024R rotors are designed to prevent sample leakage. Each and every rotor is hermetically sealed by three rubber seals.

### Mechanical safety

ES centrifuges are constructed under MCA conditions according to IEC/ EN61010-2-20, causing disruption by partially cutting and overloading rotor assembly, and guarantee that no part shall be detached to cause danger to person or the environment.

Three rubber seals fitted to achieve bio-safe condition





## Rotors and Adapters

### Available Rotors

#### **ES24-2** for ES3024 & ES3024R

Max. speed: 15000rpm Max. RCF: 21380×g  
Rotor capacity: 2mL/1.5mL×24/0.2mL×24/0.5mL×24 Rotor material: Aluminum alloy  
Bio-safe(Bio sealing): Yes  
Available rotor adapters: A02P2,A05P2

#### **ES12-V5** for ES3024 & ES3024R

Max. speed: 15000rpm Max. RCF: 21380×g  
Rotor capacity: 5mL×12(Eppendorf tube) Rotor material: Aluminum alloy  
Bio-safe(Bio sealing): Yes

#### **ES36-05** for ES3024 & ES3024R

Max. speed: 15000rpm Max. RCF: 21380×g  
Rotor capacity: 0.5mL×36,0.2mL×36 Rotor material: Aluminum alloy  
Bio-safe(Bio sealing): Yes Available rotor adapters: A02P05

#### **ESS4-PCR8** for ES3024 & ES3024R

Max. speed: 15000rpm Max. RCF: 21380×g  
Rotor capacity: 0.2mL/PCR8×4 Rotor material: Aluminum alloy  
Bio-safe(Bio sealing): Yes



## Rotors and Adapters



### ES18-5

for ES3024 & ES3024R

Max. speed :15000rpm Max. RCF:21380×g  
Rotor capacity:5mL×18 ( Round-Botton tube ) Rotor  
material:Aluminum alloy  
Bio-safe(Bio sealing):Yes

### Available Rotors



### ES02P2

0.2mL rotor adapter  
Used with ES12-2, ES12-2P, ES24-2 and ES24-2P  
rotors 24pcs/pk



### ES05P2

0.5mL rotor adapter  
Used with ES12-2, ES12-2P, ES24-2 and ES24-2P  
rotors 24pcs/pk



### ES02P05

0.2mL rotor adapter  
Used with ES36-05 rotor  
36pcs/pk



# Multi-Purpose Low-speed Centrifuge

ESL58506



## Features

- Speed can be set from 300- 6000rpm
- Maximum capacity of the centrifuge: 100 mLx4
- 9 Acceleration/10 Brake speed settings to ensure optimal separation
- A wide range of rotors optional(fixed angle and swing-out bucket rotors)
- Automatic rotor identification
- Timers can be set up to 99 min or HD for continuous running
- Pulse Key for quick spin function
- 9 procedures stored in memory makes the operation much simplified
- Maintenance-free brushless DC motors

ES UK ESL58506 Multi-Purpose Low-speed Centrifuge is ideal for the centrifugation of samples in clinical chemistry, cytology, research laboratories, industrial laboratories, etc.

This centrifuge is suitable for tubes with caps, blood collection or urine tubes. Swing-out bucket rotors and adapters can be compatible with standard tubes up to 100mL at low speed.



Specifications	ESL58506
Speed range	300-6000rpm increment:10rpm
Max. RCF	4020xg
Speed accuracy	±20rpm
Max. Capacity	100mLx4
Run Time	30sec-99mins/continuous
Motor	Brushless DC
Display	LCD
Program Memory	9
Safety Devices	Door Imbalance protection Over speed & Over temperature detection
Acceleration/Deceleration	91/101 steps
Power	660W; Single-phase AC220V-240V, 50Hz/60Hz, 6.3A; AC110V-120V, 50Hz/60Hz, 10A
Dimension[WxDxH]	445x579x269mm
Weight	36kg
Certification	CE
Advanced features	speed/rcf switch; Rotor identification





### Uncapping block

for S4-100 rotor

58500045



### SE4-100

for ESL58506

Max. speed: 4000rpm

Max. RCF: 2950×g

Rotor material: stainless steel body and adapter

58500041

### A15V

15ml conical tube adapter, MOQ 8 Pcs (optional)

58500025



19400045



19400044



19400043



19400042

bucket	x 4										
tube	x 36		x 16			x 8	x 4	x 4	x 4	x 8	x 20
Nominal volume	3-7mL		10mL	12mL	15mL	50mL	100mL	85mL	50mL	15mL	3-7mL
φ×L mm	13×75	13×100	16×100	17×105	17×120	29.5×100	38×108	38×104	29.5×100	17×120 13×100 13×75	13×100 13×75
tube											
adapter	with plug					 A50V	 A100P80	 A100P50	 A100P15	 A100P10	
Package	36					8	4	4	8	4	
Tubes per rotor	36	36	16	16	16	8	4	4	4	8	20
Radius(cm)	14	16.5	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.1	14.7
Max RCF (g-force)	2500	2950	2840	2840	2840	2840	2840	2840	2840	2700	2630





## Available Rotors

**ES2-MP for ESL58506**

Max. speed : 4000rpm

Max. RCF: 2200×g

Rotor capacity : Micro-plates 384-PCR/96-PCR/Elisa plates×8pcs; Deep well plates×4pcs

Rotor material I: stainless steel body and aluminum buckets

58500062

**ES12-PCR8 for ESL58506**

Max. speed : 6000rpm

Max. RCF : 4020×g

Rotor capacity : PCR 8 trips×12

Rotor material : aluminum

Biosealing : Yes

58500036

**ES30-2 for ESL58506**

Max. speed: 6000rpm

Max. RCF : 4020×g

Rotor capacity : 2mL×30

Rotor material : aluminum

Biosealing : Yes

58500034

**ES60-2 for ESL58506**

Max. speed: 6000rpm

Max. RCF: 4020×g

Rotor capacity: 2mL×60

Rotor material: aluminum

Biosealing: Yes

58500037



**Available Rotors****ES6-50V (cone bottom) for ESL58506**

Max. speed: 6000rpm Max. RCF: 4020xg

Rotor capacity: 50mLx6 or 15mLx6 Rotor material: aluminum Biosealing: Yes

**58500038****ES18-5V (cone bottom) for ESL58506**

Max. speed: 6000rpm Max. RCF: 4020xg

Rotor capacity: 5mLx18

Rotor material: stainless steel body and aluminum buckets

Biosealing: Yes

**58500035****E8-50 (round bottom) for ESL58506**

Max. speed: 5000rpm Max. RCF: 3960xg

Rotor capacity: 50mLx8 or 15mLx16

Rotor material: aluminum body and stainless steel adapter

Default adapters: SE100P31x8, SE100P17x6

**58500039****E30-15 (round bottom) for ESL58506**

Max. speed: 4500rpm Max. RCF: 3210xg

Rotor capacity: 15mLx30

Rotor material: aluminum body and stainless steel adapter

Bio-safe(Biosealing): Yes

Default adapters: SE100P17x30

**58500040**

Rotor	Capacity	Hole Diameter (mm)	Hole Depth (mm)	Max. Tube Height (mm)	Max. Speed (rpm)
AS30-2	2mLx30	11.2	39	43	6000
AS60-2	2mLx60	11.2	39	43	6000
AS6-50V	50mLx6	31	87.8	118	6000
AS18-5V	5mLx18	17.5	51	56	6000
	50mLx8	35	85.8	118	
A8-50	15mLx16	17.5	98	123	5000
A30-15	15mLx30	17.5	98	123	4500
S2-MP	Micro platex8/ Deep well	-	-	-	4000



## Multi-Purpose low Speed Centrifuge

LCD ESL58518 / LED ESL58519

### Features

- Quiet, compact, and convenient with LCD display
- Maximum up to 4000rpm Speed can be set in RPM/RCF, with 3 customizable routine programs (Blood, Urine & Faecal)
- 3 acceleration level & 4 level deceleration
- Maximum capacity 50mL x4, Accommodating different sizes of blood collection tubes and centrifuge tubes suitable for swing out rotor and angle rotor
- Automatic internal diagnosis and self-detection
- Maintenance-free brushless DC motor
- Applications
- Multi-purpose low speed centrifuge are versatile and can be used in applications from clinical to biochemical for qualitative analysis of serum, plasma, blood, and urine.



Specifications	ESL58519	ESL58518
Speed Range	500 - 4000 rpm increment: 100rpm	300 - 4000 rpm increment: 100rpm
Max. RCF	2350 x g	1900 x g
Speed accuracy	±100 rpm	±100 rpm
Rotor capacity	Swing 6×15mL Swing 4×50 mL Angle 24×15mL Angle 12×10 mL/8×15mL	Angel 8×15mL(Default), Angel 12×10mL
Run Time	1-99min, HOLD	1-99min, HOLD
Motor	Brushless DC motor	Brushless DC motor
Display	LCD	LED
Program	Blood: 3200rpm,10min. Urine: 1800rpm,5min. Faecal: 1300rpm,10min.	Blood: 3200rpm,10min. Urine: 1800rpm,5min. Faecal: 1300rpm,10min.
Safety Devices	Automatic internal diagnosis	Automatic internal diagnosis
Acceleration/deceleration	3↑4↓steps	25s↑35s↓
Power Requirements	Single phase. 100-240V, 50Hz/60Hz, 110W	Single phase. 100-240V, 50Hz/60Hz, 85W
Power	364×440×268mm	286×367×227mm
Weight	14.5kg	9.2kg
Noise Level	≤62dB(A)	≤60dB(A)



## Available rotors

**S6-15****Cat. No. 58519082**

for ESL58519

Max. speed: 44000rpm

Rotor capacity: 15mL×6

Rotor material: Aluminum alloy

Default adaptor: A15P22, A5P17

**A12-10P****Cat. No. 58581/9068**

for ESL58519/ESL58518

Max. speed : 4000rpm

Rotor capacity: 8×15mL or 12×10mL

Rotor material: High strength plastic

**S4-50****Cat. No. 58519100**

for ESL58519

Max. speed: 44000rpm

Rotor capacity: 50mL×4

Rotor material : Aluminum alloy

Default adaptor: A15P30, A5P17



## Available adapters

**A15P30****Cat. No. 58519024**

50mL change 15mL adapter,  
Adapted to 17×120mm centrifuge  
tube, 13/16×100mm blood  
collection tube 4pcs/pk, for S4-50

**A24-15P****Cat. No. 58519101**

for ESL58519

Max. speed: 44000rpm

Rotor capacity: 15mL×24 Rotor  
material : High strength plastic

Default adaptor: A15P22, A5P17

**A15P22****Cat. No. 58519021**

15mL adapter for 17×120mm  
centrifuge tube, 13/16×100mm  
blood collection tube 24 pcs/pk,  
for S6-15, A24-15P, A8-15P

**A5P17****Cat. No. 58519022**

5mL adapter, Adapted to 13×75mm  
blood collection tube 24 pcs/pk,  
for S4-50, S6-15, A24-15P

**A8-15P****Cat. No. 58518/9084**

for ESL58519/ESL58518

Max. speed: 44000rpm

Rotor capacity: 15mL×8

Rotor material: High strength plastic

Default adaptor: A15P22

**A2P17** (Optional)**Cat. No. 58518/9023**

1.5/2mL Cryogenic Vials/ centrifuge  
tube adapter, 24 pcs/pk, for S4-50,  
S6-15, A24-15P, A12-10P, A6-50P





# High-speed Refrigerated Micro Centrifuge

ESL58511

## Features

- Ergonomic electronic lock design, the centrifuge lid can be closed with single finger touch
- Precooling, the compressor will automatically start cooling as long as the set temperature is lower than the ambient temperature.
- Sound indicator to prompt that the upper cover is closed to maintain the temperature inside the chamber, after centrifugation.
- Advanced R290 fluorine free refrigerant, low carbon and environmental protection.
- Temp range:-20°C- 40°C, fast and powerful cooling capacity, 7 minutes cooling from room temp to 4°C. Temp can kept at max speed.
- Up to 9 program storage capacity according to experimental needs.
- Three-layer sealed rotors ensure airtightness and biosafety.
- High-strength aluminum alloy withstand numerous high temperature and high pressure sterilizations.
- Five rotors with 0.2mL, 0.5mL, 1.5mL, 2mL and 5mL centrifuge tubes/ PCR tubes capacity.
- An external condensation tank prevents water accumulation within the centrifuge chamber.
- Rotor imbalance detection alarm.



Labware



Specifications	ESL58511
Max.Speed	15,000rpm (200-15,000rpm) in 100rpm increments.
Max. RCF	21,380×g, step: 10×g
Capacity	1.5/2mL×24, 0.5mL×36, PCR8×4, 5mL×12, 5mL×18.
Temperature setting	-20°C- 40°C
Run Time	30s-99 min; HOLD (continuous running)
Acceleration and deceleration time	25s↑25s↓
Motor Type	DC brushless motor
Safety Performance	Dual door lock, over-speed detection, over-temperature detection with Internal diagnosis system.
Power Requirements	Single-phase, 200V-240V, 50Hz/60Hz, 500W 100V-120V, 50Hz/60Hz, 500W
Noise	≤56dB
Dimensions(mm)	332(Width) × 553(depth) × 283(height)
Weight	30kg
Other functions	Rotation speed/RCF switchover, inching operation, running process indicator, sound alert. Acceleration/ deceleration in 9 steps, program storage capacity.



# High Speed Refrigerated Centrifuge

ESL-24SMTI

## High Speed Refrigerated Centrifuge ESL-24SMTI

Max. RPM	24,000 RPM
Max. RCF	55,193 X g
Max. Capacity	4Liter, 1000ml X 4 Tubes
Display	Dual Display, LCD & FND
Operating mode	RPM, RCF & IW2d
Step mode	5 step programmable
Program memory	10 memory
Drive system	Inverter motor drive
Acceleration	10 profiles
Deceleration	10 profiles
Timer	99Hr. 59min. & Hold for long run
Pre-Condition	pre-cooling
Pre-Condition	-20°C to 40°C
Safety System	Over Speed detector, imbalance detector, Temperature Limit detector, Door detector
Dimension	645 x 960 X 1220(H)mm
Weight	Net. 230kg
Certification	CE, KGMP, ISO9001, ISO14001



Centrifuge Body	1
Fixed angle rotor, V508A	1
Rotor Extractor	1
Level	1
Instruction Manual	1

# Multi-Purpose Refrigerated Centrifuge

ESL-550



## Main Feature

### Multi-Purpose Refrigerated Centrifuge: ESLS-550

Max. RPM	15,000RPM ( Swing 4,500 RPM)
Max. RCF	21,130 x g ( Swing 3,735 X
Max. Capacity	1000ml, 250ml X 4 Tubes
Main control	Microprocessor controller
Running mode	RPM / RCF
Programmability	10 memory
Timer	99Hr. 59min. & Hold for long run
Temperature Range	-20°C to 60°C
Drive system	Inverter Motor drive
Accel rates	Fast / Slow
Decel rates	Fast / Normal / Slow
Safety device	Over speed protect. Over load protect, Unbalance detector, Temp. protector,
Dimension	675x548 X 366(H)mm
Weight	96Kg
Power	220V, 2Kw, 60Hz
Certification	CE, KGMP, ISO9001, ISO14001



# Rotor

ESL-550

## Swing-out Rotor

### Swing Rotor



**VR-55S**  
4500RPM, 3755G  
250ml x 4 tubes, R165mm

### Sealing Bucket



**VC-55**  
250ml  
Sealing Cap available  
Alluminum alloy

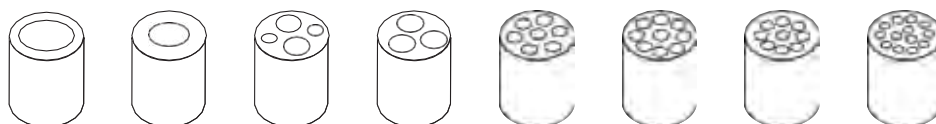
## Micro-plate Rotor

### Micro-plate Rotor

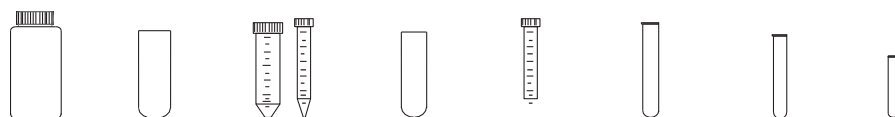


**VR-02MS**  
2500RPM  
2000G  
96well Micro-plate x 2EA

## Tube Rack



Model	R250-1S	R100-1S	R5015-4C	R50-3S	R15-7C	R15-9S	R10-9S	R5-13S
Tube	250ml	100ml	50 & 15 ml	50ml	15ml	15ml	10ml	5ml
Places	1	1	4	3	7	9	9	13
ø x L mm	62 x 128	39 x 106	30 x 115	29 x 104	17 x 120	16 x 114	14 x 100	10 x 75



## Fixed Angle Rotor for VS-550

### Micro & PCR Tube



**VR-C1 combo**  
1.5ml x 28 tubes  
0.4ml x 32 tubes  
14000 RPM, 21475G

### Micro Tube



**V1.524A-55**  
1.5ml x 24tubes  
15000 RPM, 20124G

### Round / Oak ridge



**V1012A-55**  
10ml x 12tubes  
15000 RPM, 21,130G  
**V1512A-55**  
15ml x 12tubes  
14000 RPM, 20817G  
**V506A-55**  
50ml x 6tubes  
14000 RPM, 20817G

### Conical Tube-15ml



**V1512AC-55**  
conical tube  
15ml x 12tubes  
12000 RPM, 16035G  
R99.6mm

### Conical Tube-50ml



**V506AC-55**  
50ml x 6tubes  
12000 RPM, 16180G  
R 100.5mm



## Centrifuge Hand, 2 X 15ml

A single speed hand driven machine consisting of die-cast parts and a steel pinion and worm drive. Screw clamps the machine to the bench. Stove enamelled finish, with removable crank handle. Suitable for 15ml glass tubes.

ESL58528

## Centrifuge Hand, 4 X 15ml

A single speed hand driven machine consisting of die-cast parts and a steel pinion and worm drive. Screw clamps the machine to the bench. Stove enamelled finish, with removable crank handle. Suitable for 15ml glass tubes.

ESL58529



## Centrifuge Tube Sterile Bulk-Pp, 15ml

SPINNING Centrifuge Tube Sterile Bulk-PP,

ESL58537 15ml, 25/pack

ESL58538 50ml, 25/pack



## Centrifuge Tube, Conical Bottom, Graduated

- Manufactured from ASTM E-438, Boro 3.3 glass.
- Ideal for collecting and separating small amounts of solids.
- Uniformly drawn high quality tubing make the tube durable and safer to use.
- Pointed center of the base collects higher density fraction.
- Uniformly drawn high quality tubing make the tube durable.
- These tube comes with conical bottom
- Provided with graduation for greater precision.
- Marking are in White or Blue enamel.

SKU #	Capacity (mL)	OD x Length (mm)	Pack (pcs)
ESL58535/5	5	13 x 100	100
ESL58535/10	10	15 x 110	100
ESL58535/15	15	17 x 120	100
ESL58535/25	25	22 x 125	100
ESL58535/50	50	28 x 140	50



## Pipette Tips With Rack

- Non-sterile autoclavable thin-walled pipette tips
- Available in various packaging
- Free from RNase, DNase, and pyrogenic substances
- Material: 100% virgin polypropylene.
- Autoclavable at 121°C.
- Packaging: bulk (1,000), by rack (1x96), or by refill trays (10x96)

Capacity (μL)	Capacity (μL) Without Rack	SKU # With Rack
0.1–10μL	ESL56955	ESL56955R
10 - 200μL	ESL56956	ESL56956R
100 - 1000μL	ESL56957	ESL56957R



## Eppendorf Tubes 1.5 ml Autoclavable

Alas Description Autoclavable Eppendorf Tubes  
Capacity : 1.5 ml Pk/500 Pcs

ESL58541

## Eppendorf Tubes 2 ml Autoclavable

Alas Description Autoclavable Eppendorf Tubes  
Capacity : 2 ml Pk/500 Pcs

ESL58542







### Vacuum Pump Hand Operated

Handheld vacuum pump with a gauge and a 60 CM tube. Ideal for experimenting with air pressure, atmosphere, vacuum filtration, and leak testing. The pump includes a gauge measuring in inches of Hg and displaces 725 ml of air with a pump rate of 15 ml per stroke. The tubing measures 60 CM in length with a 6mm inner diameter. Capable of reaching up to 29 mmHg. Not designed for heavy continuous use.

ESL58470



### Vacuum Pump Electric

Vacuum pump, electric:

Single stage

Suction capacity 4,6 m<sup>3</sup>/h Ultimate vacuum 10 Pa Noise 46 - 50 dB(A)

Suction connector KS 6/4 mm Motor power 120 W

Voltage source 220 - 240 V / 50 - 60 Hz

Dimension : s 28x12x21 cm

Weight : 7 kg

ESL58471



### Vacuum Pump Electric Lab Use

Oil-free pump. With innovative electronic, mechanical technology and human design concept make Rocker's family quiet and low vibration, compact and light weight, clean and maintenance free, safe and comfortable.

Max. Vacuum: -680mmHg \* Max. Flow: 23 l/Min \* Motor rotation: 1750 RPM \* Horse power: 1/8 HP \* Noise level: 50.0dB

ESL58472





### BOTTLE TOP DISPENSER

Excellent chemical resistance, components are made of PTFE, FEP, BSG, PP  
Fully autoclavable at 121 °C  
Four ranges of bottle-top dispenser covering different volume range  
Easy for cleaning and maintenance  
The optional flexible discharge tube with safety handle permits fast and precise dispensing  
Vapour pressure Max. 500mbar, viscosity Max. 500mm<sup>2</sup>/s, Temperature Max. 40 °C, density Max. 2.2g/cm<sup>3</sup>

<b>ESL58590</b>	Volumes 5 mL	0.5-5 Advance Graduation : 0.1 ml
<b>ESL58591</b>	Volumes 10 mL	1.0-10 Advance Graduation : 0.2 ml
<b>ESL58592</b>	Volumes 25 mL	2.5-25 Advance Graduation : 0.5 ml
<b>ESL58593</b>	Volumes 50 mL	5.0-50 Advance Graduation : 1 ml



### Bottle Top Dispenser Advance

Designed for safe, sturdy & stable dispensing directly from the bottle in the range of volumes up to 5 mL  
O Fast, precise, and reproducible volume locking mechanism on a clear scale  
O Reagent recovery function reduces reagent waste and prevents dripping when not in use  
O Adjustable aspirating tube for different bottle heights  
Features

High chemical compatibility with use of inert materials and glass PTFE piston

- Easy to disassemble and clean for periodic maintenance
- Fully autoclavable at 121 °C to ensure sterility
- Supplied with most popular adapters (540, GL32, GL38, GL25, GL28)

<b>ESL58590ADV</b>	Volumes 5 mL	0.5-5 Advance Graduation : 0.1 ml
<b>ESL58591ADV</b>	Volumes 10 mL	1.0-10 Advance Graduation : 0.2 ml
<b>ESL58592ADV</b>	Volumes 25 mL	2.5-25 Advance Graduation : 0.5 ml
<b>ESL58593ADV</b>	Volumes 50 mL	5.0-50 Advance Graduation : 1 ml
<b>ESL58594ADV</b>	Volumes 100 mL	10-100 Advance Graduation : 2 ml

### Bottle Top Dispenser Electronic 0.1-99.9 ml

- Motor operation minimizes the grip force
- Electronic control decreases the repetitive strain injury
- Remote control panel prevents manual disturbance during operation
- Two Dispensing modes, dispenser and stepper function options

Volume Range : 0.1-99.9mL, Max piston lift is 10mL, resolution is 100µL  
Volume Accuracy Dispenser: R = 10mL ±30µL; CV = 10ml ±10µL  
Stepper: R = 1mL ±6µL; CV = 1ML ±9µL  
Operating Temperature Range 10°C-30°C  
Quality Control DIN EN ISO 8655  
Control Type External control

ESL58595



### Electronic Titrator, (Electronic Burette ) 0.01 - 99.99 ml

Digital Burette - provides accurate, precise and convenient bottle-top titration with optimum operator safety.  
It combines both magnetic stirrer and Burette functions, making it easier for the user to achieve reproducible results in the field of analytical chemistry, food industry, water analysis etc,  
High quality motor with excellent precision and accuracy  
Electronic control provides fatigue-free operation  
Remote control panel prevents manual disturbance during operation  
Built -In magnetic stirrer for a complete and easy operation  
Large LOD display parameter  
Volume Range : 0.01 ml -99.99ml, Max piston lift is 10ml, resolution is 10µl.  
Volume Accuracy : R=0.2% CV=0.07%  
Speed Level : 16 stages  
Operating Temperature Range :10°C-30°C  
Quality Control : DIN EN ISO 8655  
Control Type : External control, including the stirrer and the burette program

ESL58598



## Pipette Controller

### Features

- Ease of use
  - Precise pipetting control
  - Robust and light weight
- Compatible with most of the plastic and glass pipettes from 0.1 -100mL
- 3µm replaceable hydrophobic filter
  - Easy for cleaning and maintenance

ESL58568



3µm replaceable Hydrophobic filter

Silicone adapter for 0.1-100mL pipette tip, fully autoclavable



Compress the suction bellows before attaching the pipette

Button to expel residual liquid when using blow-out pipette

Aspiration and dispensing comfortably achieved with a sensitive lever



## Pipette Pump

Designed for single-handed operation, Pipette Pump identifies itself with a thumbwheel, allowing precise aspiration or dispensing. The feature of side lever enables complete liquid dispensing, without a droplet remaining.

### Features

- Volume capacity 2mL, 10mL and 25mL
- Colour-coded by volume with green, blue and red
- Thumb wheel guarantees precise operation
- Resistant to acids and alkalis
- Easy for cleaning and maintenance

ESL56390 2 ML

ESL56391 5 ML

ESL56392 10 ML

ESL56393 25 ML

Volumes	Color
200ul	Gray
100ul	Blue
75ul	Red
50ul	Orange
30ul	Yellow
25ul	Dark Green
OEM	Optional

## Mini Pipette

### Features

- Ergonomic design provides excellent operation experience;
- Smart body, ideal to combine with IVD reagents;
- Compatible with universal 200µl tips;
- Various volumes from 25ul to 200ul, different color for different volumes, easy to choose;
- Entire body by one-time molding, robust to use.



# Pipette Filler Electronic Basic

ESL58569

Elegant design & reliable performance, with long-life battery

## Features

- Enables single-handed operation with minimum effort
- Speed adjustment simply with finger tips
- Individually set aspiration (upper button) and dispensing (lower button) speeds
- Compatible with glass or plastic serological pipettes (0.1- 100mL)
- 0.45µm replaceable hydrophobic filter
- High capacity Li-ion battery enables long operation time

Large LCD display showing low battery warning and speed settings

Select the desired coarse speed by pressing the button +/-



## Pipette Filler Electronic ADV

ESL58570

## Features

Features

- Compatible with most of the plastic and glass pipettes from 0.1-100mL
- Six different speed modes for aspiration and dispensing different liquids
- Large LCD display showing low battery warning and speed settings
- Enables single-handed operation with minimum effort
- Light and ergonomic design providing easy usability
- High capacity Li-ion battery enable long runtime of operation
- Powerful pump fills a 25mL pipette in <5 seconds
- 0.45µm replaceable hydrophobic filter
- Rechargeable during use

Aspiration operation buttons  
Operating button for motor and gravity dispensing



Hydrophobic filter 0.45µm  
Silicone adapter for 0.1-100mL pipette tip, fully autoclavable

Specifications	ESL58569	ESL58570
Aspiration Speed	25mL<5s (6 shift)	25mL<5s (7 shift)
Dispensing Speed		Motor/Gravity
Battery		Lithium-ion
Battery Service Life	More than 8 Hours of Intermittence Use	
Charging Time	2-3 Hours	
Pipette Types	Glass or Plastic Pipette (0.1-100mL), Pasteur Pipettes	
Filter	0.45µm Hydrophobic	
Weight	200g	





## Micro-Pipette Fixed Volume Basic

Mechanical, Single-channel Fixed Volume Basic grade of mechanical pipettes from with autoclavable lower half. Each of these high quality laboratory pipettes comes with an individual test certificate, that adheres to ISO8655. Our pipette is one of the most lightweight and easy to operate pipettes on the market.

### Features

- Light weight, ergonomic, low force design
- The pipettes cover volume range of 0.1µL to 10mL
- Easy to calibrate and maintain with tool supplied
- Design helps avoid repetitive strain injuries
- Calibrated in accordance with ISO8655.
- The lower section can be autoclaved

Fixed Volume Pipettes							
SKU	Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
				(Accuracy error)		(Precision error)	
				%	µL	%	µL
ESL58572/5UL	5µL	-	5ul	1.30%	0.065	1.20%	0.06
ESL58572/10UL	10µL	-	10µL	0.80%	0.08	0.80%	0.08
ESL58572/20UL	20µL	-	20µL	0.60%	0.12	0.50%	0.1
ESL58572/25UL	25µL	-	25µL	0.50%	0.125	0.30%	0.075
ESL58572/50UL	50µL	-	50µL	0.50%	0.25	0.30%	0.15
ESL58572/100UL	100µL	-	100µL	0.50%	0.5	0.30%	0,3
ESL58572/200UL	200µL	-	200µL	0.40%	0.8	0.20%	0.4
ESL58572/250UL	250µL	-	250µL	0.40%	1	0.20%	0.5
ESL58572/500UL	500uL	-	500µL	0.30%	1.5	0.20%	1
ESL58572/1000UL	1000µL	-	1000uL	0.30%	3	0.20%	2,0
ESL58572/2000UL	2000µL	-	2000uL	0.30%	6	0.15%	3
ESL58572/5000UL	5000µL	-	5000uL	0.30%	15	0.15%	7.5

## Micro-Pipette Fixed Volume Advance

The pipette is fully autoclavable, being able to withstand temperatures of 121°C and pressure of 1ATM, and does not need to be pre-treated prior. Following the autoclave cycle, a 12 hour cooling and drying period ensures that the high performance of the Micro-Pipette Fixed Volume Advance is retained. It is recommended the piston and rubber seals be greased after every 10 cycles of autoclaving.

### Features

- Streamlined shape design
- Comprehensive volume range from 0.1µL to 10mL
- Easy calibration and maintenance
- Dispensing head rotates for effortless pipetting convenience
- Individual piston and tip cone assembly
- Spring loaded tip cones for easy cleaning and maintenance
- Compound material-made tip cone secures high sealing performance

Fixed Volume Pipettes							
SKU	Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
				(Accuracy error)		(Precision error)	
				µL	%	µL	%
ESL58571/5UL	5µL	-	5µL	±0.065	±1.3	±0.06	±1.2
ESL58571/10UL	10µL	-	10µL	±0.08	±0.8	±0.08	±0.8
ESL58571/20UL	20µL	-	20µL	±0.12	±0.6	±0.1	±0.5
ESL58571/25UL	25µL	-	25µL	±0.125	±0.5	±0.075	±0.3
ESL58571/50UL	50µL	-	50µL	±0.25	±0.5	±0.15	±0.3
ESL58571/100UL	100µL	-	100µL	±0.5	±0.5	±0.3	±0.3
ESL58571/200UL	200µL	-	200µL	±0.8	±0.4	±0.4	±0.2
ESL58571/250UL	250µL	-	250µL	±1.0	±0.4	±0.5	±0.2
ESL58571/500UL	500uL	-	500uL	±1.5	±0.3	±1.0	±0.2
ESL58571/1000UL	1000µL	-	1000µL	±3.0	±0.3	±2.0	±0.2
ESL58571/2000UL	2000µL	-	2000µL	±6.0	±0.3	±3.0	±0.15
ESL58571/5000UL	5000µL	-	5000µL	±15	±0.3	±7.5	±0.15



# Micro-pipette Variable Range Basic

Single-Channel Adjustable Mechanical Pipette

## Features

- The pipette cover wide of variable Volume range
- Light weight, ergonomic, low force design
- The pipettes cover volume range of 0.1µL to 10mL
- Easy to calibrate and maintain with tool supplied
- Design helps avoid repetitive strain injuries
- Calibrated in accordance with ISO8655.
- The lower section can be autoclaved

Single-channel Adjustable Volume Pipettes Error limits in accordance with ISO8655-2

SKU	Volume Range	Increment	Test Volume	(Accuracy error)		(Precision error)	
				%	µL	%	µL
ESL58573	0.1-2.5µL	0.05µL	2.5µL	2.50%	0.0625	2.00%	0.05
			1.25µL	3.00%	0.0375	3.00%	0.0375
			0.25µL	12.00%	0.03	6.00%	0.015
ESL58574	0.5-10µL	0.1µL	10µL	1.00%	0.1	0.80%	0.08
			5µL	1.50%	0.075	1.50%	0.075
			1µL	2.50%	0.025	1.50%	0.015
ESL58575	2-20µL	0.5µL	20µL	0.90%	0.18	0.40%	0.08
			10µL	1.20%	0.12	1.00%	0.1
			2µL	3.00%	0.06	2.00%	0.04
ESL58576	5-50µL	0.5µL	50µL	0.60%	0.3	0.30%	0.15
			25µL	0.90%	0.225	0.60%	0.15
			5µL	2.00%	0.1	2.00%	0.1
ESL58577	10-100µL	1µL	100µL	0.80%	0.8	0.15%	0.15
			50µL	1.00%	0.5	0.40%	0.2
			10µL	3.00%	0.3	1.50%	0.15
ESL58578	20-200µL	1µL	200µL	0.60%	1.2	0.15%	0.3
			100µL	0.80%	0.8	0.30%	0.3
			20µL	3.00%	0.6	1.00%	0.2
ESL58579	50-200µL	1µL	200µL	0.60%	1.2	0.15%	0.3
			100µL	0.80%	0.8	0.30%	0.3
			50µL	1.00%	0.5	0.40%	0.2
ESL58580	100-1000µL	5µL	1000µL	0.60%	6	0.20%	2
			500µL	0.70%	3.5	0.25%	1.25
			100µL	2.00%	2	0.70%	0.7
ESL58581	200-1000µL	5µL	1000µL	0.60%	6	0.20%	2
			500µL	0.70%	3.5	0.25%	1.25
			200µL	0.90%	1.8	0.30%	0.6
ESL58582	1000-5000µL	50µL	5000µL	0.50%	25	0.15%	7.5
			2500µL	0.60%	15	0.30%	7.5
			1000µL	0.70%	7	0.30%	3
ESL58583	2-10mL	0.1mL	10mL	0.60%	60	0.20%	20
			5mL	1.20%	60	0.30%	15
			2mL	3.00%	60	0.60%	12



## Micro-Pipette Variable Volume Advance

The pipette is fully autoclavable, being able to withstand temperatures of 121°C and pressure of 1ATM, and does not need to be pre-treated prior. Following the autoclave cycle, a 12 hour cooling and drying period ensures that the high performance of the Micro-Pipette Fixed Volume Advance is retained. It is recommended the piston and rubber seals be greased after every 10 cycles of autoclaving.

### Features

- Streamlined shape design
- Comprehensive volume range from 0.1µL to 10mL
- Easy calibration and maintenance
- Dispensing head rotates for effortless pipetting convenience
- Individual piston and tip cone assembly
- Spring loaded tip cones for easy cleaning and maintenance
- Compound material-made tip cone secures high sealing performance



Labware

Error limits in accordance with ISO8655-2

SKU	Volume Range	Increment	Test Volume	Systematic Error		Random Error	
				µL	%	µL	%
ESL58573A	0.1-2.5	0.05	2.5	±0.0625	±2.50	±0.05	±2.00
			1.25	±0.0375	±3.00	±0.0375	±3.00
			0.25	±0.03	±12.00	±0.015	±6.00
ESL58574A	0.5-10	0.1	10	±0.1	±1.00	±0.08	±0.80
			5	±0.075	±1.50	±0.075	±1.50
			1	±0.025	±2.50	±0.015	±1.50
ESL58575A	2 - 20	0.5	20	±0.18	±0.90	±0.08	±0.04
			10	±0.12	±1.20	±0.1	±1.00
			2	±0.06	±3.00	±0.04	±2.00
ESL58576A	5 - 50	0.5	50	±0.3	±0.60	±0.15	±0.30
			25	±0.225	±0.90	±0.15	±0.60
			5	±0.1	±2.00	±0.1	±2.00
ESL58577A	10-100	1	100	±0.8	±0.80	±0.15	±0.15
			50	±0.5	±1.00	±0.2	±0.40
			10	±0.3	±3.00	±0.15	±1.50
ESL58578A	20-200	1	200	±1.2	±0.60	±0.3	±0.15
			100	±0.8	±0.80	±0.3	±0.30
			20	±0.6	±3.00	±0.2	±1.00
ESL58579A	50-200	1	200	±1.2	±0.60	±0.3	±0.15
			100	±0.8	±0.80	±0.3	±0.30
			50	±0.5	±1.00	±0.2	±0.40
ESL58580A	100-1000	5	1000	±6	±0.60	±2	±0.20
			500	±3.5	±0.70	±1.25	±0.25
			100	±2	±2.00	±0.7	±0.70
ESL58581A	200-1000	5	1000	±6	±0.60	±2	±0.20
			500	±3.5	±0.70	±1.25	±0.25
			200	±1.8	±0.90	±0.6	±0.30
ESL58582A	1000-5000	50	5000	±25	±0.50	±7.5	±0.15
			2500	±15	±0.60	±7.5	±0.30
			1000	±7	±0.70	±3	±0.30





## Micro-Pipette Variable Volume Pro

new generation fully autoclavable mechanical pipette has the best ergonomic design and ultralight weight. It has been designed keeping in mind the human form and human factors to offer smooth and effortless ergonomic pipetting experience. It is UV sterilisable and resistant to strong chemical corrosion. In addition, the volume lock helps protect from volume changing accidentally, and achieve reliable pipetting of smallest volume of liquids.

### Features

Ultra-light ergonomic design : Light weight and light pipetting force with soft range adjustment and piston movement offers effortless & fatigue-less pipetting experience.

Accurate pipetting : Special material and the updated components & technologies effectively reduces the operating force for accuracy, precision and reliability..

Complete sterilization : The best in class pipette material used is fully autoclavable. It gives better protection against chemical & physical corrosion, and offers enhanced UV resistance for higher durability.

Error limits in accordance with ISO8655-2

SKU	Volume Range	Increment	Test Volume	Systematic Error		Random Error	
				µL	%	µL	%
ESL58573P	0.1-2.5	0.002	2.5	±0.04	±1.4	±0.02	±0.7
			1.25	±0.03	±2.5	±0.02	±1.5
			0.25	±0.03	±12.0	±0.02	±6.0
ESL58574P	0.5-10	0.01	10	±0.10	±1.0	±0.04	±0.4
			5	±0.08	±1.5	±0.04	±0.8
			1	±0.03	±2.5	±0.02	±1.8
ESL58575P	2 -20	0.02	20	±0.20	±1.0	±0.06	±0.3
			10	±0.12	±1.2	±0.06	±0.6
			2	±0.10	±5.0	±0.03	±1.5
ESL58576P	5- 50	0.05	50	±0.45	±0.9	±0.15	±0.3
			25	±0.35	±1.4	±0.20	±0.8
			5	±0.15	±3.0	±0.08	±1.6
ESL58577P	10-100	0.1	100	±0.80	±0.8	±0.20	±0.2
			50	±0.50	±1.0	±0.15	±0.3
			10	±0.30	±3.0	±0.10	±1.0
ESL58578P	20-200	0.2	200	±1.20	±0.6	±0.40	±0.2
			100	±1.00	±1.0	±0.30	±0.3
			20	±0.50	±2.5	±0.14	±0.7
ESL58579P	30-300	0.2	300	±1.80	±0.6	±0.60	±0.2
			150	±1.50	±1.0	±0.45	±0.3
			30	±0.75	±2.5	±0.21	±0.7
ESL58580P	100-1000	1	1000	±6.00	±0.6	±2.00	±0.2
			500	±5.00	±1.0	±1.00	±0.2
			100	±3.00	±3.0	±0.60	±0.6
ESL58581P	1000-5000	5	5000	±30.00	±0.6	±10.00	±0.2
			2500	±15.00	±0.6	±7.50	±0.3
			1000	±12.00	±1.2	±3.00	±0.3
ESL58582P	2000-10000	10	10000	±60.00	±0.6	±20.00	±0.2
			5000	±40.00	±0.8	±10.00	±0.2
			2000	±30.00	±1.5	±6.00	±0.3





## Micro-Pipette Multi Channel Variable Range Basic

Multi-channel, Mechanical, 8 & 12 - channel Adjustable

### Features

- Light weight, ergonomic, low force design
- The pipettes cover volume range of 0.1µL to 10mL
- Easy to calibrate and maintain with tool supplied
- Design helps avoid repetitive strain injuries
- Calibrated in accordance with ISO8655.
- The lower section can be autoclaved
- 8 and 12 channel pipettes are available for standard 96-well plate
- Dispensing head rotates for optimum pipetting convenience
- Individual piston and tip cone assemblies allow easy repair and maintenance
- Compound material tip cone design allows visual seal verification
- Can be used with universal style pipette tips



8-channel Adjustable Volume Pipettes

SKU	Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
				(Accuracy error)		(Precision error)	
				%	µL	%	µL
ESL58584/0.51	0.5-10µL	0.1µL	10µL	1.50%	0.15	1.50%	0.15
			5µL	2.50%	0.125	2.50%	0.125
			1µL	4.00%	0.04	4.00%	0.04
ESL58584/55	5-50µL	0.5µL	50µL	1.00%	0.50	0.50%	0.25
			25µL	1.50%	0.375	1.00%	0.25
			5µL	3.00%	0.15	2.00%	0.1
ESL58584/503	50-300µL	5µL	300µL	0.70%	2.1	0.25%	0.75
			150µL	1.00%	1.5	0.50%	0.75
			50µL	1.50%	0.75	0.80%	0.4

12-channel Adjustable Volume Pipettes

SKU	Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
				(Accuracy error)		(Precision error)	
				%	µL	%	µL
ESL58585/0.51	0.5-10µL	0.1µL	10µL	1.50%	0.15	1.50%	0.15
			5µL	2.50%	0.125	2.50%	0.125
			1µL	4.00%	0.04	4.00%	0.04
ESL58585/55	5-50µL	0.5µL	50µL	1.00%	0.5	0.50%	0.25
			25µL	1.50%	0.375	1.00%	0.25
			5µL	3.00%	0.15	2.00%	0.1
ESL58585/503	50-300µL	5µL	300µL	0.70%	2.1	0.25%	0.75
			150µL	1.00%	1.5	0.50%	0.75
			50µL	1.50%	0.75	0.80%	0.4



# Micro-Pipette Multi Channel

## Variable Range Advance

Multi-channel, Mechanical, 8 & 12 - channel Adjustable

### Features

- Light weight, ergonomic, low force design
- The pipettes cover volume range of 0.1µL to 10mL
- Easy to calibrate and maintain with tool supplied
- Design helps avoid repetitive strain injuries
- Calibrated in accordance with ISO8655.
- The lower section can be autoclaved
- 8 and 12 channel pipettes are available for standard 96-well plate
- Dispensing head rotates for optimum pipetting convenience
- Individual piston and tip cone assemblies allow easy repair and maintenance
- Compound material tip cone design allows visual seal verification
- Can be used with universal style pipette tips



8-channel Adjustable Volume Pipettes

SKU	Volume Range	Increment	Test Volume	Systematic Error		Random Error	
				µL	%	µL	%
ESL58584/0.51A	0.5-10	0.1	10	±0.15	±1.50	±0.15	±1.50
			5	±0.125	±2.50	±0.125	±2.50
			1	±0.04	±4.00	±0.04	±4.00
ESL58584/55A	May-50	0.5	50	±0.5	±1.00	±0.25	±0.50
			25	±0.375	±1.50	±0.25	±1.00
			5	±0.15	±3.00	±0.1	±2.00
ESL58584/101A	10-100	1	100	±0.8	±0.80	±0.3	±0.30
			50	±0.5	±1.00	±0.4	±0.80
			10	±0.3	±3.00	±0.2	±2.00
ESL58584/503A	50-300	5	300	±2.1	±0.70	±0.75	±0.25
			150	±1.5	±1.00	±0.75	±0.50
			50	±0.75	±1.50	±0.4	±0.80
ESL58584/1010A	100-1000	10	1000	±10	±1.00	±3	±0.30
			500	±10	±2.00	±2.5	±0.50
			100	±5	±5.00	±1	±1.00

12-channel Adjustable Volume Pipettes

SKU	Volume Range	Increment	Test Volume	Systematic Error		Random Error	
				µL	%	µL	%
ESL58585/0.51A	0.5-10	0.1	10	±0.15	±1.50	±0.15	±1.50
			5	±0.125	±2.50	±0.125	±2.50
			1	±0.04	±4.00	±0.04	±4.00
ESL58585/55A	May-50	0.5	50	±0.5	±1.00	±0.25	±0.50
			25	±0.375	±1.50	±0.25	±1.00
			5	±0.15	±3.00	±0.1	±2.00
ESL58585/101A	10-100	1	100	±0.8	±0.80	±0.3	±0.30
			50	±0.5	±1.00	±0.4	±0.80
			10	±0.3	±3.00	±0.2	±2.00
ESL58585/503A	50-300	5	300	±2.1	±0.70	±0.75	±0.25
			150	±1.5	±1.00	±0.75	±0.50
			50	±0.75	±1.50	±0.4	±0.80



## Electronic Micropipette

### Features

- Motor driven digitally control pipette with multifunction's
- Easy Operations and Handling
- intuitive menu interface settings; functions and operations
- Minimal force for pipetting operation
- High performance ensuring accuracy & repeatability
- 2 buttons for all operational settings
- Adjustable speed for aspiration and dispensing
- Li-ion battery enable longer Operative time
- Convenient and Versatile
- Self-calibration applicable



**Electronic Pipette Plus**  
For Pipetting Mixing, Stepper  
and Dilution



**Electronic E Pipette**  
For Pipetting  
and Mixing

SKU	Channels	Volume Range	Increment	Test Volume	Accuracy Error		Precision Error	
		µL	µL	µL	µL	%	µL	%
ESL58586E1	1	0.5-10	0.01	10	±0.10	±1.00	±0.05	±0.50
ESL58587EP1				1	±0.035	±3.50	±0.03	±3.00
ESL58586E5	1	5-50	0.1	50	±0.40	±0.80	±0.15	±0.30
ESL58587EP5				5	±0.15	±3.00	±0.125	±2.50
ESL58586E3	1	30-300	1	300	±1.80	±0.60	±0.60	±0.20
ESL58587EP3				30	±0.09	±3.00	±0.21	±0.70
ESL58586E10	1	100-1000	5	1000	±6.00	±0.60	±2.00	±0.20
ESL58587EP10				100	±3.00	±3.00	±0.60	±0.60

specifications are used as guidelines on the user calibration should refer to the industrial standard ISO 8655





### Pipettes Stand Linear

The universal linear pipette holder designed and manufactured by ES is compatible with our pipette series. It can stably and conveniently hold up to 8 single-channel and multi-channel pipettes simultaneously, and up to 10 pipettes. This holder is a practical tool for laboratory pipetting operations due to its stability and convenience.

ESL58588



### Pipettes Stand Round

The universal circular pipette holder designed and manufactured by ES is compatible with the Dragon pipette series - MicroPette Plus pipettes. The freely rotatable circular pipette holder can securely hold up to 6 single and multi-channel pipettes.

ESL58588R

## Multi-Functional 8-channel Electronic Pipette

ES multi-functional high performance 8-channel electronic pipette offer productive pipetting with its easy to understand operations. Its uniquely lightweight streamlined design ensures an effortless transfer of multiple samples with an increased throughput and data reproducibility.

### Easy Operation

Intuitive interface for setting functions and parameters.

### Ergonomic Design

Low operation forces for complete work, which is exceptionally fatigue-free.

### Convenient and Versatile

360° pipetting. Double knobs for simple and versatile control. Easy loading tip cones offers smooth and leak free operation.

### Dual charging modes

Use of USB charger or the charging stand to ensure uninterrupted use.



### Three easy steps to operate

1

Long press the Parameter Knob for 2 seconds to Start

2

Quickly turn the Function wheel to Activate, Rotate to Switch Pipetting, Continuous Dispensing, and other Function Settings

3

After quickly turning the Parameter Knob to Unlock, Turn to Adjust the Volume, Press to Pipette, Long press to Mix





# Electronic Pipette

## Pipetting function

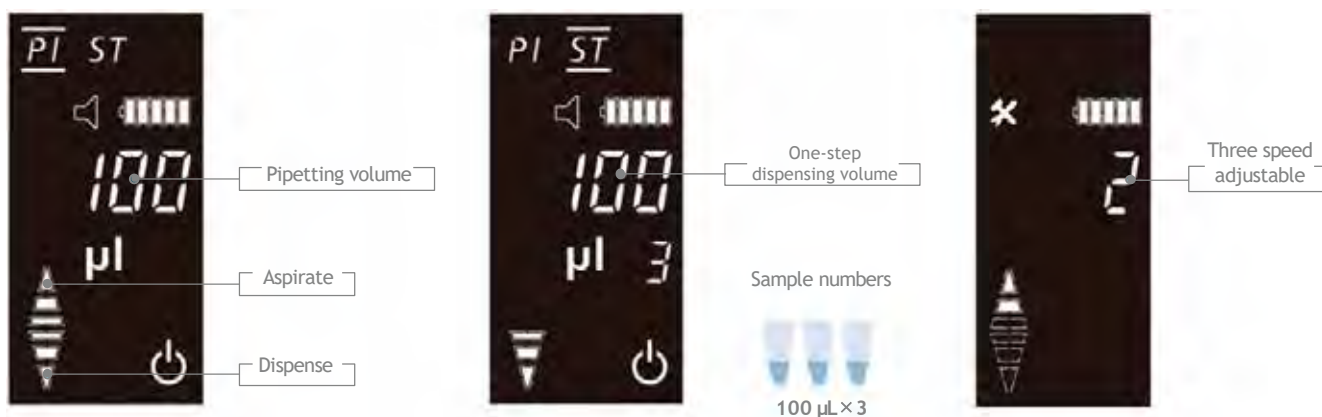
Parameter Knob press    Pipetting  
Long press    Mixing

## Stepper function

Maximum steps = Pipette nominal volume / One step  
dispensing volume

## Other function

Pipetting speed adjustment Key tone ON/OFF



## Supports dual charging mode



## Support automatic Calibration

Connect it to the computer, with the free software provided for calibration.

## Specifications

8-channel Adjustable Volume Pipettes							
SKU	Volume Range	Increment	Test Volume	Systematic Error		Random Error	
				µL	%	µL	%
ESL58589/8E1	8	0.5-10	0.01	10	±0.20	±2.00	±0.10
				5	±0.20	±4.00	±0.10
				1	±0.08	±8.00	±0.05
ESL58589/8E10	8	10-100	0.1	100	±0.80	±0.80	±0.30
				50	±0.50	±1.00	±0.40
				10	±0.30	±3.00	±0.20
ESL58589/8E15	8	15-300	1	300	±1.80	±0.60	±0.90
				150	±1.50	±1.00	±0.75
				15	±0.60	±4.00	±0.15
ESL58589/8E3	8	30-300	1	300	±1.80	±0.60	±0.90
				150	±1.50	±1.00	±0.75
				30	±0.90	±3.00	±0.30



# PCR Thermal Cycler Basic

ESL58602

## Features

- 3 driving modes
- From the display screen, PC, or tablet. Modifying, creating, deleting, programming is simplified and infinitely customizable.
- From 5 °C to 100 °C in a few seconds!
- Amplification times are short (25 to 70 min) because the thermocycler benefits from a Peltier effect module. It also has a sample conservation mode at 4°C at the end of the amplification. CE standards compliant.
- Free PCR software to download
- Real-time monitoring (progress, cycles, duration)
- Counter for the number of theoretical copies
- Animation synchronized with the cycle progress
- Experiment files and educational videos available

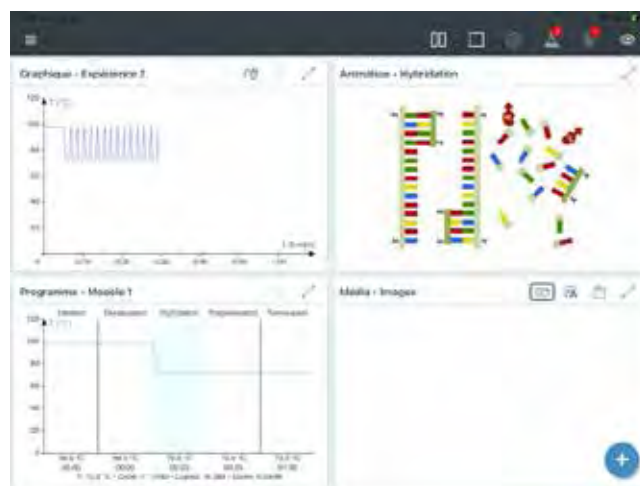
## Technical Parameters

Sample volume	0.2 mL
Maximum number of customizable programs	Unlimited
Screen	128 x 64 mm
Display accuracy	0.1 °C
Number of blocks	1
Temperature accuracy at 55 °C	±0.2 °C
Max number of programs stored	8
Dimensions (L x W x H)	225 x 140 x 100 mm
Temperature scale	1 to 99 °C
Number of samples	16
Heating rate	3 °C/s
Bluetooth data transfer,	USB cable



Thermocycler with screen and knob for displaying and programming cycles.

Supplied with control software for PC or tablet to download.



## PCR Thermal Cycler Basic System Complete Package

ESL58602SET

### The package consists of:

- 1 didactic 16-well PCR thermocycler ref. ESL58602,
- 1 electrophoresis tank with trans illuminator ESB52162 and 1 micropipette 2/20 µl ref. ESL58575
- 1 PCR Express DNA replication kit ,
- 1 micro-centrifuge DLAB ® D1008 7000 Trm ref. ESL58503,
- 1 refrigerated rack for PCR micro tube ref. ESL56950,
- 1 rack of 96 pipette tips 0-200 µl ref. ESL556956R



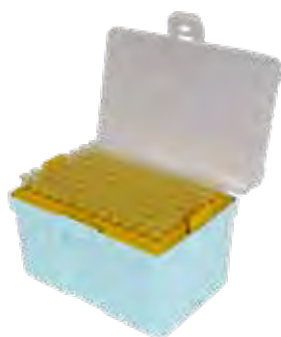
PCR Thermal Cycler Basic  
ESL58602S



Refrigerated Rack for PCR  
ESL56950



Auto Pipettes Single Channel  
ESL58575



Rack of 96 Pipette Tips 0-200 µl  
ESL556956R



Micro Centrifuge  
ESL58503



Electrophoresis System  
ESB52162



# Thermal Cycler Regression

ESL58603G

## Thermal Cycler Regression Advance

ESL58603GA

## Thermal Cycler Standard

ESL58603S

Thermal cycler is essential laboratory instrument in the field of molecular biology research such as sequencing, gene cloning, gene expression, mutagenesis applications and applied market like drug discovery, agriculture, food industry, etc.

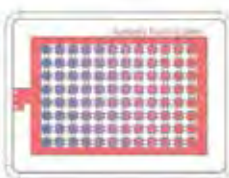
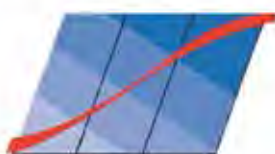
Labware



Excellent Temperature uniformity



Gradient function



### Features

- High performance long life Peltier and independent control circuits for different heating segments implement accurate temperature control
- Auxiliary heating mechanism diminishes the "edge effect" and enhance the temperature uniformity
- Wide touchdown PCR temperature range (-9.9°C~+9.9°C) and Long PCR time range (-9min59s~+9min59s)
- Gradient temperature setting supported, optimizing temperature easily in the single run
- User friendly interface on 7 inch color touch screen enable you edit the program very simple
- The PCR touch screen pen improves the operation experience and reduces the cross contamination risk



## More features

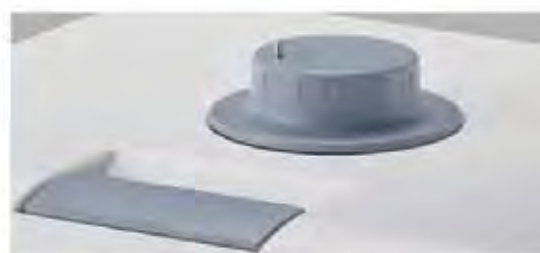
- Wide options of consumables common PCR tubes, 8-well PCR strips and 96-well PCR plates can be used
- File customization, multi-file storage
- Power-off protection function, automatic program recovery
- Hot lid auto-off function: If the module temperature is lower than 30°C, the hot lid function will automatically turn off



LCD touch panel



Excellent temperature accuracy



Specifications	ESL58603G	ESL58603GA	ESL58603S
Sample Capacity	96 × 0.2 mL PCR tube - 12 × 0.2 mL PCR-8 strips - 0.2 mL 96 PCR Microplate		
Heating Temperature Range / °C	4-105	4-105	0-105
Lid Temperature Range / °C	30-110	30-110	30-115
Temperature Display Accuracy / °C	± 0.1	± 0.1	± 0.1
Temperature Display Accuracy@55°C	± 0.3	± 0.3	± 0.1
Temperature uniformity@55°C	< 0.3	< 0.3	± 0.2
Max. Heating/Cooling Rate	5°C/Sec	5°C/Sec	5°C/Sec
Gradient Temperature Setting Range / °C	-	30-99	30-105
Gradient Range / °C	-	1-42	1-42, enter 0 to turn off the gradient.
Temperature control method	Block/Tube	Block/Tube	Block/Tube
Adapter block material	Aluminum	Aluminum	Aluminum
Display	7"LCD 800 × 480	7"LCD 800 × 480	7"LCD 1024 × 600
Input	Touch panel	Touch panel	Touch panel
Computer host system	-	-	Yes
Communication interface	-	-	USB、WIFI
User defined file system	Max.30 segments 99 cycles, and storage for over 200 files		20000+ (USB FLASH)
Power off protection	Yes	Yes	Yes





# Digital Rotary Evaporator

ESL58609

LCD Digital Rotary Evaporator is an essential instrument in chemical laboratories for the efficient and gentle removal of solvents from samples by evaporation. It offers an excellent distilling solution in a wide range of applications.

- Digital display of both rotation speed and heating temperature allows for optimal control of all distillation processes
- Automatic motor lift releases the evaporating flask to a safe position in case of power failure
- 5L heating bath with wide temperature range from room temp. to 180°C, Water/oil heating mode can be changed only through a switch
- Overheating protection temperature at 220°C
- Boil-dry protection, automatically power off if heating without water/oil in the heating bath
- Speed range from 20 to 280rpm, and interval operation in clockwise and anticlockwise directions for drying process
- Patented condenser (cooling surface 1700cm<sup>2</sup>) with excellent cooling effect
- Ejection mechanism ensures easy removal of evaporating flask
- Patented double spring sealing ring made of PTFE provides an excellent sealing performance
- Remote function provides PC control and data transmission
- Optional glassware with explosion proof film available.

ESL58609

Labware



Large LCD display



USB connector



Chemical resistance



Overheating protection



Compatible with all range of glassware

Specifications	ESL58609
Motor Type	Brushless DC motor
Speed Range	20-280rpm
Display	LCD(speed, temperature, time)
Clockwise and Anti-clockwise	Yes
Heating Temperature Range	Room temp. to 180°C
Control Accuracy	water: + 1°C oil: + :3°C
Heating Power	1300W
Stroke Displacement	automatic 150mm
Timer	Yes
Time Setting Range	1-999min
Dimension[DxWxH]	465x457x583mm
Weight	15kg
Permissible Ambient Temperature	5-40°C
Permissible Relative Humidity	80%RH
Protection Class	IP20
USB Interface	Yes
Voltage/Frequency	100-120/200-240V50/60Hz
Power	1400 W





## Pharmacy & Lab Refrigerator (+2/25C)

Temperature setting range +2 to +15 °C  
 Gas: environmentally friendly R290 gas  
 Exterior: White skin plate metal sheet  
 Interior: Stainless steel AISI 304 for perfect highiene  
 CE certified. Company have ISO 9001:2015 certification  
 2 year warranty on parts  
 Forced air cooling circulation  
 Automatic defrost  
 Extra probe for product temperature simulation  
 Inbuilt data logger, that creates a pdf file with temperature graphics  
 and alarms. USB for data retrieval  
 Battery back up to keep controller and alarms working for at least 26 hours after power failure  
 Safety thermostat to prevent temperatures to go below 2 degrees.

SKU NO	Ext.Dimn.	Int.Dimn.	NO. Shelves	Vol
ESG59027	W600 x D600 x H835 mm	W480 x D410 x H690 mm	2 + 1	122 Ltr
ESG59028	W600 x D700 x H1510 mm	W480 x D500 x H1358 mm	5	324 Ltr
ESG59029	W600 x D700 x H1865 mm	W480 x D500 x H1724 mm	5	416 Ltr
ESG59030	W720 x D840 x H2020 mm	W560 x D665 x H1440 mm	4	535 Ltr
ESG59031	W1440 x D840 x H2020 mm	W1255 x D665 x H1440 mm	8	1225 Ltr

## Pharmacy & Lab Refrigerator (+2/25C) Glass Door



Temperature setting range +2 to +15 °C  
 Gas: environmentally friendly R290 gas  
 Exterior: White skin plate metal sheet  
 Interior: Stainless steel AISI 304 for perfect highiene  
 CE certified. Company have ISO 9001:2015 certification  
 2 year warranty on parts  
 Forced air cooling circulation  
 Automatic defrost  
 Extra probe for product temperature simulation  
 Inbuilt data logger, that creates a pdf file with temperature graphics and alarms.  
 USB for data retrieval  
 Battery back up to keep controller and alarms working for at least 26 hours after pov  
 Safety thermostat to prevent temperatures to go below 2 degrees.



SKU NO	Ext.Dimn.	Int.Dimn.	NO. Shelves	Vol
ESG59027G	W600 x D600 x H835 mm	W480 x D410 x H690 mm	2 + 1	122 Ltr
ESG59028G	W600 x D700 x H1510 mm	W480 x D500 x H1358 mm	5	324 Ltr
ESG59029G	W600 x D700 x H1865 mm	W480 x D500 x H1724 mm	5	416 Ltr
ESG59030G	W720 x D840 x H2020 mm	W560 x D665 x H1440 mm	4	535 Ltr
ESG59031G	W1440 x D840 x H2020 mm	W1255 x D665 x H1440 mm	8	1225 Ltr



# Flake Ice Maker

ELS-625FS

ESL-625F

ESL-625

## Features

- Flake Type Ice Maker
- Full Automation
- Screw Turbine Level



Flake Type Ice



Water Filter  
WF-001



Water Filter  
WF-004



Water Pump  
WP-001



Flake Ice Maker		ESL-625FS	ESL-625F	ESL-625
Production Day		80 kg	120 Kg	180 KG
Storage Capacity		58 Liter	120 Liter	120 Liter
Compressor		1/3HP ,R404A	1/3HP ,R404A	1/2HP,R404A
Dimension	(In)	345 x 450 x 740 (H)mm	450 x 420 x 6300 (H)mm	485 x485 x510(H)mm
	(Out)	600 x 560 x 740 (H)mm	675 x 560 x 1065 (H)mm	990 x635 x1190 (H)mm
Material	(In)	Stainless Steel	Stainless Steel	Stainless Steel
	(Out)	Stainless Steel	Stainless Steel	Stainless Steel With Powder Coating
Weight		61 kg	83 kg	125 kg
Power		220 V,800,60Hz	220 V,800,60Hz	220 V,1.3KW,60Hz
Ice Type		Flake Type Ice		
Door		Front PC Door		
Saftey Device		Power Circuit Beaker , , Ice Level Sensor, Water Level Sensor		
Accessory		Drain & supply Gose , , Scoop		



ESL-625FS



ESL-625F



ESL-625



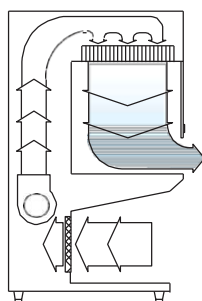


### Laminar Flow Clean Bench

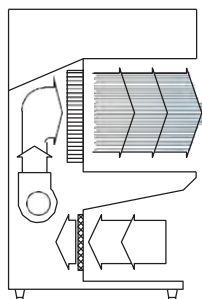
ESL-700LV

#### Features

- Micro Processor Control
- Easy Controlling Verifying Operation
- High Efficiency filter minor vibration ,low noise design
- Removable Working Table For Easy Cleaning
- Inflow pre filter installed for extending life of Hepa filter Meet bio safety level 1.2.3



Vertical air flow



Horizontal air flow

#### Model

ESL-700 LVN

type	Vertical air flow type	
Main Control	Microprocessor Control with Touch pad	
Purity	Lower Than Class 100	
Main Filter	HEPA Filter (99.99% efficient at 0.3micron particles)	
Pre Filter	Nylon material	
Dimension	(In)	1200 x 620 x 7 710
(WXDXH) (mm)	(Out)	1320 X 790 X 1920
Material	(In)	Stainless Steel
	(Out)	Steel plate with Powder Coating
Illumination	30W.F.L X 2EA	
UV Lamp	30W.U.V x 2EA	
Door	Sliding Glass Door	
Power	220V, 3A, 60HZ	







## Bio Hazard Safety Cabinet

ESL-801SC - ESL-802SC

ESL-803SC - ESL-804SC

### Features

- Micro Processor Control
- Easy Controlling Verifying Operation
- High Efficiency filter minor vibration ,low noise design
- Removable Working Table For Easy Cleaning
- Inflow pre filter installed for extending life of Hepa filter Meet bio safety level 1.2.3



Suction Pump

Option

Model		EESL-801SC	ESL-802SC	ESL-803SC	ESL-804SC
Dimension (In)		960 X 580 X 670	1160 X 580 X 670	1460 x 580 x 670	1660 x 580 x 670
(WXDXH) (mm)	(Out)	1100 X 770 X 2310	1300 x 770 x 2130	1600 x 770 x 2310	1800 x 770 x 2310
type		Bio Hazard Safety Type, Glass II Type			
Main Control		Microprocessor Control with Touch pad			
Winding Velocity		0.3 - 0.5m/sec			
Purity		Lower Than Class 100			
Main Filter		HEPA Filter /0.3 micron 99.99% efficiency			
Pre Filter		Nylon material/ Internal moulded			
Working Table		Easy removable plate			
Material	(In)	Working table Stainless Steel SUS 304			
	(Out)	Cabinet Steel plate with Powder Coating			
Illumination		40w fluorescent lamp X 2EA			
UV Lamp		40W X 1EA			
UV Timer		15,30,60 min or Hold			
Utility		Air Cock, Gas Cock, Electric Outlets			
Door		Sliding Glass Door, Tempered Safety Glass			
Safety System		Door Limit Alarm			
Power		220V, 2.2A, 60HZ			



# FURNITURE



EduScience UK<sup>®</sup>



[www.eduscienceuk.com](http://www.eduscienceuk.com)

**We Contribute  
To Future Education**

# FURNITURE

- laboratory Fittings
- Charging Trolleys
- Classroom Furnitures



**Call Us Today +44 (0)203 8685740**



### Science Cart

This mobile system will transform any room into a science lab. The cart is fitted with sets of trays for laboratory experiment equipment and easily movable from room to room.

The EduCart is a flat packed, cost-effective mobile teaching complex and convenient storage system, which provides an integrated approach to teaching natural sciences with the use of modern technology.

The EduCart frame is made out of sturdy, acid resistant steel with doors that are fire and scratch resistant. One of the side has a heavy duty handle for easy manoeuvring and, with the help of our high quality wheels, the cart can be easily pushed over uneven ground.

The autonomous water system consists of an acid resistant polypropylene sink with a stainless steel faucet. The water flow can be easily controlled with a button that is connected to the built-in electric pump.

**Size of the cart assembled :** L1509 x W690 x H1073mm.

**ESA62322**

### Mobile Science Bench

The Mobile Science Bench (MSB) has been designed by science teachers for Secondary and Tertiary school science teaching and learning. It is a self-contained mobile science laboratory enabling the teaching of science in any classroom within your school or institution. The MSB provides an ideal flexible laboratory facility for wheel in Lectures and demonstrations and as a temporary laboratory facility when schools are undergoing redevelopment and change. The bench is designed for Secondary students providing the correct working height and the width allows easy access through standard doorways.



#### Features:

Laboratory grade working surface: Trespa Athlon, Pull out surfaces for extra working space, Grattells trays provide ample storage space for equipment, Lockable doors for safety, Push/pull handles for easy manoeuvrability, Lockable castors for stability, Mains plug with minimum 4 socket outlet, Double gas tap tubing for bottled gas\*, Running water via clean waste water tanks. Powerful water pump and waste disposal system, Screw in sockets for standard retort stands, Computer monitor arm, Lockable computer storage

#### Supplied with:

12 x Blue Shallow Grattell trays (6 on each side), 1 x Small drip cup sink, 1 x 2 way gas tap with fixed tubing, 1 x Swan neck water tap 5 x lockable doors with keys, Tubing connected to gas tap (no gas regulator supplied), Computer screen monitor arm, 2 x Screw in retort stand sockets, 2 x water containers (1 x waste-Black, 1 x fresh-Clear), 1 x smooth constant flow fully sealed IP65 rated water pump, Self-Priming pump up To 3m (10ft), Suitable For 15mm Quick Connect Plumbing, Run dry protection Strainer to protect from debris, 1 x Irwin Powerswitch PSU, 1 x Input Supply voltage 230V dc Supply frequency 50Hz, Mains fuse Rear panel 2A, 20mm quick blow Mains plug 3A, Output Voltage 2, 4, 6, 8, 10, 12V ac nominal 1, 3, 5, 7, 9, 11V full wave rectified DC nominal, Maximum output current 5A AC or DC Please note: The bench is not supplied with either a gas regulator or gas bottle. A suitable and sufficient COSHH (Control of Substances Hazardous to Health Regulations) and DSEAR (Dangerous Substances and Explosive Atmospheres Regulations) risk assessment must be performed for gas and gas equipment by the school.

**Size :** 1250 (Height) x 1530 (Width) x 700 (Depth)

\* Gas bottle requirements are Butane gas in either 3.5kg or 4.5kg sizes.

**ESA62324**





### Primary Science Bench

A fully functional, mobile science laboratory designed specifically for Primary Schools.

All benches are supplied with mains power, lockable castors and both cupboards contain Gratnells trays. Complete Primary Science Bench supplied fully assembled with all the below options. Options can be modified to suit your teaching environment. Please call us to discuss further.

Laboratory grade working surface - 16mm Trespa, Pull out surfaces for extra working area, Plenty of storage space, Gratnells trays for storage of science equipment, Lockable wheels, Lockable cupboard doors, Butane Gas (optional), Running water with clean and waste tanks, Monitor arm (optional)

Length : 1400mm

Depth : 700mm Height: 845mm .

Weight : 210Kgs approximately

Please note: The bench is not supplied with either a gas regulator or gas bottle. A suitable and sufficient COSHH (Control of Substances Hazardous to Health Regulations) and DSEAR (Dangerous Substances and Explosive Atmospheres Regulations) risk assessment must be performed for gas and gas equipment by the school.

**Dimensions :** 1200 (Height) x 1400 (Width) x 700 (Depth)

**Weight :** 205kg,

\* Gas bottle requirements are Butane gas in either 3.5kg or 4.5kg sizes.

ESA62325



### Mobile Food Technology Bench

Versatile mobile Food Technology Bench which allows the teaching of Food Technology to be performed in an ordinary classroom. The unit comes complete with running water, clean and waste water tanks, a full sized cooker/grill, a twin hob induction cooker, a silicone pastry mat and rolling pin, 5 standard Gratnells trays and additional storage. Requires 2 x Mains outlet ? 1 for the cooker/water and 1 for the induction hob.

The unit is sized to easily fit through standard doorways and is fitted with wheels (two lockable) for ease of use.

#### Key features:

Food Grade working surface 16mm Trespa Athlon

Full size electric cooker with grill

Twin induction hob and large silicone pastry mat in locked storage cupboard

Running water with clean and waste tanks

Gratnells trays for storage of utensils and cooking equipment

Lockable cupboard doors

Easy push with lockable wheels for stability

Only requires 2 x 13A socket for power

#### Dimensions :

Length : 1424 mm

Depth : 700mm

Height : 950 mm

ESA62327



## Fume Cupboard Mobile Eduscience 1000Rs

Mobile Fume Cupboard

Product Description

The unit gives good flexibility and can be manoeuvred to different locations. An RS CMS schools filter is used to absorb the fumes generated during practical work. A pre filter is fitted to protect the filter and the filter and fan are housed in the base of the unit. A counterweighted front sash and clear laminated safety glass sides and rear provide 360° visibility ideal for demonstrations. The unit comes complete with an integral storage cupboard and fan failure monitoring system. The optional services are remote gas, electrical socket, and remote water service including drip cup, bottle trap and a 2m flexible drain hose.

Complies to building bulletin 88 from the Department of Education and Employment

Tested by CLEAPSS

Designed to comply to BS 7989:2001

Benefits:

Variable air volume (two speed)

Fully mobile

360° visibility

No ducting required

Sliding front sash

Fan failure monitoring

Restraining stainless steel tether

Integral storage cupboard

Specifications:

Average inflow: 0.4m/s

Minimum working aperture: 200mm high

Maximum working aperture: 365mm high

Voltage : 230V

Filter type: RS CMS schools filter, a blended filter to meet the national curriculum needs for teaching science

Please note that the appearance of the product may differ from the models shown. If in doubt please contact customer services.

**Size :** 1000 x 700 x 1850mm (w x d x h)

Internal **Dimensions :** 840 x 500 x 865mm (w x d x h)

Minimum working aperture : 200mm high

Maximum working aperture : 365mm high

Voltage : 230V 50Hz 1ph



ESA62329



## Fume Cupboard Static Filtration

Static Filtration Fume Cupboard

Product Description

**Features & Benefits:**

it is ideally suited for the use in the classroom or prep-room, 22kg CMS carbon filter, Filtrate pre-filter, Polypropylene worktop and vulcathene dricup, Low airflow alarm, No ducting required, Sliding front sash, Standard services including: gas and water, Single electric socket, Plain stand, Light, Energy efficient

**Specifications**

External size: 1000 x 760 x 2200mm (WxDxH)

Internal size: 950 x 550 x 780mm (WxDxH)

Minimum working aperture: 200mm high

Maximum working aperture: 365mm high

Average airflow: 0.4M/s (alters with sash position)

Voltage: 230V 50Hz 1ph

Filter: CMS schools filter blended to meet the national curriculum needs for teaching science

ESA62334

### Fume Cabinet Ductless

EDU Chemcap ductless fume cabinet, for bench mounting. Pre-filter and Chemcap filters (x2), MP type.

Sound Level: <50dBA, Face Velocity: >0.3m/s, Power: 96W, Air Changes: 0.59 m3

#### Features

Quiet operation >50dBA.

Anemometer airflow indicator.

All round visibility of cabinet interior.

Edu Chemcap exceeds the requirements of important international standards for use of re-circulatory filtration cabinets in schools and colleges:

Design Note 29 and Building Bulletin 88 Ideal for teaching practical chemistry

ES EDU Chemcap fume cabinet (ductless, re-circulatory filtration) is ideal for use in education, providing staff and students with a flexible system that allows excellent all round vision and ensures safety is maintained.

The use of Chemcap Carbon filtration (type MP) makes it ideal for a mixed use laboratory and removes a very wide variety of fumes and vapours.

Cabinets have trapezium shaped front access and double hinged front doors which open fully to allow access to the cabinet interior for loading, setting up an experiment and for cleaning. The base tray is black which is excellent for highlighting spillages. Two services ports with covers are provided in the rear panel.

Cabinet can be placed onto an existing work surface or supplied with its own mobile bench (optional cupboard doors and services kit).

The mobile bench enables the cabinet to be fully mobile, large castors (lockable) facilitate easy movement of the cabinet from room to room over



rough floors and door sills.

The secure docking hub is an optional extra which is a wall mounted lockable cabinet providing security and protection for utility connections.

Filtration technology ES is a leader in carbon filtration technology: High performance laboratory grade carbon filter media is impregnated with additives to ensure the best possible retention capacity and filtration performance.

Chemcap Enviro Filters: was one of the first companies to replace potentially toxic and carcinogenic inorganic additives with environmentally friendly and biodegradable compounds, whilst achieving excellent retention capacities that are amongst the best in the world.

Filtration used In EDU Cabinets Pre-filtration; eliminates particles at 5.0micron or larger to an efficiency of 92% as defined in BS EN ISO 779.

Carbon Filtration eliminates toxic species and compounds within the recommended occupational exposure limit for pollutant gases having molecular weight equal to or greater than 30.

Efficiency 99.9%.

Optional: HEPA filtration (H14 Standard) eliminates particles 0.3 microns or larger to an efficiency of 99.995%.

Optional extras

Secure Docking Hub. Security and protection for your students and staff - enables your cabinet to be moved around safely.

Wall-mounted secure utility connections cabinet.

Lockable, accessed by authorised users only.

Customizable access plate in base.

Connections secure at all times, in use or not.

Mobile Bench. Make your portable EDU Chemcap fume cabinet fully mobile with the addition of a robust epoxy coated pressed steel open stand (Part No. AT0013/01) or cupboard (Part No. AT0013/02). Large lockable castors assist when moving over rough floors and door sills. Double electrical socket included, mounted to the rear of the bench.

Mobile bench Option Services Kit Option. Gas tap and swan neck water tap with drip cup. Connectors and hoses (1.5m) are included.

**ESA62331** Dimensions (mm) WxDxH: 1020x750x1130

**ESA62332** Dimensions (mm) WxDxH: 1020x750x1950

**ESA62333** Dimensions (mm) WxDxH: 1020x750x1950







### Safety Cabinet Acid And Alkali Floor

Use of caustic materials present many hazards, particularly if acids and alkalis are stored incorrectly or with other chemicals. These storage cabinets enable secure and identifiable storage in the workplace.

Welded all steel structure for extra strength Seven lever safe lock for high security Full length heavy duty hinges with concealed fixings to prevent forced entry New regulation labels enclosed to be fitted by customer to suit regulations Powder coated with Germ Guard Active Technology anti-bacterial paint. Made from 1.5mm steel Integral liquid-tight sump encourages the correct handling of spills through the use of absorbent Reaction to Fire Classification EN 13501-1

<b>ESA62335</b>	W 900 x d 460 x h 700mm	Number of shelves - 1, Number of doors - 2, <b>Dimensions</b> : 2
<b>ESA62336</b>	W 1200 x d 460 x h 1800mm	Number of shelves - 3, Number of doors - 2, <b>Dimensions</b> : 2
<b>ESA62337</b>	W 350 x d 300 x h 700mm	Number of shelves - 1, Number of doors - 1, <b>Dimensions</b> : 1
<b>ESA62338</b>	W 460 x d 460 x h 900mm	Number of shelves - 3, Number of doors - 1, <b>Dimensions</b> : 2
<b>ESA62339</b>	W 900 x d 460 x h 1800mm	Number of shelves - 3, Number of doors - 2, <b>Dimensions</b> : 2
<b>ESA62340</b>	W 900 x d 460 x h 900mm	Number of shelves - 2, Number of doors - 2, <b>Dimensions</b> : 1





### Safety Cabinet Hazardous, Floor

Hazardous Floor Cupboards enables the separate storage and transportation of hazardous substances as demanded by the COSHH regulations. Fire tested and certified EN13501-1 'No snag' handles Adjustable spill-retaining galvanised shelves for superior spill management Integral liquid-tight sump encourages the correct handling of spills through the use of absorbent Welded integrated sump, angled lid to discourage article placement and a hasp and staple lock (padlock not supplied)

<b>ESA62341</b>	W 1200 x d 460 x h 1800mm	Number of shelves - 3, Number of doors - 2, <b>Dimensions</b> : 2
<b>ESA62342</b>	W 350 x d 300 x h 700 mm	Number of shelves - 1, Number of doors - 1, <b>Dimensions</b> : 1
<b>ESA62343</b>	W 900 x d 460 x h 1200 mm	Number of shelves - 2, Number of doors - 2, <b>Dimensions</b> : 2
<b>ESA62344</b>	W 900 x d 460 x h 1800 mm	Number of shelves - 3, Number of doors - 2, <b>Dimensions</b> : 2
<b>ESA62345</b>	W 900 x d 460 x h 700 mm	Number of shelves - 1, Number of doors - 2, <b>Dimensions</b> : 2
<b>ESA62346</b>	W 900 x d 460 x h 900 mm	Number of shelves - 1, Number of doors - 2, <b>Dimensions</b> : 2

### Safety Cabinet Radioactive Storage

Radioactive Storage Cupboard

Product Description

This is a stoutly built enamelled sheet-steel cupboard having a louvred, lockable door bearing a standard international red and yellow warning plate. Two keys are provided for the lock. The rear wall of the cupboard carries two narrow steel shelves which ensure that any containers placed on them are at the maximum possible distance from the door.

The dimensions of the cupboard are such that assuming a maximum stock of 30 ° Ci in the form of Co60 is kept on the shelf, the dose rate at the surface of the door would be less than 0.5 mR/hr. A rectangular plastic tray is provided to contain any spillages.

The cupboard is provided with small fixing holes so that it may be screwed to a wall. It is recommended that it is sited away from normally occupied areas and that its back is against or attached to a wall.

**Dimensions** : 380 x 380 x 380mm.

Tray: 310 x 240 x 20mm deep.

**ESA62347**



### Safety Cabinet Drugs and Poisons

Drugs And Poisons Cabinet

Product Description

Lockable cabinet for the secure storage of scheduled drugs and poisons. Designed for wall mounting through special reinforced panels incorporated in the back.

Features include sealed hinges and three adjustable shelves. Door hinges to the right.

**Dimensions** : W458 x H610 x D152mm.

**ESA62348**





### Trolley With Gratnells Tray

The Gratnells storage system is unique and designed for the organisation of all types of school equipment and the enormous range of science materials and equipment that need storing. Manufactured from square steel tubes with slots at 25mm intervals to take trays. The trolleys have 80mm castors and are ideal when transporting equipment around the room. Metal runners are required and sold separately but are adjustable and can accommodate our range of super-tough trays. Supplied flat packed for self assembly. Please note: Trays and runners are sold separately.

<b>ESA62349</b>	Double column tall frame	Size W710 x D420 x H1850mm. This product holds up to 34 shallow trays.
<b>ESA62350</b>	Double column - h725mm	Size: W710 x D420mm. This product holds up to 12 Shallow trays and comes with heavy duty castors.
<b>ESA62351</b>	Double column - h850mm	Size: W710 x D420mm. This product holds up to 12 Shallow trays and comes with heavy duty castors.
<b>ESA62352</b>	Single column - h725mm	Size: W370 x D420mm. This Products hold up to 6 shallow trays and come with heavy duty castors.
<b>ESA62353</b>	Single column - h850mm	Size: W370 x D420mm. This product holds up to 6 Shallow trays and comes with heavy duty castors.
<b>ESA62354</b>	Treble column tall frame - 1850mm	Size: W1055 x D420mm in 2 heights with adjustable feet with flat metal top.
<b>ESA62355</b>	Treble column - h725mm	Size: W1055 x D420mm. This product holds up to 18 Shallow trays and comes with heavy duty castors.
<b>ESA62356</b>	Treble column - h850mm	Size: W1055 x D420mm in 2 heights with recessed top.



### Lab Trolley Three Tier Apparatus

Three Tier Apparatus Trolley

Fully welded, tubular end frame construction in stainless steel. Shelf heights 210mm, 520mm and 820mm from floor level.

The shelves are fixed (i.e. not removable) for added stability and are supplied lipped edges up, (lipped edges down are available on request). Maximum weight limit is 200kg uniform distributed load.

Size: L1060 x W460 x H900mm.

ESA62358



### Ribbed Rubber Mat

Ribbed Rubber Mat, Rubber mat to fit the three and two tier apparatus trolleys.

3mm thick

Size: 1000 x 460mm.

ESA62362

### Lab Wall Bench

Lab wall bench different sizes are available according to your lab room size.

ESA62386



### Lab Student Bench Octagonal Shape With Tap & Sink

Lab student bench octagonal shape with tap & sink

ESA62378

### Lab Student Bench Octagonal Shape

Lab student bench octagonal shape

ESA62379



### Lab Teacher Bench

Lab teacher bench

ESA62373





## Computer Teacher Table

Size: 1600x750x900mm (LxDxH)

Table top from 24mm thick melamine laminated MDF with 2mm thick PVC edging on all sides

Front panel 220mm high from 24mm thick melamine laminated MDF with 2mm thick PVC edging on all sides

Frame from 50x20x2mm thick epoxy powder coated mild steel oval tube with end cap

Front connecting frame from 40x20x1.5mm thick epoxy powder coated mild steel tube

1 no. CPU Holder from 25x2mm thick epoxy powder coated mild steel flat bar

1 no. 13Amp/220Volts Double electric outlet

1 no. Data network outlet

1 no. Cable cover 80mm dia

ESA62397



## Computer Student Table

Size: 900x750x750mm (LxDxH)

Table top from 24mm thick melamine laminated MDF with 2mm thick PVC edging on all sides

Front panel 220mm high from 24mm thick melamine laminated MDF with 2mm thick PVC edging on all sides

Frame from 50x20x2mm thick epoxy powder coated mild steel oval tube with end cap

Front connecting frame from 40x20x1.5mm thick epoxy powder coated mild steel tube

1 no. CPU Holder from 25x2mm thick epoxy powder coated mild steel flat bar

1 no. 13Amp/220Volts Double electric outlet

1 no. Data network outlet

1 no. Cable cover 80mm dia

ESA62401



## Lab Stool Stacking PP

Flat top stool has a simple stacking design and is extremely durable giving many years of service in most testing environments.

Frames feature high-quality steel and leatherite paint finish for the ultimate durability.

Shells are flame retardant as standard making them suitable for usage in all environments including labs.

ESA62366



## Lab Stools Standard ES 1

stool seating top made of extremely robust and resistant: scratch and wear resistant, impact and break resistant, stain and abrasion resistant, lightfast, resistant to chemicals, flame retardant and self-extinguishing.

The safety gas spring with easy-to-operate hand release sits on a robust 5-star aluminum base, which is available epoxy-coated in many attractive colors as standard or optionally in polished aluminum..

ESA62367



**Mini Tablet Charging Trolley - 10-Bay or 12-Bay**

ESA62415

**Description**

This Tablet charging cabinet is customized to secure, protect and charge the IT devices , including Mobile phone , kindle , tablet PC in school , hospital , government department , training places , etc

Above sample creates capacity for total 10~12 units loading , with 340mm height space for charging 1 x 10 or 1 x 12

34mm gap between each slot , ensure to fit IT device up to 15.6"

100 kgs Max. loading

**Key Features****Efficiency**

Embedded handle at front side for operation

Special-made shelf comes with cable management function Wall Mounting installation

**Security**

Handle key locking system for front metal doors

**Safety**

USB2.0 ; 19V 2.4A charging safe and quick

The entire cabinet is to be tested and certified to CE,RoHS standard ON/OFF lighted switched at side for quick operation

**Environment**

Cooling/Ventilation: 1 x AC continuous operation fans keep equipment cool Well-

controlled fans keep devices cool ( fans will work automatically when cabinet circuit reaches its setting value)

Safety for children.

**Warranty**

Five (5) years mechanical/workmanship; two (2) years electrical components; one (1) year cables

**=Ships fully assembled=**



Furniture

specifications	24-way
Country-specific power cord	1.5m long
Power System: input/output	220-250V~ MAX AC input
Temperature Range	operating 0° to 30°C (32° to 86°F)
storage	-40°C to 60°C (-40° to 140°F)
Parameter	Product Dimensions: 510X370x345MM(W*D*H)



Application	Laptop/Mobile IT devices/Ethernet switch/Tablet					
Interface	Country-specific standard					
Charging NO.	10-way	11-way	12-way	13-way	More	OEM
USB port	19V 2.4A -	USB-C				
Input	110V,220V,240V					
Output	110V,220Vor 19V/ SV. 2.4A					
Outlet type	UK BS1363	Germany DIN49441	French DIN49441	Australia AS/NZS311 2	IEC C13/C14 C19/C20	Other GB1002 BS546...



Standard configuration	1. Embedded handle 2. Handle lock 3. LED indicator 4. Operating handle 5. Cam-key lock 6. Earthing cable 7. Power module - USB					
	1. Lights decoration 2. Time controller 3. Glass door 4. Master Device shelf 5. Other idea					
Optional						

**[Additional design for different environments]**

Different color options

Side/top panel punched with vented area (tropics)



## Sync & Charging Trolley

ESA62416

Webit SY series charging cabinet is designed to simultaneously sync and charge up to 30 mobile devices, including Mobile phone, kindle, tablet, Chromebook.

The reliable, ergonomic structure designed from SPCC cold rolled steel and aluminum alloy frame, upon education application, makes the SY cabinet works safely and protect users from wound.

- The Cart creates capacity for :
- Total 30 units loading, fir devices up to 15.6"
- Maximum charge output of 2.4A per outlet
- Supports USB 2.0 data transfer rates up to 5Gbps
- Syncs any USB device using its compatible software

### Outlet options

No.	Outlet	Power rate	Devices
1	USB-A 2.0	5V 2.1A	Mobile phone , Tablets ,etc
2	USB-A 3.0	19V 3.4A	Mobile phone , Tablets ,etc
3	USB-C	19V 2.4A	Mobile phone , Chromebook

### Key Features

#### Efficiency

- Embedded handle at side without space occupied
- Special-designed shelf comes with cable managem function
- Universal low-noise wheels for easily moving
- Easily synced & charged via cable to USB port
- Power cable withdrawing box built at side of the cabinet

#### Security

- Handle locking system for front accessing control
- Lockable back electrical compartment

#### Safety

- Strong alu-alloy frame body , rounded corner design to av accident wound.
- USB-A or USB-C outlet charging safe and quick (DC MODE)
- The entire cabinet is to be tested and approval by to CE, RoHS,ISO standard
- RCCB to protect from overload / Leakage



#### Environment

Well-designed ventilation and AC fans optional  
Thermostat controlled fans will work automatical necessary)  
IP-20 rated  
Country-specific power cord = 1.5m long  
Power System: input/output = 110-250V~ MAX AC input



#### Warranty

Five (5) years mechanical/workmanship; two (2) electrical components; one (1) year cables  
Ships fully assembled=



specifications	10-way	20-way	30-way	Customized
Exterior Size	515x530x595 mm	515x530x865 mm	515x530x1135 mm	- mm
Exterior Size	20.2x20.8x23.4 in	20.2x20.8x34.0 in	20.2x20.8x44.7 in	- in
Weight	31kg	48kg	65kg	- kg
Weight	68 lbs	105 lbs	143lbs	- lbs
Remarks	* Above of DC series model , plz contact sales for AC model			
SKU #	ESA62416/10	ESA62416/20	ESA62416/30	ESA62416SP

Specifications are subject to change without notice

Note that the cart operating temperature range does not all apply to IT devices



### Cabinet specifications

Materials	SPCC cold rolled steel, Aluminum-alloy, PVC
Color	RAL7630 Beige ; RAL5012 Light blue; RAL9005 Black
Input power	Country specific (110V , 220V )
Output power	As per model require
Operating	Interior RCCB protector ; Side sync charging port; On/Off switch
Locking	Front and back handle lock

### Divider specifications

Materials	Anti-flame plastic
Mounting Pattern	Inset
Applications	Laptop / Mobile IT devices / Ethernet switch / Tablet / Kindle
Max.	15.6 "

### Electrical

Max. port	40-way , or contact sales for customization
AC Voltage	220vAC or 110vAC
Frequency	45-66 Hz
Max. Current	10-16A as per country specific
DC Voltage	5V ; 12V , 19V optional
Current	2.1A ; 2.4A, 3.4A optional

### Monitoring , Control

Connecting	-
	-
	-
Visible	-
	-
ON/OFF	-
Timer setting	-
Theme	-

### Others

Operating Temp	0° to 30°C (32° to 86°F);
Storage Temp	-40°C to 60°C (-40° to 140°F)

### Optional kits

UV-ray light	Disinfection application, Auto on/off
Code lock	Combination lock
AC output -1	Exterior AC output socket
AC output -2	Group AC output at back of the trolley
LED screen	Digital LED screen to show inner environment



### Fit devices of

#### LAPTOP

Fit Max. up to 15.6"  
Support 45W, 65W  
USB-A 2.0 female outlet communication  
USB-C female outlet ( PD2.0 , PD3.0 support )



#### TABLETS

Fit Max. up to 14.1"  
Support 10W (5V, 2.1A) outlet ,  
45W, 65W USB-A 2.0 female  
outlet communication  
USB-C female outlet ( PD2.0 , PD3.0 support )



#### MOBILES

Fit most of well-known brands mobile phones Support 10W (5V, 2.1A) outlet , 45W, 65W USB-A 2.0 female outlet communication  
USB-C female outlet ( PD2.0 , PD3.0 support )





## AC power Charging Cabinet

laptop/tablet charging cabinet is customized design to secure, protect and charge the electrical devices;

Including pad, phone, Laptop in school,hospital,government department, Training places etc;

- Safe charging for maximum 15.6" devices
- Easy cable management
- Compact footprint structure
- Removable and spacious slot
- Security locker
- 2 cooling fans included
- 5-year mechanical & 2-year electrical warranty
- Online service and replaced Interchangeable charging parts
- Optional smart charging solution

### WB-CC-D-30 charging cart creates capacity for you :

#### Build for 30 devices

Charge 30 units of Chromebook , laptop or tablets  
- up to a 15.6" screen



#### Cleverly designed dividers

Customized dividers make placing and pull devices  
simple flexible add/remove upon charging device size



#### Headache-free cabling system

Experience simple device management with less  
slip cutting edge cable technology from slipping  
out



#### Smooth and seamless charging

Optional CC-D cycle charging  
Determine the best charging way without program  
Devices are efficiently charged and protect from  
overload



#### Perfectly compact structure

Small footprint save room space  
Provide easy storage for any classroom size  
Make-to-order design available if at user necessary



#### Efficiency

- Swiveling wheels(Rubber) included for moving.
- Cable management shelf provides well-organized charging appearance and -convenient operation.
- LED lamp ( optional )
- Cable entry at side.



#### Security

- Handle lock, for both front and rear side.
- Ensure security for users.

#### Safety

- Well-designed ventilation and continuous controlled fans keep devices cool
- passivated treatment corner to avoid accident wounding
- For user and equipment safety





=Ships fully assembled=

Device size	Bearing	Capacity	AC output	Work temp	VESA
Up to 15.6" tablet	300kg	Up to 30	110-220Vac	-15°C-65°C	-

**Environment**

Cooling/Ventilation: 4 AC continuous operation fans keep equipment cool [Fan location can be adjustable.]

Country-specific power cord = 2m length

Power System: input/output = 110V~220V, 50/60 Hz or customized as different countries

IP degree : IP-20

**Parameter**

Product Dimensions: 610X610X1048MM(W\*D\*H), height including castor

Warranty: Five (5) years mechanical/workmanship; two (2) years electrical components; one (1) year cables

Device Capacity	30	Slot Size	25W*250H*155D mm
Support device	Pad/Chromebook/Ethernet switch/Mobile devices up to 15.6"	Charging type	Basic charging
LED lamp	3 units , each layer	External outlet	0
Divider type	Plastic divider with cabling system	Sliding shelves	Yes
Cart Dimension	610W*610D*1048H mm	Packing Dimension	650W*640D*1070H mm
Net Weight	61KG (134lbs)	Gross Weight	81KG (178lbs)
Power Spec	AC IN 100-120V ~ 50/60Hz , 15A 200-250V ~ 50/60Hz , 10A-16A	Cable management	Plastic divider at front Metal hook at back
Security	Front door : 3-point mechanism Back door : 3-point mechanism	Castor	4" castor x 4, 2with brake
Security hook	Yes	Fan	2 of 12038
Handle	Yes	Color	White/Black





## Tablet Charging Trolley

ESA62417

This O2 series charging cabinet is customized to secure, protect and charge the IT devices, including Mobile phone, kindle, tablet, PC in school, hospital, government department, training places, etc; Up to 300W DC load via house-hold power system. The reliable, ergonomic structure designed from SPCC cold rolled steel, upon education application makes the O2 cabinet works safely and protect users from wound.

### Above sample creates capacity for

- Total 10/20/30 units loading, with 250mm height space for each level
- 1/2/3 x 10
- 25mm gap between each slot, ensure to fit IT device up to 14.1"
- 300 kgs Max. loading

### Outlet options

No.	Outlet	Power rate	Devices
1	USB-A 2.0	5V 2.1A	Mobile phone, Tablets, etc
2	USB-A 3.0	5V 3.4A	Mobile phone, Tablets, etc
3	USB TYPE-C	19V 2.4A	Round pin laptops, Chromebook
4	USB TYPE-C	19V 3.4A	Latest laptops, Chromebook

## Key Features

### Efficiency

- Embedded handle at side without space usage
- Special-designed shelf comes with cable management function
- Universal low-noise wheels for easily moving
- Remotely monitor & control via WIFI signal
- Power cable withdrawing box built at side of the cabinet

### Security

- Handle locking system for front accessing control
- Lockable side electrical compartment

### Safety

- Strong and full SPCC steel body, rounded corner design to avoid accident wound.
- USB2.0 female connect 2.1A charging safe and quick
- The entire cabinet is to be tested and approval by CE, RoHS, ISO standard
- RCCB to protect from overload / Leakage



### Environment

- Well-designed ventilation and continuous controlled AC fans keep devices cool
- Thermostat controlled fans will work automatically when cabinet circuit reaches its setting value)
- IP-20 rated
- Country-specific power cord = 1.5m long
- Power System: input/output = 220-250V~ MAX AC input



### Warranty

- Five (5) years mechanical/workmanship;
- two (2) years electrical components; one (1) year cables

=Ships fully assemble=



specifications	20-way	24-way	30-way	36-way
Exterior Size	530x500x850 mm	600x500x850 mm	530x500x1163 mm	600x500x1163 mm
Exterior Size	20.9 x 19.7x33.5 in	23.6x17.7x33.5 in	21.6x19.7x45.8 in	23.6x19.7x45.8 in
Weight	47kg	51kg	69kg	76kg
Weight	103.6 lbs	112.4 lbs	152.1 lbs	167.5 lbs
Remarks	* Above of USB-A series model, plz contact sales for USB-C model			
SKU #	ESA62417/20	ESA62417/20	ESA62417/30	ESA62417/36

Specifications are subject to change without notice

Note that the cart operating temperature range does not all apply to IT devices



## Cabinet specifications

Materials	SPCC cold rolled steel, Tempered glass
Color	RAL7630 Beige ; RAL5012 Light blue
Input power	Country specific (110V , 220V )
Output power	As per model require
Operating	Front on/off switch ; Interior RCCB protector ; Mobile APP control
Locking	Front handle lock , side cam key lock

## Divider specifications

Materials	Anti-flame ABS
Mounting Pattern	Inset
Applications	Laptop / Mobile IT devices / Ethernet switch / Tablet / Kindle
Max.	14.1 "

## Electrical

Max. port	48-way , or contact sales for customization
AC Voltage	220vAC or 110vAC
Frequency	45-66 Hz
Max. Current	10-16A as per country specific
DC Voltage	5V ; 19V optional
Current	2.1A ; 3.4A optional

## Monitoring , Control

Connecting	Via Mobile phone APP monitoring
	Current total consumption
	Current charging No.s
Visible	X-cart inner environment
	Each Port details ( Volt , consumption , Protocol , etc.. )
ON/OFF	Remotely switch on each layer
Timer setting	Weekly pattern timer setting on charging period frame
Theme	3 colored theme interface options

## Others

Operating Temp	0° to 30°C (32° to 86°F);
Storage Temp	-40°C to 60°C (-40° to 140°F)

## Optional kits

UV-ray light	Disinfection application, Auto on/off
Code lock	Combination lock
AC output -1	Exterior AC output socket
AC output -2	Group AC output at back of the trolley
LED screen	Digital LED screen to show inner environment



## Fit devices of

### MOBILES

Fit most of well-known brands mobile phones  
Support 10W (5V, 2.1A) outlet , 45W, 65W  
USB-A 2.0 female outlet communication  
USB-C female outlet  
( PD2.0 , PD3.0 support )



### TABLETS

Fit Max. up to 14.1 "  
Support 10W (5V, 2.1A) outlet , 45W, 65W  
USB-A 2.0 female outlet communication  
USB-C female outlet ( PD2.0 , PD3.0 support )



## Tablet Charging Trolley

ESA62418

This CC-T series charging cabinet is customized to secure, protect and charge the IT devices ,including Mobile phone , kindle , tablet , PC in school , hospital , government department , training places , etc ; Up to 300W DC load via house-hold power system.

2~3 ZONE cycle smart charging mode ensure electronic devices charging safely and fast.

Each Layer monitored by LED indicator.

- Above sample creates capacity for
- Total 10/20/30 units loading , with 250mm height space for each level 1/2/3 x 10
- 34mm gap between each slot , ensure to fit IT device up to 15.6"
- 300 kgs Max. loading

### Outlet options

No.	Outlet	Power rate	Devices
1	USB-A 2.0	5V 2.1A	Mobile phone , Tablets ,etc
2	USB-A 3.0	5V 3.4A	Mobile phone , Tablets ,etc
3	USB TYPE-C	19V 2.4A	Round pin laptops , Chromebook
4	USB TYPE-C	19V 3.4A	Latest laptops , Chromebook



### Key Features

#### Efficiency

- Embedded handle at side without space usage
- Special-designed shelf comes with cable management function
- Universal low-noise wheels for easily moving
- Remotely monitor & control via WIFI signal
- Power cable withdrawing box built at side of the cabinet

#### Security

- Handle locking system for front accessing control
- Lockable side electrical compartment

#### Safety

- Strong and full SPCC steel body , rounded corner design to avoid accident wound.
- USB2.0 female connect 2.1A charging safe and quick
- The entire cabinet is to be tested and approval by to CE, RoHS,ISO standard
- RCCB to protect from overload / Leakage



#### Environment

- Well-designed ventilation and continuous controlled AC fans keep devices cool
- Thermostat controlled fans will work automatically when cabinet circuit reaches its setting value)
- IP-20 rated
- Country-specific power cord = 1.5m long
- Power System: input/output = 220-250V~ MAX AC input



#### Warranty

- Five (5) years mechanical/workmanship;
- two (2) years electrical components; one (1) year cables

=Ships fully assemble=



specifications	20-way	24-way	30-way	36-way
Exterior Size	530x500x850 mm	600x500x850 mm	530x500x1163 mm	600x500x1163 mm
Exterior Size	20.9 x 19.7x33.5 in	23.6x17.7x33.5 in	21.6x19.7x45.8 in	23.6x19.7x45.8 in
Weight	47kg	51kg	69kg	76kg
Weight	103.6 lbs	112.4 lbs	152.1 lbs	167.5 lbs
Remarks	* Above of USB-A series model , plz contact sales for USB-C model			
SKU #	ESA62418 /20	ESA62418 /24	ESA62418 /30	ESA62418SP

Specifications are subject to change without notice

Note that the cart operating temperature range does not all apply to IT devices





**Cabinet specifications**

Materials	SPCC cold rolled steel, Aluminum-alloy
Color	RAL7630 Beige ;                      RAL5012 Light blue
Input power	Country specific (110V , 220V )
Output power	As per model require
Operating	Front on/off switch ; Interior RCCB protector ; Mobile APP control
Locking	Front handle lock , side cam key lock

**Divider specifications**

Materials	Anti-flame ABS
Mounting Pattern	Inset
Applications	Laptop / Mobile IT devices / Ethernet switch / Tablet / Kindle
Max.	15.6 "

**Electrical**

Max. port	40-way , or contact sales for customization
AC Voltage	220vAC                      or                      110vAC
Frequency	45-66 Hz
Max. Current	10-16A as per country specific
DC Voltage	5V ;                      19V optional
Current	2.1A ;                      3.4A optional

**Monitoring , Control**

Connecting	-
	LED indicator
	-
Visible	-
	-
ON/OFF	-
Timer setting	2 or 3 Zone cycle charging , user can set 30/60 mins each phase
Theme	-

**Others**

Operating Temp	0° to 30°C (32° to 86°F);
Storage Temp	-40°C to 60°C (-40° to 140°F)

**Optional kits**

UV-ray light	Disinfection application, Auto on/off
Code lock	Combination lock
AC output -1	Exterior AC output socket
AC output -2	Group AC output at back of the trolley
LED screen	Digital LED screen to show inner environment



## Smart Charging Trolley

ESA62419

This CC-R series charging cabinet is contains DC & AC two models; AC model build-in with Country-Specific 110V/220V power outlet. DC model comes with USB-A or USB-C fast charging. Webit Smart Charging Cart creates a flexible and efficient working station for education field. The reliable , ergonomic structure designed from Aluminum-alloy frame upon education application makes the full cabinet works safely and protect users from wound.

### Above sample creates capacity for

- Total 24/36/48 units loading , with 250mm height space for each level
- 2/3/4 x 12
- 34mm gap between each slot , ensure to fit IT device up to 15.6"
- 400 kgs Max. loading

### Outlet options

No.	Outlet	Power rate	Devices
1	USB-A	5V 2.1A	Mobile phone , Tablets ,etc
2	USB-C	19V 2.4A	Tablets ,Round pin Laptops,etc
3	USB-C	19V 3.4A	Round pin laptops , Chromebook
4	AC 110/220V	Upon Country	All kinds of electronic devices



### Key Features

#### Efficiency

- Embedded handle at side without space usage
- Special-designed shelf comes with cable management function
- Universal low-noise wheels for easily moving
- Smart Charging in 2/3 Circuit cycle, support fast and safe charging.
- Power cable withdrawing box built at side of the cabinet

#### Security

- Handle locking system for front accessing control
- Lockable side electrical compartment

#### Safety

- Strong and assemble SPCC cold rolled steel body , Unpack to use directly.
- Rounded corner design to avoid accident wound.
- The entire cabinet is to be tested and approval by to CE, RoHS,ISO standard , optional UL.
- RCCB to protect from overload / Leakage

#### Environment

- Well-designed ventilation and continuous controlled AC fans keep devices cool
- ( Thermostat controlled fans will work automatically when cabinet circuit reaches its setting value)
- IP-20 rated
- Country-specific power cord = 1.5m long
- Power System: input/output = 220-250V~ MAX AC input

#### Warranty

Five (5) years mechanical/workmanship; two (2) years electrical components; one (1) year cables

=Ships fully assemble=



specifications	24-way	36-way	48-way	Customized
Exterior Size	780x650x850 mm	780x615x1127 mm	780x615x1518 mm	- mm
Exterior Size	30.7x25.6x33.5 in	30.7x25.6x44.37 in	30.7x25.5x59.7 in	- in
Weight	70kg	85kg	101kg	- kg
Weight	154 lbs	187 lbs	222 lbs	- lbs
Remarks	* Above of USB-A series model , plz contact sales for USB-C model			
SKU #	ESA62419 /24	ESA62419 /36	ESA62419 /48	ESA62419

Specifications are subject to change without notice

Note that the cart operating temperature range does not all apply to IT devices



## Cabinet specifications

Materials	Full SPCC cold rolled steel body	
Color	RAL7630 Beige ;	RAL5012 Light blue; RAL9005 Black
Input power	Country specific (110V , 220V )	
Output power	As per model require	
Operating	Front on/off switch ; Interior RCCB protector ; Mobile APP control	
Locking	Front handle lock , side cam key lock	

## Divider specifications

Materials	Anti-flame ABS
Mounting Pattern	Inset
Applications	Chromebook/Laptop / Mobile IT devices / Ethernet switch / Tablet / Kindle
Max.	15.6 "

## Electrical

Max. port	48-way , or contact sales for customization
AC Voltage	220vAC or 110vAC
Frequency	45-66 Hz
Max. Current	10-16A as per country specific
DC Voltage	5V ; 12V , 19V optional
Current	2.1A ; 3.4A optional

## Monitoring , Control

Connecting	-
	-
	-
Visible	-
	-
ON/OFF	-
Timer setting	-
Theme	-

## Others

Operating Temp	0° to 30°C (32° to 86°F);
Storage Temp	-40°C to 60°C (-40° to 140°F)

## Optional kits

UV-ray light	Disinfection application, Auto on/off
Code lock	Combination lock
AC output -1	Exterior AC output socket
AC output -2	Group AC output at back of the trolley
LED screen	Digital LED screen to show inner environment

## Fit devices of

### LAPTOP

Fit Max. up to 15.6"  
Support 45W, 65W  
USB-A 2.0 female outlet communication  
USB-C female outlet ( PD2.0 , PD3.0 support )



### TABLETS

Fit Max. up to 14.1"  
Support 10W (5V, 2.1A) outlet ,  
45W, 65W USB-A 2.0 female  
outlet communication  
USB-C female outlet ( PD2.0 , PD3.0 support )



### MOBILES

Fit most of well-known brands mobile phones Support 10W (5V, 2.1A) outlet , 45W, 65W  
USB-A 2.0 female outlet communication  
USB-C female outlet ( PD2.0 , PD3.0 support )



## Smart Charging Cart WB-CC-H

ESA62420

Webit H series charging cabinet integrated USB-A, USB-C, 110V or 220V AC outlet simultaneously in a 8-device cart room.

It aims to charge network devices like Kindle, Mobile phone, Laptop, tablet, Chromebook, Headset. External light-duty aluminum alloy frame structure works safely and protect users from wound.

### The Cart creates capacity of

- up to 8 x 15.6" devices charging
- USB-A or C compliant
- 110Vac or 220Vac compliant
- Smart Locker system
- build-in LED monitor lighting

### Outlet options

No.	Outlet	Power rate
1	USB-A 2.0	19V 2.4A
2	USB-C	19V 2.4A
3	AC outlet	110V or 220V

### Key Features

#### Efficiency

- 3 outlet in each layer
- Horizontal put-in (rubber mat optional)
- Universal low-noise wheels for easily moving
- LED lighting inside
- Front LED charging light, monitor charging status without door open

#### Security

- Smart locking system for front accessing control
- Lockable back electrical compartment

#### Safety

- Strong alu-alloy frame body, rounded corner design to avoid accident wound.
- USB-A or USB-C outlet charging safe and quick (DC MODEL)
- Build-in earthing system
- The entire cabinet is to be tested and approval by to CE, RoHS, ISO standard
- ON/OFF switch at back to cut off circuit



#### Environment

Well-designed ventilation and AC fans optional (Thermostat controlled fans will work automatically necessary)  
IP-20 rated  
Country-specific power cord = 1.5m long  
Power System: input/output = 110-250V~ MAX AC input



#### Warranty

Five (5) years mechanical/workmanship;  
two (2) years electrical components; one (1) year cables



=Ships fully assemble=



specifications	8-way	10-way	12-way	Customized
Exterior Size	583x450x906 mm	583x450x1085 mm	583x450x1264 mm	- mm
Exterior Size	23x17.7x33.7 in	23x17.7x42.7 in	23x17.7x49.7 in	- in
Weight	26 kg	31 kg	37 kg	- kg
Weight	57 lbs	68 lbs	82 lbs	- lbs
Remarks	* Above of DC series model, plz contact sales for AC model			
SKU #	ESA62420 /8	ESA62420 /10	ESA62420 /12	ESA62420 SP

Specifications are subject to change without notice

Note that the cart operating temperature range does not all apply to IT devices





**Cabinet specifications**

Materials	SPCC cold rolled steel, Aluminum-alloy
Color	RAL7630 Beige ; RAL5012 Light blue; RAL9005 Black
Input power	Country specific (110V , 220V )
Output power	As per model require
Operating	On/Off switch; Smart locking system;
Locking	RFID card , Pass-code

**Divider specifications**

Materials	Metal ( Rubber mat optional )
Mounting Pattern	Welding
Applications	Laptop / Mobile IT devices / Ethernet switch / Tablet / Kindle
Max.	15.6 "

**Electrical**

Max. port	20-way , or contact sales for customization
AC Voltage	220vAC or 110vAC
Frequency	45-66 Hz
Max. Current	10-16A as per country specific
DC Voltage	5V ; 12V , 19V optional
Current	2.1A ; 2.4A, 3.4A optional

**Monitoring , Control**

Connecting	-
	Charging status
	Door status
Visible	-
	-
ON/OFF	✓
Timer setting	optional
Theme	-

**Others**

Operating Temp	0° to 30°C (32° to 86°F);
Storage Temp	-40°C to 60°C (-40° to 140°F)

**Optional kits**

UV-ray light	Disinfection application, Auto on/off
Code lock	Combination lock
Cooling system	AC cooling fan system
Timer	Timer for charging plan
UV lamp	Build-in UV lamp for each layer

**Fit devices of****LAPTOP**

Fit Max. up to 15.6 "  
Support 45W, 65W  
USB-A 2.0 female outlet communication  
USB-C female outlet ( PD2.0 , PD3.0 support )

**TABLETS**

Fit Max. up to 14.1 "  
Support 10W (5V, 2.1A) outlet ,  
45W, 65W USB-A 2.0 female  
outlet communication  
USB-C female outlet ( PD2.0 , PD3.0 support )

**MOBILES**

Fit most of well-known brands mobile phones Support 10W (5V, 2.1A) outlet , 45W, 65W  
USB-A 2.0 female outlet communication  
USB-C female outlet ( PD2.0 , PD3.0 support )





## Flower Table

Table top are made of 18mm thick melamine laminated MDF with PVC Edging on all sides  
Frame are made of 38mm dia x 1.5mm thick mild steel pipe welded to 40x20x1.5mm thick mild steel tube with epoxy powder coating

<b>ESA63601</b>	Size: 1200mm x 530mm height
<b>ESA63602</b>	Size: 1200mm x 590mm height
<b>ESA63603</b>	Size: 1200mm x 640mm height

## Half Arc Table

Table top are made of 18mm thick melamine laminated MDF with PVC Edging on all sides  
Frame are made of 38mm dia x 1.5mm thick mild steel pipe welded to 40x20x1.5mm thick mild steel tube with epoxy powder coating

<b>ESA63606</b>	Size: 1200mm x 600mm x 530mm (LxDxH)
<b>ESA63607</b>	Size: 1200mm x 600mm x 590mm (LxDxH)
<b>ESA63608</b>	Size: 1200mm x 600mm x 640mm (LxDxH)



## Half Round Table

Table top are made of 18mm thick melamine laminated MDF with PVC Edging on all sides  
? Frame are made of 38mm dia x 1.5mm thick mild steel pipe welded to 40x20x1.5mm thick mild steel tube with epoxy powder coating

<b>ESA63610</b>	Size: 1200mm x 600mm x 530mm (LxDxH)
<b>ESA63611</b>	Size: 1200mm x 600mm x 590mm (LxDxH)
<b>ESA63612</b>	Size: 1200mm x 600mm x 640mm (LxDxH)



## Horseshoe Table

Table top are made of 18mm thick melamine laminated MDF with PVC Edging on all sides  
Frame are made of 38mm dia x 1.5mm thick mild steel pipe welded to 40x20x1.5mm thick mild steel tube with epoxy powder coating

<b>ESA63614</b>	Size: 1800mm x 600mm x 530mm (LxDxH)
<b>ESA63615</b>	Size: 1800mm x 600mm x 590mm (LxDxH)
<b>ESA63616</b>	Size: 1800mm x 600mm x 640mm (LxDxH)



## Rectangular Table

Table top are made of 18mm thick melamine laminated MDF with PVC Edging on all sides  
Frame are made of 38mm dia x 1.5mm thick mild steel pipe welded to 40x20x1.5mm thick mild steel tube with epoxy powder coating

<b>ESA63618</b>	Size: 1200mm x 600mm x 530mm (LxDxH)
<b>ESA63619</b>	Size: 1200mm x 600mm x 590mm (LxDxH)
<b>ESA63620</b>	Size: 1200mm x 600mm x 640mm (LxDxH)

**Crescent Table**

Table top are made of 18mm thick melamine laminated MDF with PVC Edging on all sides  
Frame are made of 38mm dia x 1.5mm thick mild steel pipe welded to 40x20x1.5mm thick mild steel tube with epoxy powder coating

<b>ESA63622</b>	Size: 1200mm x 530mm height
<b>ESA63623</b>	Size: 1200mm x 590mm height
<b>ESA63624</b>	Size: 1200mm x 640mm height

**Trapezoid Table**

Table top are made of 18mm thick melamine laminated MDF with PVC Edging on all sides  
Frame are made of 38mm dia x 1.5mm thick mild steel pipe welded to 40x20x1.5mm thick mild steel tube with epoxy powder coating

<b>ESA63626</b>	Size: 1200mm x 600mm x 530mm (lxdxh)
<b>ESA63627</b>	Size: 1200mm x 600mm x 590mm (lxdxh)
<b>ESA63628</b>	Size: 1200mm x 600mm x 640mm (lxdxh)

**Student Table**

Table top are made of 18mm thick melamine laminated MDF with PVC Edging on all sides Top support from epoxy powder coated mild steel angle with wired basket under the top Skid frame from epoxy powder coated mild steel pipe epoxy powder coated with glides end cap

<b>ESA63630</b>	Size: 700mm x 500mm x 710mm (lxdxh)
<b>ESA63631</b>	Size: 700mm x 500mm x 760mm (lxdxh)
<b>ESA63632</b>	Size: 700mm x 500mm x 820mm (lxdxh)

**Student Table Free-form Kg**

Free-form student table low height with melamine laminated MDF top with PVC edging for safety. With metal legs epoxy powder coated , Table top from 19mm thick melamine laminated MDF with 3mm thick PVC edging , Top support from 40x20x1.5mm thick mild steel tube with epoxy powder coating , Legs frame from 38mm dia x 1.5mm thick mild steel pipe epoxy powder coated. **Dimensions** : 1650x1150x520m (LxDxH)

**ESA63635****Teacher Table**

Size: 1300x600x760mm (LxDxH)

Table top from 24mm thick melamine laminated MDF with 2mm thick PVC edging on all sides

Skid frame from epoxy powder coated mild steel pipe epoxy powder coated with glides end cap

Front panel, side panel and shelf from 18mm thick melamine laminated MDF

Built-in drawer from 18mm thick melamine laminated MDF

**ESA63639**



### Laptop Table, Oval Type

Oval shape laptop table at lounge level with MDF laminated finish top with PVC edging with tubular frame with height adjustable feet , Top are made of 19mm thick melamine laminated MDF with PVC edging , Frame from 25x25x2mm thick epoxy powder coated mild steel tube with height adjustable feet.

**Dimensions :** 510x380x660mm (LxDxH)

ESA63643



### Student Art , Science Stool

Adjustable height staff task stool with synthetic seat and back, chrome footing with aluminium star base with castor wheels , Synthetic seat shell, five-base turnstile of polished aluminium pressure casting on castors with soft running surface, height adjustable foot-ring Dia 46 cm of chromed-steel tube , Seat height infinitely adjustable through gas compression spring

**Dimensions :** Adjustable height from 40.5 to 53 cm

ESA63678



### Chair C Frame PP Shell

Steel tube framework, chair stackable, floor gliders with felt glide surfaces exchangeable insert, seat shell with elliptic grip hole, ergonomically shaped, Synthetic seat and back stackable armless with cantilever epoxy powder coated frame

ESA63647	Shell h 31cm	Seat height 31 cm
ESA63652	Shell h 35cm	Seat height 35 cm
ESA63657	Shell h 38cm	Seat height 43 cm
ESA63662	Shell h 43cm	Seat height 46 cm
ESA63667	Shell h 46cm	Seat height 38 cm
ESA63672	Shell h 51cm	Seat height 51 cm



### Open Shelf Cabinet Wooded With 25 Compart.

Storage unit with fixed back panel, top shelf, bottom shelf and middle panel dividers with 25 no. Open compartment with 25 no. Removable plastic tote containers , Cabinet panels and shelves are made of 18mm thick melamine laminated MDF with PVC edging , Cabinet back panel from 6mm thick one side melamine faced MDF.

**Dimensions :** 1875x450x1170mm (LxDxH)

ESA63681



**Open Shelf Cabinet Wooded With 8 Totes ,**

Height 1

Open shelving unit with middle vertical partition with 8 no. Compartments and 8 No. Removable plastic trays. Cabinet panels and shelves are made of 18mm thick melamine laminated MDF with PVC edging, Cabinet back panel from 6mm thick one side melamine faced MDF ,

**Dimensions :** 750x450x915mm (LxDxH)

ESA63682

**Open Shelving Unit, 3 Shelves H 1**

Open shelving unit with 3 adjustable shelves , Cabinet panels and shelves are made of 18mm thick melamine laminated MDF with PVC edging , Cabinet back panel from 6mm thick one side melamine faced MDF , Adjustable shelves by means of shelf pin.

**Dimensions :** 750x450x1220mm (LxDxH)

ESA63684

**Open Shelf Cabinet Wooden With 12 Totes ,**

Height 2

Open shelving unit with middle vertical partition with 12 no. Compartments and 12 No. Removable plastic containers trays. Cabinet panels and shelves are made of 18mm thick melamine laminated MDF with PVC edging , Cabinet back panel from 6mm thick one side melamine faced MDF ,

**Dimensions :** 750x450x1675mm (LxDxH)

ESA63683

**Open Shelving Unit, 5 Shelves H 2**

Open shelving unit with 5 adjustable shelves , Cabinet panels and shelves are made of 18mm thick melamine laminated MDF with PVC edging , . Cabinet back panel from 6mm thick one side melamine faced MDF , Adjustable shelves by means of shelf pin.

**Dimensions :** 750x450x1520mm (LxDxH)

ESA63685





### Open Shelving Metal, Depth 1

Heavy duty metal open shelving with 4 shelves with cross bar support , Vertical frame from 40x40x2mm thick mild steel slotted angle with epoxy powder coating , Adjustable shelves from 1.2mm thick mild steel sheet with epoxy powder coating , Cross bar support from 25x3mm thick mild steel flat bar with epoxy powder coating .

**Dimensions :** 900x460x2135mm (LxDxH)

ESA63686

### Open Shelving Metal, Depth 2

Heavy duty metal open shelving with 4 shelves with cross bar support , Vertical frame from 40x40x2mm thick mild steel slotted angle with epoxy powder coating , Adjustable shelves from 1.2mm thick mild steel sheet with epoxy powder coating , Cross bar support from 25x3mm thick mild steel flat bar with epoxy powder coating .

**Dimensions :** 900x610x2135mm (LxDxH)

ESA63687



### Book Display Unit, 4 Sided With 5 Compartments

Free-standing mobile book display unit with total 20 no. Book display compartments. The display compartments occur on all 4 no. Sides with 5 no levels on each side of the unit , Panels composite are made of 18mm thick melamine laminated MDF with PVC edging on all exposed edges for user safety , With 100mm dia non staining castor .

**Dimensions :** W580mm x D580mm X H 1750mm

ESA63696

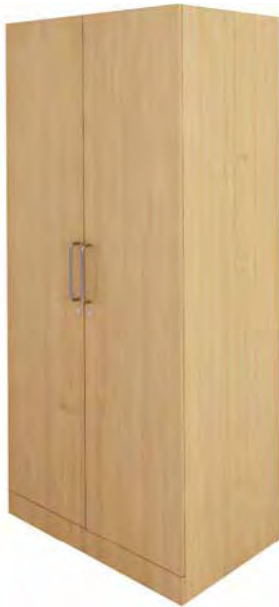


### Book Browser Unit, Mobile, Open Top

Mobile book browser with 4 compartment for storage of books and magazines , Side panels, divider and base from 18mm thick melamine laminated MDF with PVC edging , With 4 no. Compartment for book and magazine storage , With 100mm dia heavy duty castor.

**Dimensions :** 600x600x450mm (LxDxH)

ESA63701



### Storage Cabinet Wooden With Doors 4 Shelves

Lockable cabinet with combination wardrobe. One side unit consists of 4 adjustable shelves and other unit with chrome plated oval tube hanging rod. Both doors are lockable, Cabinet door, panels and shelves are made of 18mm thick melamine laminated MDF with PVC edging, Cabinet back panel from 6mm thick one side melamine faced MDF, Hanging rod from oval tube chrome plated, Adjustable shelves by means of shelf pin.

**Dimensions :** 900x600x2130mm (LxDxH)

ESA63706

### Storage Cabinet Wooden With Doors 5 Shelves

Lockable storage cabinet with hinge door with 5 adjustable shelves, Cabinet door, panels and shelves are made of 18mm thick melamine laminated MDF with PVC edging, Cabinet back panel from 6mm thick one side melamine faced MDF, Doors with square lock and heavy duty tower bolts, Adjustable shelves by means of shelf pin.

**Dimensions :** 900x600x2130mm (LxDxH)

ESA63707



### DVD/CD Display Stand Unit

Double sided stand unit 1 no. Browser shelf component with divided compartments component on each side, Panels and made of 18mm thick melamine laminated MDF with PVC edging for users safety, Browser compartment from epoxy powder coated mild steel sheet with grooved matting rubber, Base with plastic glides.

**Dimensions :** 1200x800x1000mm (LxDxH)

ESA63715



### Book Browser Unit, Mobile, Combination, Shelf, Box And Hanger Road.

Mobile book browser unit with 2 no. Horizontal shelves on each sides. 1 no. Top box compartment and top hanger rod, Browser unit panel are made of 18mm thick melamine laminated MDF with PVC edging, Frame components from mild steel epoxy powder coated, With 100mm dia castor.

**Dimensions :** 900x400x900mm (LxDxH)

ESA63702



### Material Storage Cabinet Wooden

Material storage cabinet with 2 lockable door. With internal divider and with fixed and adjustable shelves. Including plastic tote containers and louver panels to be fixed at the door, Cabinet door, panels and shelves are made of 18mm thick melamine laminated MDF with PVC edging, Back panel from 6mm thick one side melamine faced MDF, Door are lockable and at the back of the door with louver to hang the trays.

**Dimensions :** 1000x750x1830mm (LxDxH)

ESA63711





### Library Search Station LH

Rectangular library table with laminated finish with PVC edging. Leg base from round mild steel, privacy frame and top frame from mild steel tube epoxy powder coated. With fixed type CPU holder, cable cover and wire management , Top from 25mm thick melamine laminated MDF with PVC edging , Privacy panel from 18mm thick melamine laminated MDF with PVC edging , Top support and privacy frame from epoxy powder coated mild steel tube

**Dimensions :** 1500x750x590mm (LxDxH)

ESA63716

### Library Search Station MH

Rectangular library table with laminated finish with PVC edging. Leg base from round mild steel, privacy frame and top frame from mild steel tube epoxy powder coated. With fixed type CPU holder, cable cover and wire management , Top from 25mm thick melamine laminated MDF with PVC edging , Privacy panel from 18mm thick melamine laminated MDF with PVC edging , Top support and privacy frame from epoxy powder coated mild steel tube , Fixed type CPU holder from 18mm thick melamine laminated MDF , Leg frame from epoxy powder coated round mild steel with height adjustable feet.

**Dimensions :** 1500x750x640mm (LxDxH)

ESA63717

### Library Search Station HH

Rectangular library table with laminated finish with PVC edging. Leg base from round mild steel, privacy frame and top frame from mild steel tube epoxy powder coated. With fixed type CPU holder, cable cover and wire management , Top from 24mm thick melamine laminated MDF with PVC edging , Privacy panel from 18mm thick melamine laminated MDF with PVC edging , Top support and privacy frame from epoxy powder coated mild steel tube , Fixed type CPU holder from 18mm thick melamine laminated MDF , Leg frame from epoxy powder coated round mild steel with height adjustable feet

**Dimensions :** 1500x750x760mm (LxDxH)

ESA63718



### White Board Square Type

Porcelain enamel faced marker board , Magnetic porcelain finish board sheet white , Back from 9mm thick MDF with aluminium foil tape , With aluminium profile side rail and with pen tray.

**Dimensions :** 1220x1220mm (LxH)

ESA63722





### Art Cart Kg

Mobile Art Cart consisting with fixed divider, with 2 no shelves and anodized rod as guard rails. With bottom 2-drawer box and sides panel with bow handle , Structure are made of 18mm thick melamine laminated MDF with 3mm thick PVC edging , Anodized rod as guard rails to prevent materials from falling , castor from 75mm dia.

**Dimensions :** 1050x400x900mm (LxDxH).

ESA63728

### Art Cart Mobile

Mobile Art Cart consisting of top supply tray with with fixed divider, 2 no of with shelves anodized rod as guard rails. With bottom 2-drawer box and sides panel with bow handle , Structure are made of 18mm thick melamine laminated MDF with 3mm thick PVC edging , Anodized rod as guard rails to prevent materials from falling , castor from 75mm dia.

**Dimensions :** 1050x400x900mm (LxDxH).

ESA63729



### Display Board Mobile, 4 Fold

4 Fold Mobile Tack Board with tubular frame epoxy powder coated. All front side tack board with fabric and back side with melamine laminate , Double sided tack board with fabric as per manufacturer standard , Frame from 25x25x2mm thick epoxy powder coated mild steel tube , Leg frame from epoxy powder coated 21mm dia mild steel pipe , With 50mm dia castor.

**Dimensions :** Board Size: 1200x1500mm (LxH) Total Height 1900mm

ESA63724



### Outdoor Table, Adult

Outdoor table for adult in solid Wood top with epoxy powder coated metal frame , Top from solid wood with Polyurethane Finish , Frame from epoxy powder coated mild steel tube with height adjustable feet.

**Dimensions :** 1500x750x750mm (LxDxH)

ESA63779



### Display Board Mobile, Double Sided White & Tack

Mobile one side tack board and one side marker board with tubular frame epoxy powder coated. With castors and 2 with breaks diagonally , Magnetic porcelain finish board sheet white for marker board , With 6mm thick cork board with fabric with 3mm thick MDF inner base , With aluminium profile side rail and with pen tray for marker board , Metal frame from 50x25x1.5mm thick Mild steel tube with epoxy powder coating .

**Dimensions :** Board Size: 1250x1370mm (LxH) Total Dimension: 1300x500x1800mm (LxDxH)

ESA63723



### Outdoor Chair, Adult

Outdoor chair without backrest with strip solid wood seat , Seat in strip solid wood with wood shield finish , Frame from epoxy powder coated mild steel tube with height adjustable feet.

**Dimensions :** 1500x450x450mm (LxDxH)

ESA63778



8-channel Electronic Pipette	290
<b>A</b>	
A02P2	261
A05P2	261
A2-12Pfor ESL2012Pro only	261
A15V	270
Absorption Tube With Side Arm	42
Acid Base Titration: an Inquiry Investigation	29
Acids , Bases And Salt , Micro-chem Kit	34
Acids , Bases And Salt , Micro-chem Refil	34
Acids And Bases I Kit	26
AC power Charging Cabinet	314
Actuator Set	21
Adapter 4mm – BT	16
Adult Tracheotomy Care Simulator	65
Advance Chemistry Kit	39
Advanced Inspection and Palpation of Breast Simulator	67
Advanced Microchemistry, Class-pack	35
Advanced Microchemistry, Single Kit	35
ADVANCE TRAUMA SIMULATOR	67
AED Simulator and CPR Manikin Set	65
Anaerobic Incubator	217
Anaerobic Incubator	217
Anaerobic Incubator	217
Angle Sensor *	13
Ap Chemistry Series (Includes Kit ESC54235)	32
Ap Chemistry Series (Includes Kit ESC54236)	32
Apron Disposable Blue Universal Size Pk/100	5
Apron Disposable White Universal Size PK/100	55
Art Cart Kg	331
Art Cart Mobile	331
Autoclave Media	218
Automatic Water Still	234
Auto Pipettes Single Channel	292
<b>B</b>	
Balance ,Physics Balance 2 Pan, Hydrostatic	175
Balance 2 Pan, Plastic	175
Balance Digital- 600G/0.01G	176
Balance Digital Analytical	177
Balance Digital Basic	177
Balance Digital Basic	177
Balance Digital Precession	177
Balance Four Beam Balance 310g	175
Balance Table Top 2 Pan,Roberval , 2 Kg	175
Balance Triple Beam	175
Balance Weight Physical	178
Banana Plugs With wire	199
Banana Plugs With wire	199
Base Retort	156
Basic Casualty Simulation Kit	66

Basic Chemistry Bundle Kit	160
Basic Chemistry Sensors Bundle Kit	14
Basic Microchemistry, Class Pack Kit	35
Basic Microchemistry, Single Kit	34
Basic Model	245
Bathroom Scale Digital	175
Bathroom Scale Mechanical	175
Battery Eliminator DC 6-0 V , 1 A	200
Battery Holder	197
Battery Holders Pk Of 10	197
Battery UV Unit	200
Beaker (Euro Design) PP	146
Beaker Griffin Low Form PMP	147
Beaker Griffin Low Form PP	147
Beaker Low Form ,Heavy Duty	146
Beaker Low Form	146
Beaker Low Form	146
Beaker Tall Form	146
Beaker With Handle Low Form PMP,	147
Beaker With Handle Low Form PP	147
Beehive Shelf	42
Bench Mats	164
Bench Mats	164
Bench Top Environment Cabinet Enclosure	236
Biochemistry Student Kit	37
Biohazard Bags Pack of one hundred	63
Biohazard Kit	61
Bio Hazard Safety Cabinet	299
Blue Litmus Paper Pk/100 strips	166
Blue Pk/200 Strips	166
Book Browser Unit, Mobile, Combination,Shelf,Box And Hanger Road.	329
Book Browser Unit, Mobile, Open Top	328
Book Display Unit,4 Sided With 5 Compartments	328
Boro 3.3 Glass	45
Boss Head	157
Bottle Dropping Amber	149
Bottle Dropping Clear	149
Bottle Dropping Dispensing -LDPE	151
Bottle Dropping Glass Pipette	149
Bottle Reagent, Clear Glass	148
Bottle Reagent Amber , Narrow Mouth	148
Bottle Reagent Autoclavable Screw Cap And Pouring Ring	148
Bottle Round Boston Amber-HDPE	150
Bottle Round Boston Amber-HDPE	150
Bottle Round Boston HDPE	149
Bottle Round Boston HDPE	150
Bottle Round Boston LDPE	149
Bottle Round Boston LDPE	150
Bottle Round Boston PP	150



Bottle Round Boston PP	150
BOTTLE TOP DISPENSER	280
Bottle Top Dispenser Advance	280
Bottle Top Dispenser Electronic 99.9-0.1 ml	280
Breast Examination Simulator	67
Brush Beaker	154
Brush Burette	154
Brush Cylinder	154
Brush Flask	154
Brush Pipette	154
Brush Test Tube	154
BT-BT Extension cable (analogue)	16
BT - IEEE1394 cable	16
Bunsen Burner	164
Bunsen Burner Nickel	164
Burette 50 ml Class B	141
Burette Clamp	157
Burette Class As	141
Burette Class As	141
Burette Class AS With PTFE Key Stopcock	140
Burette Class B	141
Burette Class B	141
Burette Class B With Detachable PTFE Key Stopcock	140
Burette Class B With PTFE Key Stopcock	140
Burette Rack Wooden	159
Burette Stand	159
Buzzer Piezo	197
<b>C</b>	
Carbon 60 Model	38
Carbon Nano-tube Model	38
Carbon Rod	44
Carboy Rectangular With Stopcock -HDPE	151
Carboy With Spigot LDPE	151
Cell holder	197
Centrifuge Basic	262
Centrifuge Basic LCD	262
Centrifuge Hand, 2 X 15ml	278
Centrifuge Hand, 4 X 15ml	278
Centrifuge Tube , Conical Bottom, Graduated	278
Centrifuge Tube Sterile Bulk-Pp, 15ml	278
Chair C Frame PP Shell	326
Channel Base for protection screen	52
Characteristics Of Matter	23
Charls Law Apparatus Pk Of 10	27
Charls Law Apparatus Single	27
Chemical Equations Ii Kit	24
Chemical Equations I Kit	24
Chemical Formulas Ii Kit	24
Chemical Formulas I Kit	24
Chemical Formulas I Refill	24

Chemical Properties Kit	23
Chemical Properties Refill	23
Chemical Spill Kit, 6 litre	61
chemical spill kit	61
Chemical Spills Poster	61
Chemistry Sensors Extension Bundle Kit	14
Child CPR Training Manikin	64
Chlorine Test Strip	155
Chromatography Paper Roll G N 1	33
Chromatography Paper Sheet G N 1	33
Chromatography Tank With Lid	33
Chromium Resistance	198
Clamp Universal, Assorted	157
Clamp Universal	156
Clinical Thermometer Digital Flexi-Head	174
CMES Data Logger	10
CO2 Incubator / CO2, O2 Incubator	215
Coach 7 Desktop	10
Cobalt Chloride Test Paper	166
Cobalt Glass	165
Colorimeter 1G-7	190
Colorimeter 2.0 Basic	190
Colorimeter 2.0 Basic Set/4	190
Colorimeter Sensor	10
Computer Student Table	310
Computer Teacher Table	310
Condenser , Air Coil	45
Conductivity/TDS Portable Meter Kit	188
Conductivity EC /TDS/Salinity Pocket Tester Kit	184
Conductivity Meter Pen Type	184
Conductivity Meter Pocket Type	184
Conductivity Sensor	11
Connecting Wire With 1 Side 4mm Lead & 1 Side Crocodile clip	199
Connecting Wire With 2 Side Crocodile clips	199
Copper Model Kit	38
Copper Wire	198
Cork Borer Set 12	161
Cork Borer Set 6	161
Cork Borer Sharpener	161
Cork Stopper Assorted PK	160
Cork Stopper Bark	160
Cotton Wool Absorbent	63
Cotton Wool Non Absorbent	63
CPR Training Manikin Half-body Basic Economy	65
Crescent Table	325
Crocodile Clip Pk/10	199
Crocodile Clip With Plastic Sleeved Red Pk/10	199
Crucible Porcelain	153
Crucible Porcelain	153



Crucible Porcelain	153
Crucible Tongs With Bow	158
Crystallizing Dishes	152
Culture Tube Round Bottom	140
Culture Tube Round Bottom	140
Cuvette for Colorimeter BT29i	21
Cuvette holder for Colorimeter BT29i	21
<b>D</b>	
Data-Logger stand	16
De-soldering Pump	197
Deflagrating Spoon With Cap	165
Demo Balance Support	178
Desiccators Vacuum With Stopcock Lid And Plate	148
Dessicators With Lid Plain 150 Mm	148
Determining Molar Enthalpy Using Hess's Law	30
Determining Molar Mass Using The Ideal Gas Equation	30
Determining The Equilibrium Constant (and Temperatures Effect) Withbeers Law	31
Dia 10Mm X H - 25 mm PP.	165
Diamond Model Kit	38
Digital 3D Shaker LCD	249
Digital Linear Shaker LCD	247
Digital Linear Shaker LED	247
Digital Rocking Shaker 7" LED	248
Digital Rocking Shaker 9" LCD	248
Digital Rotary Evaporator	295
Digital Rotator LCD	241
Disc Polarimeter	195
Disinfectant Wipes	54
Dispersion Head Selection Guide	254
Display Board Mobile,4 Fold	331
Display Board Mobile,Double Sided White&Tack	331
Dissolved Oxygen Meter	188
Distillation Set Quickfit	44
Double Beam Balance	175
Draining Basket	159
Drop Counter Attachment for photo-gate	13
Drop Neutralization Kit	34
Dropping Pipette With Rubber Teat	142
Dry Bath (Block Heater ) Digital LED	233
Drying Cabinets	212
Drying Rack,	160
Ducted Fume Extractor Cabinet 2	236
Ducted Fume Extractor Cabinet	235
Ducted Spray Booth	236
DVD/CD Display Stand Unit	329
<b>E</b>	
E15-30 (round bottom) for ESL58506	272
E50-8 (round bottom) for ESL58506	272
Ecology and weather kit - Standard Kit	169

Economical Rotator	241
Economy Bunsen Burner Adjustable	164
Economy Digital Balance 500 x 0.01g	178
Electric Burner	219
Electrochemical Cells Voltaic And Electrolytic	32
Electrode Holder Flexible	188
Electrolysis Cell	44
Electronic Micropipette	289
Electronic Pipette	291
Electronic Titrator, (Electronic Burette ) 99.99 - 0.01 ml	280
Electrophoresis System	292
Elements, Compounds & Mixtures I I	41
Elements, Compounds & Mixtures II Kit Refill	41
Elements, Compounds & Mixtures I Kit	41
Elements, Compounds & Mixtures I Kit	41
Emergency Asthma Kit	58
Emergency Burns Kit	57
Emergency Shower Wall Mounted	62
Emergency Shower With Eye Face Shower	62
Emergency Shower Without Eye Face Shower	62
Engineering Rule	196
Eppendorf Tubes 1.5 ml Autoclavable	278
Eppendorf Tubes 2 ml Autoclavable	278
Erlenmeyer Flask with Screw-Cap	143
Erlenmeyer Flask with Screw-Cap	143
ES02P05	268
ES02P2	268
ES05P2	268
ES12-PCR8 for ESL58506	271
ES12-V5	267
ES5-18	268
ES5-18V (cone bottom) for ESL58506	272
ES2-MP for ESL58506	271
ES2-24	267
ES2P17	260
ES2-30 for ESL58506	271
ES05-36	267
ES5P17	260
ES50-6V (cone bottom) for ESL58506	272
ES2-60 for ESL58506	271
ESA02P2	259
ESA04-RCR8	259
ESA05P2	259
ESA2-8P	259
ES Data-logging Software	15
ES Desktop Meter	186
ES Desktop Meter	187
ESL-R03AR Series Abbe Refractometer	195
ES Pocket Meter	182
ES Portable Meter	185





ESS4-PCR8	267
Eureka Constantan Wire	198
Evaporating Dishes Ceramic, 70 ml	152
Expansion adapter socket	45
Eye Emergency Signs	57
Eyewash Bottle	57
Eyewash Pod Station	57
Eye Wash Shower Double Table Mounted	62
Eye Wash Shower Double Wall Mounted	62
Eye Wash Station Cederroth	58
<b>F</b>	
Face Mask For Dust	56
Face Shield	51
Families Of Elements I Kit	41
Features	289
Felt Tipped Pens PK/12	200
Filter Paper	155
Filter Paper	155
Fire Blanket	57
First Aid Arm	64
First Aid Center Complete - BS 8599 Compliant	58
First Aid Kit Class Room	59
First Aid Kit Medium Size	59
First Aid Kit Primary School	58
First Aid Kit Secondary School	58
First Aid Kit Small	59
First Aid Poster For Children	61
Fixed Eyewash Station	57
Fixed Safety Screen	52
Flake Ice Maker	297
Flask Distillation With Side Arm	143
Flask Erlenmeyer Narrow Neck	142
Flask Erlenmeyer Narrow Neck	142
Flask Erlenmeyer Narrow Neck 250ML With Rubber Stopper	142
Flask Erlenmeyer Round Bottom Wide Neck	143
Flask Erlenmeyer Wide Neck	143
Flask Filtration	155
Flask Flat Bottom Narrow Neck	143
Flask Round Bottom Narrow Neck	143
Flask Supports Cork Ring	53
Flask Volumetric, Class B	144
Flask Volumetric Class A	144
Flexible Desk Lamp	197
Flower Table	324
Fluorescent Dye Kit	25
Foam Rubber Matting 60x40, Bench Mats	53
Folding Safety Screen	52
Fume Cabinet Ductless	305
Fume Cupboard Mobile Eduscienc 1000Rs	304
Fume Cupboard Static Filtration	304

Funnel Analytical PP, 100Mm	155
Funnel Boro Glass	155
Funnel PP,	153
Funnel Stand	158
<b>G</b>	
Gas Jar Cover Dia 6 Cm	42
Gas Jar Cylindrical Boro	42
Gas Syringe	42
Gas Tap 2 Way 180 Degree	237
Gas Tap 2 Way 90 Degree	237
Gauze Swab Non Sterile	63
G Clamp	166
Ge Filtration: Plant Pigments	33
General Incubator Models:	215
Glass Stirring Rod	154
Glass Tube Cutter	162
Gloves, Leather Pair	53
Gloves Disposable Blue Powder Free - Pk/ 100 .	54
Gloves Disposable Clear Powdered - Pk/ 100 .	54
Gloves Disposable Clear Powder Free - Pk/ 100 .	54
Gloves Disposable White Powdered - Pk/ 100 .	55
Gloves General Purpose - Pair	55
Gloves Neoprene	55
Gloves Polythene	55
Graphite Model Kit	38
<b>H</b>	
Half-body CPR	64
Half-body CPR Training Manikin with Obstruction	65
Half Arc Table	324
Half Round Table	324
Handheld Homogenizer	252
Hand Protectors - Silicon	53
Hand Protectors - Silicon Superior	53
Hazard tape :	63
Heat Absorption Radiation Comparator	27
Heating Coil	21
Heating Mantle Controlled	232
Heat Resistance Gloves Pair	53
Height & Weight Scale Advance	175
Height & Weight Scale Basic	175
Hematocrit Centrifuge ESL-1224	263
Hematocrit Centrifuge ESL-1424	263
High-speed Refrigerated Micro Centrifuge	275
High Efficiency Filter Cabinet	237
High Shear Homogenizer	253
High Speed Micro Centrifuge	264
High Speed Mini Centrifuge	261
High Speed Refrigerated Centrifuge	276
Hinged Lid Assymoulded Lid New Style Clear Plastic	210
Hoffman Electrolysis Apparatus	42



Hollow stopper	45
Hood Mounted Filtration Cabinet	237
Horseshoe Table	324
Hot Plat ADV	220
Hot Plat ADV LCD	219
Hot Plate & Magnetic Stirrer	225
Hot Plate Basic I (Electric Burner) 500 W	219
Hot Plate Magnetic Stirrer Basic	223
Hotplate Magnetic Stirrer Digital LED 280C	223
Hot Plate Magnetic Stirrer Mini	222
Hot Plate Magnetic Stirrer Pro	223
Hot Plat Magnetic Stirrer LCD ADV	225
Hot Plat Magnetic Stirrer LED ADV	225
Hot Plat Magnetic Stirrer Multi	229
Hot Plat Magnetic Stirrer PRO Round	223
Hot Plat Pro	220
Hygrometer Hair Type	168
Hygrometer Masons	168
Hygrometer Thermo Hygrometer	168
<b>I</b>	
Ice Melting Kit	27
ICE Model Kit	38
Identifying Weak Acids By PKA	31
Incubator Compact	214
Incubators General Purpose	214
Inorganic Organic Student Kit	39
Inorganic Organic Teacher Kit	40
Ionic Interaction Kit	25
Ionic Interaction Refill	25
IRON Model Kit	39
<b>K</b>	
Kinetic Theory Model	43
<b>L</b>	
Lab Coat Blue Poly-cotton Men Small	56
Lab Coat White Poly-cotton Men	56
Laboratory Jack	160
Lab Stools Standard ES 1	310
Lab Stool Stacking PP	310
Lab Student Bench Octagonal Shape	309
Lab Student Bench Octagonal Shape With Tap & Sink	309
Lab Teacher Bench	309
Lab Thermometer	167
Lab Thermometer	167
Lab Thermometer	168
Lab Thermometer	168
Lab Thermometer Classroom Wall Kit With Chart	168
Lab Thermometer Investigation Science Kit	168
Lab Thermometer Kit For Classroom	168
Lab Trolley Three Tier Apparatus	309
Lab Wall Bench	309

Laminar Flow Clean Bench	298
Lamp Bulb E 1.5 ,10v/0.2a (10pcs/Pack)	197
Lamp Bulb E 10 ,10V (10 PCS/Pack)	197
Lamp Bulb E 12 ,10V (10 PCS/Pack)	197
Lamp Bulb E 2.5 ,10v/0.5a (10 Pcs/Pack)	197
Lamp Bulb E 10,5V (10 PCS/Pack)	197
Lamp Bulbs, Lens Ended	197
Lamp Bulbs, Round	197
Lamp Bulbs, Round	197
Lamp Holder Mounted SBC	197
Laptop Table, Oval Type	326
LCD Digital Linear Shaker	246
LCD Digital Orbital Shaker	243
LCD Digital Overhead Stirrer	256
LCD Digital Tube Roller	242
Lead Acid Accumulator	200
Le Chateliers Principle	31
LED Overhead Stirrer	257
Lens Cleaner Spray	51
Lens cleaning tissue paper	54
Library Search Station HH	330
Library Search Station LH	330
Library Search Station MH	330
Liebig condenser with glass connector	45
Liebig condenser with screw thread	45
Light Sensor *	11
Light Sensor *	11
Light Sensor with three ranges	11
Litmus Paper Red	166
Litmus Paper Red Pk/100 strips	
Long Stem	155
Low-speed Centrifuge	260
<b>M</b>	
Magnesium Model Kit	39
Magnetic Retriever	165
Magnetic Stirrer Advance	221
Magnetic Stirrer Basic	221
Magnetic Stirrer Mini	221
Magnetic Stirrer Pro LCD	221
Magnetic Stirrer with Heating Mantle 2 in 1	227
Mask Paper Play	56
Mask With Valve Pk/10	56
Material Storage Cabinet Wooden	329
Matter And Its Changes Kit 1	22
Matter And Its Changes Kit 2	22
Matter And Its Changes Kit 3	22
Max-Min Thermometer Electronic	171
Max Min Digital Heavy Duty , Green	170
Max Min Thermo&Hygrometer Electronic Jumbo	170
Max Min Thermometer cream Quick-set	



Max Min Thermometer Dial (Bimetallic)	170
Max Min Thermometer Digital Classic Design	170
Max Min Thermometer Digital Heavy Duty , White	170
Max Min Thermometer Digital Mini Lidded	170
Max Min Thermometer Digital Waterproof Boxed Grey	170
Max Min Thermometer Heavy Duty , Green	171
Max Min Thermometer Lidded Green Push Button	171
Max Min Thermometer White Magnet Re-Set	171
Max Min Thermometer White Quick-Set	171
Measuring Cylinder , Class B, Hex Base	145
Measuring Cylinder ,Class A, Round Base	144
Measuring Cylinder, Class B, Hex Base	144
Measuring Cylinder , Class B, Hex Base	144
Measuring Cylinder, Class B , Plastic Base.	145
Measuring Cylinder PMP, Class A	145
Measuring Cylinder PMP, Class B	145
Measuring Cylinder PP Class B	145
Measuring Cylinders- PP	145
Measuring Scoop	165
Measuring Tape	196
Melting Point Apparatus Analogue	179
Melting Point Apparatus Digital	179
Melting Point Tube (Pk/100)	179
Mercury Collector	61
Micro-Pipette Fixed Volume Advance	283
Micro-Pipette Fixed Volume Basic	283
Micro-Pipette Multi Channel Variable Range Advance	288
Micro-Pipette Multi Channel Variable Range Basic	287
Micro-pipette Variable Range Basic	284
Micro-Pipette Variable Volume Advance	285
Micro-Pipette Variable Volume Pro	286
Micro Centrifuge	259
Micro Centrifuge	292
Micrometer 25 -0 mm	196
Micrometer 25-0 Mm With Lock	196
Micrometer Digital	196
Mini Motor DC	197
Mini Pipette	281
Mini Tablet Charging Trolley - 10-Bay or 12-Bay	311
Mini Vortex Mixer	240
Mixed Glassware - Class Pack	148
Mixing Cylinder , Boro 3.3 , With Plastic Stopper	144
Mobile Food Technology Bench	303
Mobile Science Bench	302
Molarity I Kit	25
Molarity I Refill	25
Molecular Model, Fullerene C-60	36
Molecular Model, Graphite	36
Molecular Model	36
Molecular Model Diamond	36

Molecular Model Orbit System, Basic	37
Mortar & Pestle	152
Multi-Functional	290
Multi-Purpose Low-speed Centrifuge	269
Multi-Purpose low Speed Centrifuge	273
Multi-Purpose Refrigerated Centrifuge	276
Multifunctional Model	245
Multiple adapter 2 neck one joint at 45 degree socket	45
Multiple Casualty Simulation Kit	66
Multi Stirring Palte 10 Analoue	222
<b>N</b>	
Neoprene Bunsen Burner Hose,	164
Neutral Pk/100 Strips	
Neutral Pk/200 Strips	166
New Born CPR Training Manikin	64
Noise Reduction Headphones Adult & Children	53
Nuffield Raised Centre 14 cm	165
<b>O</b>	
Open Shelve Cabinet Wooded With 25 Compt.	326
Open Shelve Cabinet Wooded With 8 Totes ,	327
Open Shelve Cabinet Wooden With 12 Totes ,	327
Open Shelving Metal, Depth 1	328
Open Shelving Metal, Depth 2	328
Open Shelving Unit, 3 Shelves H 1	327
Open Shelving Unit, 5 Shelves H 2	327
Organic Chemistry Glassware Kit 16Pcs	44
Organic Chemistry Glassware Kit 9Pcs	44
Organic Quick fit Set - 27BU/M - 23/14 Joints	44
Organic Student Kit	39
Organic Teacher Kit	40
ORP Sensor	11
Outdoor Chair, Adult	331
Outdoor Table, Adult	331
Oven General Purpose	213
Ovens Drying Moisture Extraction	212
Ovens Incubators Dual Purpose	212
<b>P</b>	
Paddle Blender	240
Paper Towel	54
Parafilm	166
Particle Filter Ifa2p (Pack Of 6)	236
PCR Thermal Cycler Basic	292
PCR Thermal Cycler Basic	292
PCR Thermal Cycler Basic System Complete Package	292
Pencil	200
Petri Dish, Boro 3.3 Glass	152
Petri Dish	152
PH and Conductivity Meter Desk Top	188
Pharmacy & Lab Refrigerator (+25/2C)	68
Pharmacy & Lab Refrigerator (+25/2C) Glass Door	69



Pharmacy & Lab Refrigerator	296
Pharmacy & Lab Refrigerator	296
PH electrode	16
PH Meter Desk Top	188
PH Meter Pen Type	183
PH Meter Pocket Type	183
PH Meter Potable Hand-held	183
Photo-gate	13
Photometer Portable Cell Holder Cover	191
Photometer Portable Mini	191
Photometer Portable Round Cell Holder	191
PH sensor	13
Physical And Chemical Properties Kit	23
Physical Properties Kit	23
Pip-clay Triangle	165
Pipette Aid	142
Pipette Controller	281
Pipette Filler Electronic ADV	282
Pipette Filler Electronic Basic	282
Pipette Graduated (Serological), Class B	141
Pipette Graduated, Class AS Capacity 0.1 ML	142
Pipette Pump	281
Pipettes Stand Linear	290
Pipettes Stand Round	290
Pipette Stand Rotary Vertical	142
Pipette stand rotary vertical pp, 94 places	142
Pipette Tips With Rack	278
Pipette Transfer	142
Pipette Transfer	142
Pipette Volumetric	141
Pipette Volumetric Class AS	141
Pipette Washer PP	142
Plastic Container	151
Plate For Simple Cell Carbon	43
Plate For Simple Cell Copper	43
Plate For Simple Cell Lead	43
Plate For Simple Cell Zinc	43
Preparing Buffer Solutions And Determining Their Properties	31
Pressure Sensor	13
Primary Science Bench	303
Product Features	172
Protective Screen	52
Pycnometer To Gay Lussac, Calibrated, Class A	147
<b>Q</b>	
Quick-fit Air Leak Tube Gas Inlet Tube	46
Quick-fit Condenser Liebig	45
Quick-fit Condenser Liebig With Screw-thread	45
Quick-fit Cone- Screw-thread Adaptor	47
Quick-fit Dropping Funnel, Open	47

Quick-fit Dropping Funnel Stem With Cone	47
Quick-fit Expansion Adaptor	45
Quick-fit Flask Conical	46
Quick-fit Flask Pear Shaped	46
Quick-fit Flask Pear Shaped With Tow Necks	46
Quick-fit Flask Round Bottom, Short Neck	47
Quick-fit Joint Clips Conical Joints	45
Quick-fit Multiple Adapter With 2 Necks	45
Quick-fit Receiver Adaptor	45
Quick-fit Receiver Adaptor	46
Quick-fit Receiver With Vented Bend	46
Quick-fit Recovery Bend Sloping Adaptor	46
Quick-fit Reduction Adaptors	45
Quick-fit Reduction Adaptors	45
Quick-fit Separating Funnel Conical Squibb Shape	46
Quick-fit Still Head	46
Quick-fit Thermometer Pocket	46
<b>R</b>	
Rack of 96 Pipette Tips 200-0 µl	292
Rain Gauge Plastic	169
Reaction Rate And Order	30
Reaction Rate Factors I Kit	26
Receiver adapter bend with vent socket	46
Receiver delivery adapter long stem socket	46
Receiver delivery adapter short stem socket	45
Recovery bend sloping cone size to fit flask	46
Rectangular Table	324
Reduction adapter socket	45
Refrigerated Rack for PCR	292
Resuscitation Poster	63
Retort Ring With Boss-head	156
Ribbed Rubber Mat	309
Rocking Shaker Platform Fixed	244
Rocking Shaker Platform LED	244
Rotor	277
Rotor Features	266
Rotors and Adapters	267
Rotors and Adapters	268
Rubber Gloves For Chemical Use	54
<b>S</b>	
Safety Cabinet Acid And Alkali Floor	306
Safety Cabinet Drugs and Poisons	307
Safety Cabinet Hazardous, Floor	307
Safety Cabinet Radioactive Storage	307
Safety Goggle ES07	51
Safety Goggle ES07	51
Safety Goggle Sporty ES01	51
Safety Goggles Soft Vinyl Direct Vent	50
Safety Goggles Soft Vinyl Direct Vent	50
Safety Goggles Soft Vinyl Splash PPE - Youth Size	50





Safety Socket For Banana Plugs	199
Safety Spectacle ES130	50
Safety Spectacle ES660	50
Safety Spectacle ES661	50
Safety Spectacle ES802	50
Safety Spectacle ES9008	51
Safety Spectacle ESX6	51
Safety Spectacle Hanger	51
Salinity Sensor	12
Salt Bridge	43
Sandpaper Pack of 10 sheets	200
School First Aid Room	60
Science Cart	302
SE100-4	270
Separating Funnel	152
Separating Funnel pear Shape PTEE	47
Separating Substances-by Adsorption Chromatography	29
Shaking Incubator	216
Shaking Incubator Model :	216
Shapes Of Molecules Electron Repulsion Theory	40
Sharps Containers	57
Simple Chromatography Kit	33
Simple Gas Preparation Kit	43
Slotted Masses And Hanger 12 pc 200 GR BRASS	178
Slotted Masses And Hanger	178
Smart Charging Cart WB-CC-H	322
Smart Charging Trolley	320
Smart materials handling kit	200
Smoke Cell - Whitley Bay	27
Sodium Chloride Model Kit	40
Soil Thermometer	169
Soldering Iron	197
Soldering Iron Stand	197
Solids Materials Kit- In Gratnell Storage Tray	27
Spare Carbon Electrodes In Rubber Stoppers	42
Spare Platinum Electrodes In Rubber Stoppers	42
Spatula Chattaway	165
Spatula Spoon PP	165
Spatula With Spoon	164
Spectrophotometer	192
Spectrophotometer Double Beam UV VIS	191
Spectrophotometer UV VIS Smart	190
Spectrophotometer Vis	191
Spectrophotometric analysis Of Copper: Beers Law	28
Spherometer Superior	196
Spirit Lamp	164
Spirit Lamp Glass	164
Spray Booth	237
Spray Bottle	149
Spring Balance	176

Spring Balance	176
Spring Balance	176
Spring Balance	176
Stainless Steel Gabled Lid	210
Standard top (Default)	238
Stand Base A-Shaped	156
Stand Road	156
Stand Set Base & Road , Steel Base	156
Stand Set Base And Road , Steel Base	156
Statistics: Precision and Accuracy	28
Statistics: Precision and Accuracy With Glass Ware	28
Steel Rod	156
Sterilizer Hot Air	218
Still head plain socket 23/14 cone size to fit flask	46
Stirring Bar	165
Stirring Rod PP	165
Stoichiometry: Mole Ratio Of An Unknown	29
Stoichiometry: Reactions With Copper Compounds	29
Stoichiometry Kit	34
Stoichiometry Refill	34
Stool stacking PP 685mm black	310
Stop Clock	180
Stopper Rubber	161
Stopper Rubber One Hole, Pk Of 50 Pcs	161
Stopper Rubber Silicon	162
Stopper Rubber Tow Holes, Pk Of 50 Pcs	161
Stopwatch Analogue	181
Stopwatch Budget	180
Storage Cabinet Wooden With Doors 4 Shelves	329
Storage Cabinet Wooden With Doors 5 Shelves	329
Student Art , Science Stool	326
Student Spectrophotometer USB and Bluetooth	190
Student Spectrophotometer USB and Bluetooth kit & Optical Fiber	190
Student Table	325
Student Table Free-form Kg	325
Surgical Face Mask Ear Loop	56
Suspension Clamps	158
Switch Module	21
Sync & Charging Trolley	312
Synthesis and Gravimetric Analysis Of Cobalt Oxalate Hydrate	28
<b>T</b>	
Tablet Charging Trolley	316
Tablet Charging Trolley	318
Table Top Autoclave	218
Teacher Table	325
Temperature Sensor *	12
Temperature Sensor	12
Temperature Strip	166
Test Tube	140



Test Tube	140
Test Tube Half Rack	159
Test Tube Holder-Wire Pattern	159
TEST Tube Holder With Wooden Handel	159
Test Tube Holder Wooden	159
Test Tube Rack	159
Test Tube Rack	159
Test Tube Rack Plastic	159
Test Tube Rack Stainless Steel 12 X 32mm	210
Test Tube Rack Stainless Steel 18 X 19mm	210
Test Tube Rack Wooden,	159
Test tube stand (wire pattern ) - 13mm x 90 Tubes	159
Test Tube Stand (Wire Pattern )	159
Test Tube Stand Z Pattern - 200 X 125 X 75mm	158
Test Tube Without Rim	140
Thermal Cyclor Regression	293
Thermal Cyclor Regression Advance	293
Thermal Cyclor Standard	293
Thermocouple *	12
Thermometer - Digital Hand Held with Probe	169
Thermometer Dial	168
Thermometer Digital	169
Thermometer Digital Basic with probe -50 to +150°C/°F	169
Thermometer Digital Oral	174
Thermometer Digital Probe With Timer	174
Thermometer Digital Water resistant with Probe -40 to +200°C/°F	169
Thermometer Infrared Body Tempreature	173
Thermometer Infrared Compact Hand Held	172
Thermometer Infrared Dual Laser	172
Thermometer Infrared Ear Thermometer	174
Thermometer Infrared Forehead	173
Thermometer Infrared Hand Held	172
Thermometer Stand	158
Thistle Funnel	152
Tiles Porcelain With 12 Cavities	154
Timer , Countdown Digital Large	181
Timer , Countdown Digital Mini	181
Timer , Digital Kitchen Timer And Clock	181
Timer , Dual Timer And Clock	180
Timer , Four Way Timer And Clock	180
Timer Bench Top	180
Timer Slimline	181
Timer Triple Timer And Clock	181
Titratior - Step - Motor Burette	21
Tong-Beaker,With Rubber Sleeves Cover	158
Tong Beaker	158
Tong Crucible Straight	158
Tong Flask St. Steel Cork Lined Jaw	158
Trapezoid Table	325

Trauma Moulage Kit	66
Tripod Stand	160
Trolley With Grattells Tray	308
Trough Pneumatic, Polypropylene, Dia 18cm, Height 6cm	43
Trough Pneumatic, Soda Glass	43
Trough Pneumatic, Soda Glass	43
Trough Pneumatic, Soda Glass	43
Trowel	165
Tube Combustion, Borosilicate Glass	165
Tube Combustion	165
TUBE DELIVERY, SET OF 4	153
Tube Delivery, Set Of 6	153
Tube Roller	242
Tubing Clip	162
Tubing Connector	163
Tubing Connector U Shape Glass	163
Tubing Connector U Shape Plastic	163
Tubing Glass	162
Tubing Rubber	163
Tubing Silicon	163
Turbidity sensor	12
<b>U</b>	
Ultrasonic Bath	210
Ultraviolet Sterilization Goggle Cabinet - 30-Goggle Model	52
Uncapping block	270
Universal Bottle With Screw Cap	149
Universal Indicator Paper PH 11-1	166
Universal Indicator Paper PH 14-1	166
USB Barometer Sensor	16
USB Light Sensor	15
USB Oxygen Sensor	15
USB PH Sensor	15
USB Temperature Sensor	16
USB Turbidity Sensor	15
<b>V</b>	
Vacuum Oven Models	213
Vacuum Pump Electric	279
Vacuum Pump Electric Lab Use	279
Vacuum Pump Hand Operated	279
Vernier Calliper - Whirl, Plastic	196
Vernier Calliper - Whirl, Steel	196
Vernier Calliper Aluminium	196
Vernier Calliper Digital	196
Vibrating Atom Kit	39
Viscometer Ostwald	163
Visking Tubing	163
Vortex Mixer Adjustable Speed	238
Vortex Mixer Fixed Speed	238
<b>W</b>	
Wall Room Thermometer Plastic	169



Wall Thermometer	169
Wash Bottle	151
Wash Bottle 500ml	151
Wash Bottle Integral Side Spout	151
Wash Bottle WM LDPE	151
Washing up Bowl	151
Watch Glass	153
Water Bath 100 °C - 16 Tubes	201
Water Bath Digital Triple-bath	209
Water bath Irwin school	210
Water Bath Laboratory 20L Digital	201
Water Bath Thermostatic	205
Water Bath Thermostatic 2 Ltr Shallow, Comp. W. S.steel Perforated False Base	207
Water Bath Thermostatic Digital	202
Water Bath Thermostatic Digital Oil Heating Circulator	206
Water Bath Thermostatic Triple	208
Water Bath Thermostatic Unstirred Analogue	204
Water Bath Thermostatic Unstirred Digital	203
Water Bath Ultrasonic, Thermostatic Heated And Timed ,Ultrasonic -230V	211
Water Mixer Swan Neck Tap With Lever	237
Water Still 4 Ltr /Hour Borosil Automatic Double Distillation	235
Water Still 4 Ltr /Hour Borosil Automatic Single Distillation	235
Water Still 4 Ltr /Hour Borosil Basic	234
Water Still 4 Ltr /Hour Borosil Basic Plus	234
Water Still 4 Ltr /Hour Borosil Basic Pro	234
Water Still 4 Ltr /Hour Borosil Silica Heater	235
Water Still 4 Ltr /Hour Metal Element	234
Water Swan Neck Tap Cold With Lever	237
Water Swan Neck Tap Hot	237
Water Test (Qualitative Ion) Kit	25
Weighing Bottle Ground Squat Form 50X25mm	147
Weight Hooked Masses	179
Weight Masses Hexagonal With Lifting Ring	179
Weight Ring	166
Weight Set Hooked Weight	178
Weight Set Primary Weight	178
Weights Hooked Flat	179
Weight Slotted Masses And Hanger,	178
Weiging Boats	176
Whirling Hygrometer	168
White Board Square Type	330
Winchester Bottle 2.5 Ltr	147
Wire Gauze With Ceramic Centre	164
Wire Holder, Plastic Handle	165
Wireless B-Differential Gas Pressure Sensor Range: ~ 650 4650 hPa	20
Wireless CO2 Gas Sensor	19
Wireless Colorimeter/ Turbidity Sensor	20
Wireless Conductivity Sensor	18

Wireless Current Sensor	17
Wireless Dissolved Oxygen Sensor	20
Wireless Electrode Amplifier Sensor	19
Wireless Fine Particles Sensor	19
Wireless Force & Acceleration	18
Wireless Gas Pressure Sensor	17
Wireless ORP	19
Wireless Oxygen Gas Sensor	19
Wireless PH Sensor	18
Wireless pH with Glass Body (100oC)	18
Wireless Salinity Sensor	20
Wireless Temperature / Humidity Sensor	20
Wireless Temperature Sensor	17
Wireless Thermocouple Sensor	20
Wireless Voltage Sensor	17
Wire PVC Coated Reel (MS)	199
Wooden Splints	164
<b>Z</b>	
Zinc Sulphide Model Kit	40

## FURTHER CATALOGUES

- GENERAL SCIENCE CATALOGUE
- BIOLOGY & ENVIRONMENTAL CATALOGUE
- PHYSICS & STEAM CATALOGUE
- HEALTH CARE EDUCATION CATALOGUE
- FURNITURES CATALOGUE
- PRESCHOOL & KG FURNITURE CATALOGUE





**EduScience UK<sup>®</sup>**  
We Contribute To Future Education

**United Kingdom**

**Tel : +44 (0)203 8685740**

**[sales@eduscienceuk.com](mailto:sales@eduscienceuk.com)**

**[www.eduscience.co.uk](http://www.eduscience.co.uk)**

**[www.eduscienceuk.com](http://www.eduscienceuk.com)**