



Quality Products for Environmental Sampling & Analysis

Environmental

WHEATON offers a complete line of products for environmental sample collection, preparation and analysis according to the Environmental Protection Agency (EPA) methods. Products include BOD bottles, samplers, coliwasas and analytical apparatus.

WHEATON BOD Bottles are ideal for incubating diluted samples of sewage, sewage effluents, polluted waters and industrial wastes to determine the amount of oxygen required during the stabilization of the decomposable organic matter by aerobic biochemical action.

Sampling devices, including samplers and coliwasas, are available for use with liquids, solids, sludges, soil and water. These products are designed for industrial and QC applications, environmental compliance, hazardous / toxic materials evaluation and site evaluation / remediation work.

For more information on WHEATON Environmental, contact your WHEATON Regional Manager or Customer Service at 800-225-1437.

BOD Bottles

- Ideal for incubating diluted samples of sewage, sewage effluents, polluted waters and industrial wastes to determine the amount of oxygen required during the stabilization of the decomposable organic matter by aerobic biochemical action
- We recommend the 300mL capacity bottles for the five-day BOD test as referenced in Standard Methods for the Examination of Water and Wastewater, 21st Edition, 5210B, 2005
- Specially designed bottle shoulder radius that sweeps all air from inside the bottle during filling
- The interchangeable stoppers have a tapered bottom that prevents air entrapment

- The bottles have a flared mouth to form a water seal around the stopper that prevents air from being drawn into the bottle during incubation
- Stopper joint is compatible with the probes of the leading meters for BOD and dissolved oxygen
- Large, permanently screened-on writing patch on all bottles
- Manufactured from USP Type I borosilicate glass





60mL BOD Bottle

300mL BOD Bottle

				60mL BOD Bottle	300mL BOD Bottle	
Cat. No.	Cap (mL)	Number Sequence	Barcoding	Dia x H (mm)	Stopper	Qty/Case
227494-00G	60mL	Un-numbered	No	43 x 115	Glass Pennyhead	36
227494-00	60mL	Un-numbered	No	43 x 115	Glass Robotic	36
227494-01G	60mL	01-36	Yes	43 x 115	Glass Pennyhead	36
227494-01	60mL	01-36	Yes	43 x 115	Glass Robotic	36
227494-02G	60mL	37-72	Yes	43 x 115	Glass Pennyhead	36
227494-02	60mL	37-72	Yes	43 x 115	Glass Robotic	36
227494-03G	60mL	73-108	Yes	43 x 115	Glass Pennyhead	36
227494-03	60mL	73-108	Yes	43 x 115	Glass Robotic	36
227494-99G*	60mL	Specials	Yes	43 x 115	Glass Pennyhead	36
227494-99*	60mL	Specials	Yes	43 x 115	Glass Robotic	36
227498	300mL	Un-numbered	No	69 x 143	Without Stopper	24
227497-00G	300mL	Un-numbered	No	69 x 165	Glass Pennyhead	24
227497-00	300mL	Un-numbered	No	69 x 165	Glass Robotic	24
227497-01G	300mL	01-24	Yes	69 x 165	Glass Pennyhead	24
227497-01	300mL	01-24	Yes	69 x 165	Glass Robotic	24
227497-02G	300mL	25-48	Yes	69 x 165	Glass Pennyhead	24
227497-02	300mL	25-48	Yes	69 x 165	Glass Robotic	24
227497-03G	300mL	49-72	Yes	69 x 165	Glass Pennyhead	24
227497-03	300mL	49-72	Yes	69 x 165	Glass Robotic	24
227497-04G	300mL	73-96	Yes	69 x 165	Glass Pennyhead	24
227497-04	300mL	73-96	Yes	69 x 165	Glass Robotic	24
227497-05G	300mL	97-120	Yes	69 x 165	Glass Pennyhead	24
227497-05	300mL	97-120	Yes	69 x 165	Glass Robotic	24
227497-06G	300mL	121-144	Yes	69 x 165	Glass Pennyhead	24
227497-06	300mL	121-144	Yes	69 x 165	Glass Robotic	24
227497-07G	300mL	145-168	Yes	69 x 165	Glass Pennyhead	24
227497-07	300mL	145-168	Yes	69 x 165	Glass Robotic	24
227497-08G	300mL	169-192	Yes	69 x 165	Glass Pennyhead	24
227497-08	300mL	169-192	Yes	69 x 165	Glass Robotic	24
227497-09G	300mL	193-216	Yes	69 x 165	Glass Pennyhead	24
227497-09	300mL	193-216	Yes	69 x 165	Glass Robotic	24
227497-10G	300mL	217-240	Yes	69 x 165	Glass Pennyhead	24
227497-10	300mL	217-240	Yes	69 x 165	Glass Robotic	24
227497-11G	300mL	241-264	Yes	69 x 165	Glass Pennyhead	24
227497-11	300mL	241-264	Yes	69 x 165	Glass Robotic	24
227497-12G	300mL	265-228	Yes	69 x 165	Glass Pennyhead	24 24
227497-12 227497-13G	300mL	265-228	Yes	69 x 165	Glass Robotic	24
227497-136	300mL	289-312 289-312	Yes	69 x 165	Glass Pennyhead Glass Robotic	24
227497-13 227497-14G	300mL 300mL	313-336	Yes Yes	69 x 165 69 x 165	Glass Pennyhead	24
227497-146	300mL	313-336	Yes	69 x 165	Glass Robotic	24
227497-14 227497-15G	300mL	337-360	Yes	69 x 165	Glass Pennyhead	24
227497-150	300mL	337-360	Yes	69 x 165	Glass Robotic	24
227947-16G	300mL	361-384	Yes	69 x 165	Glass Pennyhead	24
227497-16	300mL	361-384	Yes	69 x 165	Glass Robotic	24
227497-17G	300mL	385-408	Yes	69 x 165	Glass Pennyhead	24
227497-176	300mL	385-408	Yes	69 x 165	Glass Robotic	24
227497-17 227497-18G	300mL	409-432	Yes	69 x 165	Glass Pennyhead	24
227497-18	300mL	409-432	Yes	69 x 165	Glass Robotic	24
227497-16 227497-99G*	300mL	Specials	Yes	69 x 165	Glass Pennyhead	24
227497-994	300mL	Specials	Yes	69 x 165	Glass Robotic	24
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^{*} For specials contact WHEATON Customer Service

Replacement Stoppers

■ For 60mL and 300mL BOD Bottles



227670

Cat. No.	Description	Qty/Case
227670	Robotic Stopper, Glass	12
227672	Pennyhead Stopper, Glass	12

BOD Bottle, Black, 300mL

- Ideal for light sensitive samples
- Coated with black PVC plastic to block all visible light up to 800nm to inhibit the production of oxygen by algae
- Recommended for use in marine photosynthesis projects when comparing oxygen in a light and a dark bottle
- Supplied with a glass robotic stopper and an opaque black cap
- Manufactured from USP Type I borosilicate glass



Cat. No.	Dia x H (mm)	Qty/Case
227667	73 x 167	20

^{*}For replacement stoppers use Cat. No. 227670

BOD Bottle, 2L

- Recommended for long-term BOD and ultimate BOD analysis
- Manufactured from WHEATON 33 low extractable borosilicate glass that conforms to USP Type I and also ASTM E 438 Type I Class A requirements and comes complete with a glass robotic stopper



Cat. No.	Dia x H (mm)	Qty/Case
227580	128 x 272	1

^{*}For replacement stoppers use Cat. No. 227670

BOD Bottle Aerator

- 40-60µm porosity glass frit
- For use with 300mL bottle
- EPA Method 245.1 Manual Cold Vapor Technique
- Used in determining inorganic forms of mercury and organic mercurials in drinking, surface and saline waters, as well as domestic and industrial waste
- Manufactured from WHEATON 200 low extractable borosilicate glass that conforms to USP Type I and also ASTM E 438 Type I, Class A requirements



BOD Bottle Cap

- Polyethylene cap prevents evaporation of the water seal during the five-day BOD incubation period
- Includes foam insert to exert pressure on the bottle stopper to hold it securely



Cat. No.	Description	Qty/Case
227723	BOD Bottle Cap	
50		

BOD Bottle Rack

- Conveniently and safely transports BOD bottles
- Racks are stackable



Cat. No.	For Bottle Size	Holds	L x W x H (in)*	Qty/Case
W227729	60mL	20 Bottles	13 x 10 x 7 in	1
W227731	300mL	12 Bottles	13 x 10 x 7 in	1

^{*33.03} x 25.4 x 17.78cm

BOD Stopper Leash

- Rubber leash prevents loss of stoppers
- Leash has 10mm diameter holes at each end to expand to fit securely around both the stoppers and the bottle necks



Cat. No.	Description	Qty/Case
776580	Stopper Leash	25

High Efficiency BOD Incubator







Typically chilled incubators use a compressor and refrigerant to cool samples. This is inefficient and may require regular service. The WHEATON BOD incubator uses a solid state electric device to regulate temperature. This increases the efficiency by greater than 75%, decreasing electricity usage and HVAC requirements. Next time you are looking to increase incubator capacity or need to replace a gas guzzling compressor model, consider a WHEATON BOD incubator.

- Heating and cooling from 15 to 40°C
- Outfitted with high capacity sag-free adjustable shelves to hold up to 300 bottles per unit

Cat. No. Plug Style		Voltage	Qty
20 Cubic ft.			
W753800-A	North America	120 VAC	1
W753800-B	Japan	100 VAC	1
W753800-C	Continental Europe	230 VAC	1
W753800-D	United Kingdom	230 VAC	1
W753800-F	Australia / China	240 VAC	1
W753800-G	Italy / Chile	230 VAC	1
W753800-J	India	230 VAC	1

	Specifications —
Capacity:	20 Cubic ft, 300 Bottles
Interior Dimensions: W x D X H	
	26 x 24 x 59" (66 x 61 x 150cm)
Exterior Dimensions: W x D X H	
	30 x 31 x 70" (77 x 79 x 178cm)
	Microprocessor Controlled ±0.1°C
	±0.5°C at 20°C
Shelving:	
3	5 Included / Adjustable
Interior Flectrical Outlet: 1	
intendi Lieuthoai Outlet. 1	1100/2200

- Forced convection system for uniform temperature
- Can also be used for Drosophila / Insect, Reptile, Fish and Amphibian growth
- Bench top units available (6 cu. ft.)

Cat. No. Plug Style		Voltage	Qty
6 Cubic ft.			
W753801-A	North America	120 VAC	1
W753801-B	Japan	100 VAC	1
W753801-C	Continental Europe	230 VAC	1
W753801-D	United Kingdom	230 VAC	1
W753801-F	Australia / China	240 VAC	1
W753801-G	Italy / Chile	230 VAC	1
W753801-J	India	230 VAC	1

	Specifications —
Capacity:	6 Cubic ft, 120 Bottles
Interior Dimensions: W x D X H	
	26 x 24 x 18.5" (66 x 61 x 47cm)
Exterior Dimensions: W x D X H	30 x 31 x 34" (77 x 79 x 85cm)
Temperature Range:	15-40°C (at 20°C Ambient)
	±0.5°C at 20°C
	100-240 VAC, 50/60 Hz,
Shelving:	2 Included / Adjustable
	110V/220V



Bomb Sampler

- Ideal for sub-surface liquid sampling
- 500mL capacity
- These units are constructed of corrosion resistant Type 302 stainless steel
- A weighted plunger with a FKM "O" ring seals the reservoir chamber at the bottom
- Use a cable to lower sampler to desired depth
- Pull second cable to operate the sampling valve and release to reseal the chamber
- Cables not included
- Recommended for use with a cable that can support 50 pounds or more and is made from stainless or PTFE coated stainless steel

Cat. No.	Capacity (mL)	Dia x Length	Qty/Case
885200	500	2.75 x 10" (7 x 25.4cm)	1

Drum Thieves

- Drum thieves are ideal for quick and easy sample retrieval
- To use, simply insert one end of the drum thief into a drum and hold a finger over the opening on the other end to trap liquid in the tube
- Carefully remove the drum thief and empty the contents into a testing container
- Disposable
- Open ended
- These soda-lime glass units are 43" long and can be easily broken for quick disposal

Cat. No.	Approx. Capacity (mL)	Dia (mm)	Qty/Case
885300	25	7.5	100
885302	75	12	24
885303	150	18	24





- Manufactured from clear PVC
- Sampling can be achieved up to 20'
- Modular design adds flexibility by enabling the connection of several sections to form a longer sampling unit up to 20' (610cm)
- Provided with a 48" long cleaning brush
- Dimensions (ID x OD): 1 3/8" x 1 5/8" (3.5 x 4.12cm)

Cat. No.	Description	Approx. Volume (mL)	Qty/Case
Coliwasa Un	it		
885250	4' (122cm) Coliwasa Unit	760	1
885252	6' (183cm) Coliwasa Unit	1100	1
Extension ar	nd Connector		
885253	4' (122cm) Extension and Connector	760	1
885255	6' (183cm) Extension and Connector	1100	1
Replacemen	t Parts		
885258	Bottom Plate and SS Nut	_	1





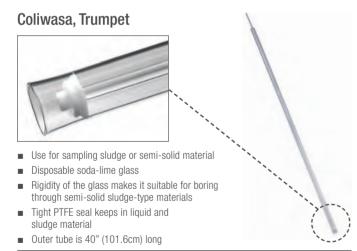
Coliwasa Sampler, Glass





- Used to collect composite liquid samples from top to bottom in drums, tanks and reservoirs
- Easy to use
- Disposable or reusable units available
- Liquid-tight PTFE seal eliminates sample leakage
- PTFE seal design permits sampling to within 1/2" of drum bottom
- After a sample has been collected, lower and press lightly on the inner tube, which positively seats the PTFE seal, locking the sample column into place
- Unit has a tapered bottom with an approximate diameter opening of 1/2", (1.3cm) and a sample capacity of 200mL
- Prescored samplers make disposal easier
- Dimensions: Diameter 7/8" x Length 42", (2.25cm x 106.5cm)

Cat. No.	Description	Material	Qty/Case
Disposable Unit			
885220	Pre-scored	Soda-Lime Glass	12
Reusable Unit			
885230	Unscored	Borosilicate Glass	12
885231	Pre-scored	Borosilicate Glass	12
Replacement Seals			
885232	Replacement Seals	PTFE	10



Cat. No.	Description	Qty/Case
885235	200mL Capacity	

E-Z Sampler®

- Ideal for sampling unknowns from open-top drums and tanks
- Manufactured from chemically resistant polypropylene
- The E-Z Sampler® has a 39" (100cm) head/shaft assembly and is supplied with a 125mL borosilicate glass bottle with a PTFE lined cap
- Filling ports are located above the bottle to ensure that it is completely filled to reduce the possibility of air entrapment
- Bottle has a 33-430 screw thread finish



Sub Surface Grab Sampler® I

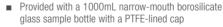
- Ideal for sampling from spillways, docks and other sub surfaces
- No need to physically enter the sample area
- Eliminates surface contamination
- Helps meet EPA requirements for water and wastewater sampling
- Lightweight construction
- Constructed of 72" x 3/4" (183 x 2cm) square aluminum tubing with a golden anodine finish
- Provided with a 1000mL narrow-mouth borosilicate glass sample bottle with a PTFElined cap and clamps for large and small bottles



Cat. No.	Description	Qty/Case
990250	Sub Surface Grab Sampler® I	1
990477	Replacement Sample Bottle, 1000mL, 38-430	1
240481	Black Phenolic Replacement Cap, 38-430, with PTFE Liner	100

Sub Surface Grab Sampler® II

- Excellent for accessing fluid flow in deep manholes and hard to reach sub-surface sampling areas
- Helps meet EPA requirements for water and waste water sampling
- Available in lengths up to 18' (5.5m)
- Each sampler consists of an inert polypropylene head with stainless steel fittings and an aluminum pole assembly with a golden alodine finish



- To use it, screw a sample bottle into the head and lower to the desired depth
- Pull the cable at the top of the handle which will lift a spring-loaded plunger from the bottle opening, allowing liquid to enter through four 5/8" diameter holes
- Release the cable when the bottle is full to reset the plunger

Cat. No.	Description	Qty/Case
990350	6' (183cm) Sub Surface Grab Sampler® II	1
990400	12' (366cm) Sub Surface Grab Sampler® II	1
990450	18' (549cm) Sub Surface Grab Sampler® II	1
990477	Replacement Sample Bottle, 1000mL, 38-430	1
240481	Black Phenolic Replacement Cap, 38-430, with PTFE Liner	100



Sub Surface Grab Sampler® III

- Use when sampling hazardous and corrosive materials, as well as wastewater
- Chemically resistant stainless steel and polypropylene construction
- Wide mouth accepts light sludges and slurries
- Modular design uses 6' add-on sections up to 24' in length
- The Grab Sampler® III fits wide-mouth bottles with a 70-400 screw thread finish
- A displacement plunger allows the collection of samples in a 1000mL bottle with approximately 1 inch of head space between the sample and the underside of the bottle closure
- Safety-coated 1000mL soda-lime glass bottle and a green urea cap with a PTFE liner is included
- An extension kit (990471, sold separately) includes a 6' stainless steel extension shaft, coupling and connecting cable
- To use it, you pull a cable that lifts a spring-loaded plunger, allowing liquid to enter through four 5/8" x 1-1/2" slots
- Release the cable when the bottle is full to reset the plunger

Cat. No.	Description	Qty/Case
990470	Sub Surface Grab Sampler® III	1
990471	6 ft. (183cm) Extension Kit	1
216641	Safety Coated Sample Bottle, 32 oz., 70-400 (without cap)	12
239244	Polypropylene Replacement Cap, 70-400, with PTFE Liner	48

Sample Bottle, Narrow Mouth

- For use with Sub Surface Grab Sampler® I & II
- 1000mL narrow mouth borosilicate glass bottle
- 38-430 screw cap with PTFE liner
- Autoclavable
- The bottle has a hand grip for easy handling



Cat. No.	Description	Qty/Case
990477	1000mL Bottle with Cap	1

Sample Bottle, Wide Mouth

- For use with Sub Surface Grab Sampler® III
- 1000mL wide mouth borosilicate glass bottle
- 70-400 screw cap with PTFE liner
- Autoclavable
- These wide mouth sample bottles can be repeatedly autoclaved and come with PTFElined caps



Cat. No.	Description	Qty/Case
990476	1000ml Rottle with Can	1

Weighing Dishes

- Made from aluminum
- Ideal for milligram weighing
- Use with liquids or solids
- Smooth surface ensures complete transfer
- Use of balance-type forceps enables easy grasping



Cat. No.	Dia x H (mm)	Qty/Case
370790	11 x 6	1000
370792	20 x 8	1000

EPA Vial, 40mL

- Ideal for use in water sampling according to EPA 40 CFR 136, "Guidelines for Establishing Test Procedures for the Analysis of Pollutants"
- Clear vials manufactured from WHEATON 33 low extractable borosilicate glass that conforms to USP Type I and ASTM E438 Type I, Class A requirements



- Amber vials manufactured from WHEATON 320 amber glass that conforms to USP Type I requirements for light transmission to protect light-sensitive products
- Caps attached to vials
- Vials packaged in convenient travs for ease of use

		,			
Cat. No.	Size (mL)	Size (dr)	*Dia x H (mm)	Cap Size	Qty/Case
Clear Vial	with Open Top B	lack Phenolic P	TFE Faced Silicon	e Lined Cap	
225310	40	10	28 x 98	24-400	72
Amber Vial	with Open Top	White Polyprop	ylene PTFE Faced	Silicone Lined	Сар
225315	40	10	28 x 98	24-400	72

^{*}Measurement taken with cap attached.

Replacement Screw Caps & Septa

Cat. No.	Description	Cap Size	Qty/Case
W240518	Black Phenolic Open Top Screw Cap w/o Septa	24-400	200
W240598	10 mils PTFE / 90 mils Silicone Septa for 24-400 Sci	rew Cap —	100
W224600	White Glass-Filled Open Top Polypropylene Cap		
	with Bonded 5 mils PTFE / 120 mils Silicone Septa	24-400	200

Vials for Environmental Analysis



Cat. No.	Size (mL)	Size (dr)	Dia x H (mm) (cap on)	Cap Size	Qty/Case
Clear Vial with Open Top White Polypropylene PTFE Faced Silicone Lined Cap					
(Septa of 5 mils	s of PTFE facing 1	20 mils of silicon	ne is bonded to cap.)		
W224609	20	5	28 x 60	24-400	72
W224610	25	6.25	28 x 73	24-400	72
W224611	40	10	28 x 98	24-400	72

Amber Vial with Open Top White Polypropylene PTFE Faced Silicone Lined Cap

W224614	40	10	28 x 98	24-400	72
W224612	20	5	28 x 60	24-400	72
(Septa of Simils	OFFIFE facility 12	O ITHIS OF SHICOHE	is borided to cap.)		

TCLP Extraction Bottle

- Use these bottles to determine if any of 40 contaminants are in waste material
- Heavy-duty borosilicate bottles are
 used in EPA methods 1310 Extraction
 Procedure, 1311 Toxicity Characteristic
 Leaching Procedure (TCLP) and 1312
 Synthetic Precipitation Leaching
 Procedure (SPLP) for those substances
 subject to regulation under Subtitle C of the
 Resource Conservation and Recovery Act (RCRA)



- Bottles have GPI 100-400 thread finish
- Pre-cleaned TCLP bottles are available as special order.
 Contact WHEATON Customer Service for more information

Cat. No.	Capacity (L)	Description	OD x Length (mm)	Qty/Case
216711	2.2	Single-End Opening	110 x 325	1
216712	2.2	Double-End Opening	110 x 334	1
216731	3.2	Single-End Opening	110 x 450	1

TCLP Extraction Bottle Cap





- 100-400mm polypropylene screw cap
- For use with TCLP Extraction Bottles
- Purchase liners separately

Cat. No.	Description Qty/C	ase
240202	White heavy duty PP screw cap; resilient to mechanical and chemical attack	4
240203	White heavy duty PP screw cap with center hole	
	Use with Zitex® Cap Liner (Cat. No. 240555) to self-vent the bottle	4
240204	White light duty PP screw cap with a shorter skirt	4

Cap Liner



- For TCLP Extraction Bottles
- Zitex® liner consist of a laminate that combines Zitex®, a porous form of PTFE with unique venting properties, to a resilient foam backing
- PTFE / Silicone liner consists of 0.005" PTFE bonded to 0.060" silicone and provides excellent chemical resistance

Cat. No.	Description	For Cap Size (mm)	Qty/Case
240555	Zitex® Cap Liner	100-400	4
240557	PTFE / Silicone Cap Liner	100-400	4

Imhoff Cone, Plastic

- Designed for volumetric determination of settleable solids
- Cone is externally graduated from the plug up to 1000mL
- Imhoff Cone is manufactured from an acrylic copolymer and includes a rubber plug and polypropylene cap
- Remove the leak-resistant screw cap and plug to clean
- Reference: Standard Methods for the Examination of Water and Wastewater, 21st Edition (2005), Method 2540 F
- 3 and 4-place Imhoff Cone Racks are sold separately and are constructed of epoxy-coated, heavy-gauge steel to provide long life

Cat. No.	Description	Size (mL)	Top Dia x Length (mm)	Qty/Case
W990800	Imhoff Cone	1000	108 x 451	4
Imhoff Cone	Racks			
990760	3-Place Rack	_	_	1
990760-4	4-Place Rack	_	_	1

Drum Opener

- Can be used with hazardous materials
- Cast from lightweight, durable aluminum alloy and features a quarter-turn opening action
- Opens all 3/4" and 3" closures



Cat. No.	Description	Qty/Case
885295	Drum Opener	1

Scoop, Stainless Steel

- Manufactured from 18/8 stainless steel
- Ideal for sampling powders, slurries, soils, etc.
- Dimensions: Overall length is 9-1/2" (24cm); the bowl's dimensions are 5 1/2" x 3" x 1 1/8" (14 x 7.6 x 2.9cm) 4oz



Cat. No.	Description	Qty/Case
885540	Scoop	4

Oil Sample Bottle, Clear

- Clear, Type III soda-lime glass
- Bottles come with cork inserted



Cat. No.	Capacity (oz)	Capacity (mL)*	Dia x H (mm)	Qty/Case
W216994	4	125	37 x 163	144

^{*}Approximate capacity

Arsine Generator

- Used for arsenic analysis using silver diethyldithiocarbamate (SDDC) colorimetric method described in the 21st Edition (2005) of Standard Methods for the Examination of Water and Wastewater, Method 3500-As B
- Design eliminates the ball and socket joint connecting the scrubber and absorber components
- Assembled apparatus is freestanding and easy to use
- Manufactured from WHEATON 33 low extractable borosilicate glass that conforms to USP Type I and ASTM E 438 Type I, Class A requirements

Cat. No.	Description	Qty/Case
180030	Arsine Generator, Complete	1
Component Parts		
180034	Scrubber Absorber Tube	1
635965	Reaction Flask, 200mL, 24/40 Joint	1
357331	Short Disposable Pasteur Pipettes (150mm long)	1000
297746	Clamp, Acetal Resin, Size 14, Yellow	12
297752	Clamp, Acetal Resin, Size 24, Green	12
970440	Drying Tube, 14/20 Joint	1

Arsine Generator, Clear-Seal™ Joint

With Standard Taper 24/40 Clear-Seal[™] Joint

- Engineered for arsine analysis using the silver diethyldithiocarbamate (SDDC) colorimetric method
- Meets ASTM / USP and EPA specifications
- Arsine absorber (Cat. No. 180021) has a socket joint
- Scrubber tube (Cat. No. 180022) has a standard taper 24/40 Clear-Seal[™] joint and a spherical 12/2 ball joint held together by a size 12 stainless steel ball joint clamp
- Manufactured from WHEATON 33 low extractable borosilicate glass that conforms to USP Type I and ASTM E 438 Type I, Class A requirements
- Reference: "Standard Test Method for Arsenic in Water." ASTM D2972

Cat. No.	Description	Qty/Case
180020	Arsine Generator, Complete	1
Component Parts		
180021	Arsine Absorber Joint	1
180022	Arsine Scrubber Tube 24/40, 12/2 Joint	1
635926	Erlenmeyer Flask, 125mL, 24/40	1
297784-12	Clamp, Size 12/2, Stainless Steel	1

Arsine Generator, Modified

With One-Piece Scrubber / Absorber Unit

- Modified version of catalog number 180020 for arsine analysis
- Eliminates the cumbersome ball and socket joint connecting the scrubber and absorber tubes which conforms to ASTM / USP and EPA specifications
- The freestanding system has a standard taper 24/40 Clear-Seal[™] joint
- Manufactured from WHEATON 33 low extractable borosilicate glass that conforms to USP Type I and ASTM E 438 Type I, Class A requirements
- Reference: "Standard Test Method for Arsenic in Water," ASTM D2972

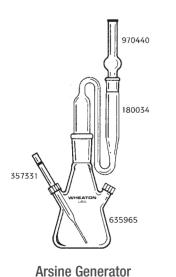
Cat. No.	Description	Qty/Case
180023	Arsine Generator, Modified, Complete	1
Component Parts		
180024	Scrubber Absorber Tube	1
635926	Erlenmeyer Flask, 125mL, 24/40	1

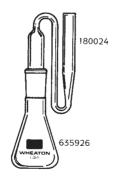
Cyanide Distillation Kit

With Clear-Seal[™] Joints

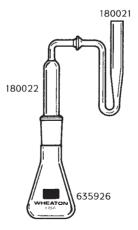
- Ideal for removing interfering substances in quantitative analysis for cyanide
- The sample is reacted with H₂SO₄ and MgCl₂, which converts any cyanide to HCN
- HCN distills over and is absorbed in a NaOH solution, which is then analyzed for CN
- Manufactured from WHEATON 33 low extractable borosilicate glass that conforms to USP Type I and ASTM E 438 Type I, Class A requirements
- Utilizes standard taper Clear-Seal[™] joints
- Reference: "Standard Test Method for Cyanides in Water," ASTM D2036

Cat. No.	Description	Qty/Case
377160	Cyanide Distillation Kit, Complete	1
Component Parts		
377161	Absorber Tube, 19/38	1
377162	Absorber Top, 19/38	1
377163	Cold Finger, 29/42	1
377164	Cold Finger Jacket, 29/42	1
377165	Flask, 1000mL, 19/38	1
377166	Inlet Tube, 19/38	1

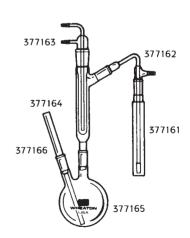




Arsine Generator, Modified



Arsine Generator, Clear Seal™ Joint



Cyanide Distillation Kit

Diazomethane Generator

With Standard Taper Clear-Seal™ Grease-Free Joints

- Used to generate diazomethane and other gases for gas chromatography, mass spectroscopy and NMR studies using one millimole of Methylnitronitrosoguanidine (MNNG)
- Features Clear-Seal[™] grease-free joints that have never been ground and does not require an "O" ring
- Includes a plastic standard taper joint clamp, a 13-425 screw cap with cut-out top and a PTFE faced rubber liner
- Manufactured from WHEATON 33 low extractable borosilicate glass that conforms to USP Type I and ASTM E 438 Type I, Class A requirements
- Note: Please use a safety shield and efficient fume hood when generating diazomethane or similar gases



Cat. No.	Description	Approx Height (mm)	Qty/Case
281135	Diazomethane Generator, Complete	190	1
W240593	13mm PTFE Faced Butadiene Septa		100

Diazomethane Generator

- Used to generate diazomethane and other gases for gas chromatography, mass spectroscopy and NMR studies using one millimole of Methylnitronitrosoguanidine (MNNG)
- Includes an "0" ring clamp, a 13-425 screw cap with a cut-out top and a PTFE faced rubber liner
- Manufactured from WHEATON 33 low extractable borosilicate glass that conforms to USP Type I and ASTM E 438 Type I, Class A requirements
- Note: Please use a safety shield and efficient fume hood when generating diazomethane or similar gases



Cat. No.	Description	Approx Height (mm)	Qty/Case
281155	Diazomethane Generator, Complete	200	1
281158	"O" ring for Cat. No. 281155		12
W240593	13mm PTFE Faced Butadiene Septa		100

Evaporative Concentrator, Kuderna-Danish

. With Clear-Seal™ Joints

- Designed for the concentration of trace amounts of analyte in an organic solvent prior to analysis
- Smooth Clear-Seal™ joints eliminate the need for grease, reducing the possibility of contaminating the sample
- Complete unit consists of 270mm three-ball Snyder column, 500mL flask and 10mL receiving vessel
- Manufactured from WHEATON 33 low extractable borosilicate glass that conforms to USP Type I and ASTM E 438 Type I, Class A requirements

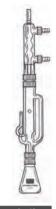


Cat. No.	Description	Qty/Case
297883	Kuderna-Danish Concentrator, Complete	1
Componen	t Parts	
384353	Snyder Column, 270mm, Three-Ball, with 24/40 Clear-Seal™ Joints	1
297825	500mL Flask, with 24/40 Top and 19/22 Bottom Clear-Seal™ Joints	1
297800	10mL Receiving Vessel, with 19/22 Clear-Seal Joint	
	(Graduated 0-1 x 0.1mL; 2-10 x 0.5mL)	1

Micro Soxhlet Extraction Apparatus

With the WHEATON Connection®

- Used for continuous extraction of analytes from a solid into an organic solvent
- WHEATON Connection® eliminates the need for hooks, springs and clamps common to standard ground joint designs
- As the flask containing the solvent is heated, vapors rise in the larger outside tube, enter the water-cooled condenser, and liquate
- When the liquid level in the extractor reaches the top of the bent tube, siphoning action returns the extract-enriched solvent to the flask
- Wetted parts are manufactured from either WHEATON 33 low extractable borosilicate glass that conforms to USP Type I and ASTM E 438 Type I, Class A requirements or PTFE

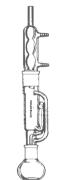


Cat. No.	Description	Qty/Case
415500	Micro Soxhlet Extractor, Complete	1
Component Parts		
415501	85mm Condenser, 24-400 Screw Thread on Bottom	
	and 13-425 Screw Thread on Side	1
415502	Extractor, 24-400 Screw Thread on Top	
	and 20-400 Screw Thread on Bottom	1
125486	WHEATON Connection® 20-400 to 20-400	6
125504	WHEATON Connection® 24-400 to 24-400	6
635134	25mL Erlenmeyer Flask, 20-400 Screw Thread	1
962515	Hose Connector, 13-425	6
W416788	Extraction Thimble, Glass, 15 x 60mm, 170-220µm Porosity	1

Soxhlet Extraction Apparatus

With Standard Taper Ground Joints

- Used for continuous extraction of analytes from a solid into an organic solvent
- As the flask containing the solvent is heated, vapors rise in the larger outside tube, enter the water-cooled condenser and liquate
- When the liquid level in the extractor reaches the top of the bent tube, siphoning action returns the extract-enriched solvent to the flask
- Wetted parts are manufactured from WHEATON 33 low extractable borosilicate glass that conforms to USP Type I and ASTM E 438 Type I, Class A requirements



Cat. No.	Description Qty/Ca	ise
416000	125mL Soxhlet Extractor, Complete	1
416005	250mL Soxhlet Extractor, Complete	1
416010	500mL Soxhlet Extractor, Complete	1
Component	t Parts	
415000	190mm Extractor with 24/40 bottom inner joint and 34/45 top outer joint	1
415005	205mm Extractor with 24/40 bottom inner joint and 45/50 top outer joint	1
415010	250mm Extractor with 24/40 bottom inner joint and 55/50 top outer joint	1
334003	Allihn Reflux Condenser, 34/45	1
334014	Allihn Reflux Condenser, 45/50	1
334025	Allihn Reflux Condenser, 55/50	1
428126	Flat-Bottom Flask, 125mL, 24/40	1
428146	Flat-Bottom Flask, 250mL, 24/40	1
428164	Flat-Bottom Flask, 500mL, 24/40	1

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