

# WHEATON® PRODUCT PORTFOLIO OVERVIEW



**DURAN  
WHEATON  
KIMBLE**

Excellence in your hands

# DWK Life Sciences

## THE NEW NAME FOR PREMIUM LABORATORY PRODUCTS

In June 2017 the companies DURAN Group, Wheaton Industries and Kimble Chase merged to form a new global company – DWK Life Sciences.

DWK Life Sciences combines the expertise of the acclaimed product brands DURAN®, WHEATON® and KIMBLE®. As one of the world's leading manufacturers of premium lab glass, DWK Life Sciences offers its customers a complete range of high-quality laboratory glassware – from the classic disposables to reusable precision glassware. Additionally, DWK Life Sciences develops and produces a wide range of plastic labware and specialty products for life science applications as well as packaging and storage solutions for the pharmaceutical industry.

The DWK Life Sciences product portfolio comprises over 30,000 products manufactured at 11 sites in Europe, North America and Asia. Globally, more than 1,700 employees work on the development and production of innovative products and services to meet the high expectations of customers in laboratories around the world – inspired by the company slogan "Excellence in your hands".

## WHEATON®

### EXCELLENT PRODUCTS FOR RESEARCH AND INDUSTRY

Satisfied customers, scientists and trading partners around the world put their trust in WHEATON® products. The WHEATON® brand is characterized by years of experience in the development and manufacture of containers made from glass and plastic. Today, the WHEATON® portfolio not only includes innovative products for the Life Science laboratory, but also instruments, customized container solutions and closure systems for research and industry.

Our experienced product managers and sales representatives would be delighted to assist.

See [DWK-LifeSciences.com](http://DWK-LifeSciences.com) for how to get in touch with your contact persons, as well as much more information about WHEATON® and DWK Life Sciences.



Find out more:  
[www.DWK-LifeSciences.com](http://www.DWK-LifeSciences.com)



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# GLASS BOTTLES

Glass bottles made of soda-lime glass are a perfect, low-cost solution for the general storage of liquids and solids. Amber bottles are suitable for storing light-sensitive substances. Chemical compatibility for a wide variety of applications is ensured by an extensive selection of caps and liners. **All bottles are available with caps attached or in bulk packs without caps.**

In comparison with borosilicate glass, the resistance of soda-lime glass to thermal shock tends to be low due to its high thermal expansion. A maximum service temperature of +100 °C is recommended here. Sterilization with dry heat can be used to avoid premature glass corrosion.



## BOSTON ROUND BOTTLES

- Clear or amber soda-lime glass, USP Type III
- Volumes from 30 to 1000 ml



## FRENCH SQUARE BOTTLES

- Clear or amber soda-lime glass, USP Type III
- Square shape maximizes storage space
- Volumes from 15 to 500 ml

## VALUMETRIC™ GRADUATED BOTTLES

- Clear soda-lime glass, USP Type III
- Easy removal of contents thanks to large screw opening
- Graduated in ml and oz
- Volumes from 30 to 500 ml



## SNAP CAP SAMPLE BOTTLES

- Clear soda-lime glass, USP Type III
- Attached caps made from LDPE
- Ideal for sample retrieval and storage
- Volumes from 4 to 120 ml

## WIDE-MOUTH PACKERS

- Clear or amber soda-lime glass, USP Type III
- Ideal for storage of dry powders
- Easy removal of content thanks to large screw opening
- Volumes from 30 to 4000 ml



# PLASTIC BOTTLES

Plastic bottles and containers are used for a wide variety of applications. The use to which they are put depends on the characteristic properties that each container is given by the polymer from which it is made. While polypropylene can for example be sterilized through autoclaving, this is not possible with polyethylene.

**Detailed information about the characteristic properties of different plastics can be found in the technical part of the WHEATON® product catalogue.**

## WIDE-MOUTH PACKERS

- **High-density polyethylene (HDPE), natural color**
- Good chemical resistance
- Wide mouth design makes removing solids easy
- Available either round or square to maximize storage space
- **Volumes from 60 to 1000 ml**



## WIDE-MOUTH CONTAINERS

- Container and cap made from polypropylene
- Durable container with good chemical resistance
- Version with linerless cap is autoclavable
- **Volumes from 30 to 1000 ml**



## LEAK RESISTANT BOTTLES

- **High or low-density polyethylene (HDPE/LDPE) or polypropylene (PP)**
- Amber or natural color
- Double seal closure for leak resistance
- Bottles made from HDPE are flexible, but more rigid than those in LDPE
- Available with narrow or wide mouth
- **Volumes from 4 to 1000 ml**



## STERILE MEDIA BOTTLES

- **Polyethylene terephthalate glycol (PETG)**
- pH stability guaranteed by excellent gas barrier properties
- Sterile, tamperproof seal ensures product integrity prior to use
- Recommended temperature range +70 °C to -40 °C
- Supplied in cleanroom packaging
- Available with standard or tamper evident safety cap
- Meets the biocompatibility requirements as per ISO 10993 and/or USP Class VI
- Suitable for contact with foods, free of animal-derived components
- **Volumes from 30 to 2000 ml**

## STERILE MEDIA BOTTLES

- **Polyethylene terephthalate (PET)**
- Supplied in cleanroom packaging with caps attached
- 24 bottles per tray
- In-mold graduations
- **25 ml volume**

# LIQUID SCINTILLATION VIALS

WHEATON® vials for liquid scintillation (LS) are specially designed to ensure compatibility with scintillation counters. In addition to liquid scintillation applications, these vials are also suitable for general laboratory use and sample storage. A wide selection of liners and caps ensures chemical compatibility with most samples, solvents or analytes. **Vials and caps are available pre-assembled or packaged separately.**



## LS VIALS, GLASS

- **Clear borosilicate glass, USP Type I**
- Background counts are consistent and low
- High UV transmission
- **Volume either 6 or 20 ml**



## LS VIALS, HDPE

- **High-density polyethylene (HDPE)**
- Low-cost alternative to vials made from glass and PET
- Lightweight walls for greater counting efficiency
- Manufactured to precise tolerances
- **Volume either 6 or 20 ml**



## LS VIALS, PET

- **Polyethylene terephthalate (PET)**
- The clarity of glass combined with the safety of plastic
- Low permeability to solvents
- Minimal background counts
- Safe disposal of vials via incineration, without any release of harmful gases
- **Volume 20 ml**

## UTILITY TRAYS

- Suitable for storage and collection of samples
- Vials are packaged in 5 utility trays, with each partitioned tray holding 100 vials
- In the case of vials without caps attached, the caps come in a separate tray



## VIAL RACKS

- Suitable for transport and storage of LS vials and also as a vial organization system
- 50 positions with alphanumeric indexing
- Openings in the bottom
- Stackable, even when vials are in place
- Easy to clean, autoclavable



# SAMPLE VIALS



- Clear or amber borosilicate glass, USP Type I
- Wide range of applications: sample retrieval, storage and transport
- Choice of solid top or open top screw caps for direct access with a syringe
- Vials and caps are autoclavable
- Volumes from 2 to 60 ml

## SHORTY VIALS®

- Low profile for greater stability
- Less dead volume
- Volumes from 2 to 6 ml



## VIAL FILE®

- Polystyrene case
- With partitions, foam insert and alphanumerical indexing card
- Compact, easy accessible solution for sample storage



## LAB FILE®

- Partitioned trays for easy storage
- Caps attached to ensure cleanliness

# DIAGNOSTIC VIALS

WHEATON® diagnostic vials made from high-quality, USP Type I borosilicate glass are a practical alternative to serum vials. They combine the benefits of an aluminum seal with the convenience of a screw cap. Bromobutyl stoppers can be pierced with a needle for easy sampling. No crimper needed.



- Clear or amber borosilicate glass, USP Type I
- Ideal for lyophilization
- Suitable for use with an I-Loc™ closure or screw cap and thin flange stoppers
- Volumes from 5 to 30 ml

## I-LOC™ CLOSURE

- Polypropylene screw cap with bromobutyl stopper
- Suitable for use with diagnostic vials
- Screw cap and stopper are permanently attached to each other
- Autoclavable



## POLYPROPYLENE SCREW CAP

- Available in 5 colors
- For use with thin flange stoppers
- Choice of solid top or open top screw caps for direct access with a syringe
- Autoclavable

## THIN FLANGE STOPPER

- Gray bromobutyl
- For use with screw caps for diagnostic vials
- Autoclavable

# SERUM VIALS WITH CRIMP TOP



- Clear or amber borosilicate glass, USP Type I
- Ideal for lyophilization and long-term sample storage
- High dimensional stability, uniform wall thickness
- For use with aluminum seals and rubber stoppers (page 9)
- Volumes from 2 to 20 ml

# HIGH RECOVERY VIALS WITH CONICAL WELL

WHEATON® high recovery vials made from USP Type I borosilicate glass are ideal for collecting, storing and transporting samples for which maximum content retrieval is required. Thanks to the unique design of the vial bottom, sample losses can be cut by up to 99.1%. On request, vials can be labeled with barcodes for clear identification.

## E-Z EX-TRACTION® VIALS

- Clear borosilicate glass, USP Type I
- Manufactured to close tolerances, so enabling use with automated sample handling systems
- Conical well for maximum sample retrieval
- Reduce product waste by up to 97.7%
- Choice of solid top or open top screw caps for direct access with a syringe
- Volumes from 2 to 20 ml



## NEXTGEN™ V VIALS®

- Clear or amber borosilicate glass, USP Type I
- Heavy-walled design for additional protection of contents
- Conical well for maximum sample retrieval
- Reduce product waste by up to 99.1%
- Screw thread or crimp top
- Graduated or non-graduated
- Choice of solid top or open top screw caps for direct access with a syringe
- Volumes from 0.1 to 10 ml



You can find detailed information about our range at:  
[www.DWK-LifeSciences.com](http://www.DWK-LifeSciences.com)





**SOLID TOP SEALS**

- Ideal for long-term sample storage

**FLIP CAP SEALS**

- Provide tamper evidence
- The stopper can be exposed for access with a syringe or removed completely after taking off the plastic cap



**SEALS WITH CENTER DISC TEAR-OFF**

- Remove completely, allowing the contents to pour from the container

**SEALS WITH OPEN TOP OR CENTER DISC TEAR-OUT**

- Expose the stopper for sample retrieval with a syringe
- Use center disc tear-out for cost-effective tamper evidence

**E-Z CRIMPER/DECAPPER™**

- Used to attach/remove aluminum seals to/from crimp top vials
- Cushioned ergonomic handle for less fatigue to the hand
- Marked for fast size identification
- Polished jaws for uniform crimping



# ALUMINUM SEALS AND RUBBER STOPPERS

Thanks to its wide selection of aluminum seals and rubber stoppers, WHEATON® offers the perfect closure for every container. Rubber stoppers can be easily pierced with a syringe for sample retrieval and are also autoclavable.

**LYOPHILIZATION STOPPERS**

- Chlorobutyl, gray
- Also available as Ultra Pure Stoppers, made from an extremely pure bromobutyl formulation
- 2-leg, 3-leg or 'igloo' style

**SNAP-ON STOPPERS**

- Optimum sealing for vials with a blow-back glass finish
- Extensive range of different rubber formulations



**RUBBER STOPPERS WITH FOLD-OVER SKIRT**

- Natural rubber, red
- Stoppers with a fold-over skirt for sealing serum finish vials without using an aluminum seal

**STRAIGHT PLUG STOPPERS**

- Optimum sealing for vials with straight-wall glass finish
- Also available as Ultra Pure Stoppers, made from an extremely pure bromobutyl formulation
- Also available with a PTFE-like coating
- Extensive range of different rubber formulations

# CELL CULTURE

The WHEATON® product portfolio offers a wide range of products for cell culture applications. Besides classical roller bottles and spinner flasks, CELLLine™ bioreactor flasks are an innovative alternative for the production of recombinant proteins. The bioreactor is characterized by a semipermeable 10-kDa membrane, which divides the interior into a cell and a media compartment. This makes it possible to achieve exceptionally high cell density levels and product concentrations in comparison with conventional cultivation methods.



## CELLINE™ BIOREACTOR

- High cell density and product concentration
- Reduced effort for purification of the protein produced
- Available for monolayer and suspension cultures
- Reduced need for consumables
- Cost-efficient, space-saving, stackable
- Available as 350 or 1000 ml version



## CELSTIR® SPINNER FLASKS

- Clear borosilicate glass, USP Type I
- Available for suspension and microcarrier cultures
- Available as a double-walled version for precise temperature control
- Sterile design – stirrer shaft does not protrude through cap
- 1:1 headspace ratio for optimum gas exchange
- Volumes from 25 to 8000 ml



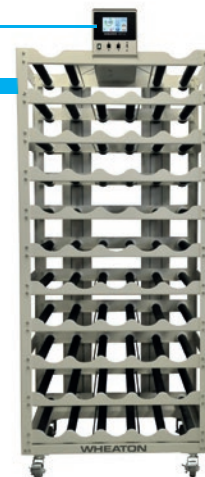
## ROLLER BOTTLES

- Clear borosilicate glass, USP Type I
- Available with different cap configurations
- Usable surface area of 550 to 1555 cm<sup>2</sup>



## WHEATON® STANDARD ROLLER

- Bright LCD display for easy operation
- Smooth ramping, rotation accurate to 0.01 rpm
- Options: rotation alarm and battery backup system



## WHEATON® R2P™ 2.0

- Robust touchscreen user interface
- Smooth ramping, rotation accurate to 0.01 rpm
- Capability for remote control and monitoring using SCADA systems
- System event log downloadable via USB for reliable process documentation
- Rotation alarm included
- Options: Temperature monitoring and battery backup system

## BENCH-TOP SYSTEMS

- Ideal for pilot applications
- Deck kits available for double or triple capacity
- Speed control via rotary dial (without additional display)



# BIOBANKING

The WHEATON® CryoELITE® product line offers unrivaled cap seals to guarantee the best possible protection for your samples. Made from cryogenic-grade virgin polypropylene, these vials are lot certified as free from RNase / DNase and endotoxins.

## CRYOELITE® CRYOGENIC VIALS

- **Polypropylene (PP)**
- Internal or external thread
- Graduations printed on all vials
- Free-standing vials with conical well for maximum sample retrieval
- Round-bottom vials for centrifugation at max. 17,000 RCF (xG)
- Optional bottom insert with 2D barcode for unique sample identification
- **Volumes from 1.2 to 5 ml**

## CRYOELITE® TISSUE VIALS

- **Polypropylene (PP)**
- Wide mouth for insertion and removal of tissue with forceps
- Storage boxes compatible with standard storage systems
- **Volume 5 ml**



# BOD BOTTLES

WHEATON® offers a complete range of products for environmental sample collection, preparation and analysis. WHEATON® BOD bottles are ideal for incubating diluted samples of sewage, effluent, polluted water and industrial waste to determine the biochemical oxygen demand.



- **Clear borosilicate glass, USP Type I**
- The bottle's specially designed shoulder radius allows all air to escape from inside during filling
- The flared mouth of the bottle forms a seal around the stopper
- Large writing patch on all bottles
- Un-numbered or numbered to 432
- **Volumes from 60 to 300 ml**



## REPLACEMENT STOPPERS

- **Clear borosilicate glass, USP Type I**
- Tapered bottom to prevent air entrapment
- Robotic stopper for use with automated systems or Pennyhead stoppers



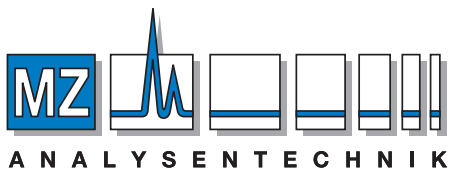
## BOD BOTTLE CAPS

- **Made from polyethylene**
- Prevents evaporation of the water seal during incubation
- The pressure exerted on the bottle stopper by the foam insert ensures a secure hold



## BOD BOTTLE RACK

- For transporting BOD bottles safely and conveniently
- Racks are stackable
- Not autoclavable



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