## ESS—FOR ALL YOUR ENVIRONMENTAL SAMPLING PRODUCT NEEDS

ESS is your reliable source for quality sample containers cleaned to U.S. EPA procedures for the analysis of soil, water and wastewater. ESS also offers:

- CapSure<sup>™</sup> economical leak-proof HDPE
- PrePreserved® containers for all methods
- DropuleTM and Easy Pour<sup>TM</sup> Field Preservatives
- Ultra Pure Blank Water DI+TM
- · Sterile Bacti Bottles
- Tedlar® Air Sampling Bags
- Polyethylene and Teflon® Bailers
- Soil Sampling Tools for Method 5035
- Cold Ice® Refrigerant, FoamPac<sup>TM</sup> and Bubble Wrap Bags
- Low Level Mercury Bottles (available "double bagged")
- TOC Vials, Bottles and Jars
- · Labels and Custody Seals
- Custom Sample Kits
- · Next-Day Service



NORTH AMERICAN HEADQUARTERS (800) 233-8425 OAKLAND, CALIFORNIA

(510) 614-8312

(510) 614-8549-Fax

(800) 625-6095 Fax

## www.essvial.com

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**ON-TIME PRODUCTS** FOR ENVIRONMENTAL SAMPLING & ANALYSIS



#### **ENVIRONMENTAL SAMPLING SUPPLY**

Environmental Sampling Supply is the leader in products for environmental sampling, committed to the highest level of quality and service. ESS is one of the few container suppliers who cleans to the U.S. EPA procedures, publishes the procedures and makes our facility available to customers.

- ESS has independent, state-certified, analytical laboratories
  perform quality control analyses on our precleaned sample containers to ensure credible sample data. ESS is the only container
  supplier to offer actual lab data to support our certification.
- ESS has developed a dedicated distribution network throughout North America to assure that sensitive sample containers are stored in contaminant-free environments for just-in-time delivery.
- ESS has a completely automated production system to provide consistently cleaned products in a controlled environment.
- ESS offers complete field-ready PrePreserved®containers to save our customers time and money and provide strict chain of custody.
- ESS has independent certified labs analyze PrePreserved®
   chemicals and makes the data available on request.
- ESS provides "LowBleed" Septa in all our EPA vials.
- **ESS** offers Ultra Pure Blank Water DI+<sup>TM</sup> for use in field and laboratory applications.
- **ESS** offers soil sampling tools for U.S. EPA Method 5035.
- **ESS** offers custom container preparation, QC testing and sampling kits for special and unique projects.
- ESS has Low Level Mercury (Method 1631) Bottles available "double bagged."
- ESS has worldwide shipping capabilities and extensive international distribution. Visit our website for our list of international distributors.
- ESS developed CapSure™ economical, leakproof HDPE oblong wide mouth

## THE ESS PHILOSOPHY

To provide the highest quality, highest integrity sample container products and the most expedient service in the marketplace.



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Caps, liners and Septa available separately. Contact Customer Service.

## **CONTAINER PREPARATION & CLEANING PROCEDURES**

#### **ESS CONTAINER CLASS DEFINITIONS**

**UC CLASS** UNCERTIFIED<sup>TM</sup> containers with Teflon®-lined\*

closures attached. UC Class includes ESS

sample label.

**PC CLASS** PRECLEANED CERTIFIED<sup>TM</sup> containers with

Teflon®-lined\* closures attached.

PC Certification is provided with each case.

PC Class includes ESS sample label.

**QC CLASS** 

QUALITY CERTIFIED<sup>TM</sup> precleaned containers with Teflon®-lined\* closures attached are analyzed by independent, certified laboratories. QC Certification is available on our website. QC Class includes ESS sample label with printed lot number.

ESS' cleaning procedures are based on the U.S. EPA "Specifications and Guidance for Contaminant-Free Sample Containers"

#### PROCEDURE 1

Container preparation includes nonphosphate detergent washing, multiple tap water and ASTM Type I deionized water rinses, and 1:1 HNO<sub>3</sub> (Nitric Acid) and solvent rinses. Containers are oven-dried.

## **PROCEDURE 2**

Container preparation includes nonphosphate detergent washing, multiple tap water and ASTM Type I deionized water rinses. Containers are oven-dried.

#### PROCEDURE 3

Container preparation includes nonphosphate detergent washing, multiple tap water and ASTM Type I deionized water rinses, and 1:1 HNO<sub>3</sub> (Nitric Acid) rinses. Containers are oven-dried.

#### **PROCEDURE 4**

Container preparation includes nonphosphate detergent washing, multiple tap water and ASTM Type I deionized water rinses, and 1:1  $\rm H_2SO_4$  (Sulfuric Acid) rinses. Containers are oven-dried.

#### **LOW PARTICLE PROCEDURE**

Container preparation to Procedure 3 with oven drying in Low Particle environment. Containers are available double-bagged.

#### **ESS CUSTOM**

Containers are prepared per customer specifications to meet unique project needs.

RECOMMENDED FOR EXTRACTABLE ORGANIC, SEMIVOLATILE AND PESTICIDE ANALYSIS.

RECOMMENDED FOR PURGEABLE VOLATILE

RECOMMENDED FOR METAL, CYANIDE, SULFIDE AND FLUORIDE ANALYSIS.

RECOMMENDED FOR NITRATE/NITRATE ANALYSIS.

RECOMMENDED FOR LOW LEVEL MERCURY 1631, METALS 1669 AND LOW PARTICLE COUNT APPLICATIONS.

RECOMMENDED FOR YOUR SPECIAL PROJECTS.

<sup>\*</sup>Not all HDPE/LDPE products are available with Teflon®-lined closures. Please refer to the NOTES section of the pricing page for further information. Teflon® is a registered trademark of E.I. DuPont.





Since 1988, ESS has made great advances in the precleaned sample container industry. Nowhere is the ESS commitment more evident than with the development and implementation of our Automated Bottle Cleansing System\*, the ABCS 9200. This custom designed, patented, state-of-the-art system is the only one of its kind in the world.

The decision to automate the production process comes from the extensive experience of the ESS staff, dating back to the industry's earliest years. To be a viable asset to the environmental industry, automation is paramount. No other company in the sample container field is making this kind of commitment to its customers.

Using only the highest grade materials, the ABCS 9200 was designed and built with zero production downtime in mind. This system allows complete flexibility in order to meet our customers' special cleaning needs.

\*Patent #5,409,545

## You Benefit From Our Commitment By:

- CONSISTENCY in both the quality and production of the ESS product. The computer-guided ABCS 9200 eliminates virtually all variables related to manual/semi-automated production operations.
- PRODUCT AVAILABILITY is not an issue with ESS. The ABCS 9200, along with our regional distribution facilities, allows ESS increased production volumes and storage capabilities to easily service our U.S. and foreign markets.
- EFFICIENCY in source reduction of the water and chemical needs in each cleaning procedure. Increased efficiency makes ESS your most competitive source for high quality precleaned sample containers.
- CLEANING FOR CHEMICAL PACKAGING ESS can clean your unique containers for chemical packaging applications. ESS cleaning removes dust, film, mold agents and particles to the submicron level.

## **ESS INNOVATION**

ESS researched and developed its ABCS 9200 to fully automate the U.S. EPA cleaning rocedures and to eliminate the errors found in manual and semi-automated production line This system ensures that only the highest quality products are delivered to ESS customers.











1-800-233-8425

## THE ESS ADVANTAGE

ESS is an innovator in environmental sampling, offering quality control and chain of custody features that are unique to the industry and provide your company with an analytical advantage.

## **QUALITY CONTROL**

**INDEPENDENT CERTIFICATION:** ESS was the first sample container company to have independent certified laboratories analyze Quality Certified<sup>TM</sup> Class and PreCleaned Certified<sup>TM</sup> Class containers, and ESS is the ONLY company to offer actual test results upon request.

**INTEGRITY:** ESS washes to U.S. EPA procedures, publishes the procedures, and makes its facility available to its customers. ESS lot analyzes its *PrePreserved*® chemicals and makes the data available upon request.

**LOWER DETECTION LIMITS:** ESS was the first and is the ONLY container supplier to test below drinking water levels, and ELAP levels, providing the lowest detection limits for organic and inorganic parameters.

#### **DIRECT DISTRIBUTION AND DEDICATED WAREHOUSES:**

ONLY ESS sample containers are stored in ESS warehouses. ESS does not store its containers with thousands of other laboratory items such as chemicals, solvents or fuels. With our direct distribution there is only one step in the chain of custody that has to be accounted for: shipment from ESS to your facility. There is no tighter or more sensitive chain of custody in the industry.

**EPA CERTIFICATION:** ESS PC Class containers are provided with certification that exceeds U.S. EPA standards for precleaned containers.

**PACKAGING:** All ESS PreCleaned Certified<sup>TM</sup> and Quality Certified<sup>TM</sup> containers are sealed with our unique custody tape and vials are shrink-wrapped to ensure integrity and quality. A ship date is included to monitor shelf life.

**LOW BLEED SEPTA:** Standard on all 20, 40 and 60 mL glass vials.

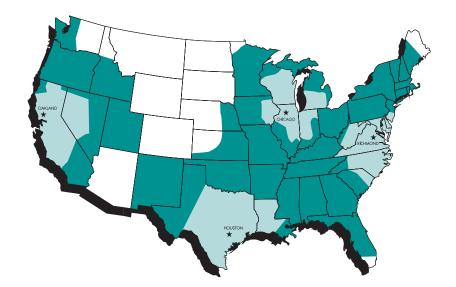
**EXPERIENCE:** The ESS staff has more experience in the precleaned sample container field than any company in the industry.

#### Registered Marks and Trademark disclaimers:

Teflon® and Delrin® are registered trademarks of E.I. DuPont. Tedlar® is a registered trademark of E.I. DuPont. Cold Ice® is a registered trademark of Cold Ice, Inc. Nalgenc® is a registered trademark of Nalge Nunc International. Terra Core™ is a trademark of En Novative Technologies, Inc. Ziploc® is a registered trademark of S. C. Johnson & Son, Inc. Sleeve-It® is a registered trademark of Richter. Zebra® is a registered trademark of ZIH Corp. PrePreserved® is a registered trademark of ESS. Dropule™, Easy Pour™, Ultra Pure Blank Water DI+™, FoamPac™, UnCertified™, PreCleaned Certified™, Quality Certified™, Lock № Load™, Core № One™ are trademarks of ESS. Tuff Tainer® is a registered trademark of Flambeau Inc., Milli-Q® is a registered trademark of Millipore Corp.



#### **OPERATIONAL ADVANTAGES**



1-DAY DELIVERY ZONE
2-DAY DELIVERY ZONE
3-DAY DELIVERY ZONE

ESS Distribution Locations:
Oakland, CA
Houston, TX
Richmond, VA
Chicago, IL

\*Metro Phoenix: 2-day UPS Ground

**SAME-DAY SHIPPING** – Most orders ship the same day they are placed. ESS can ship *PrePreserved*® containers faster than anyone. Large orders can be split for just-in-time delivery.

NATIONAL DIRECT DISTRIBUTION – ESS has distribution centers in four strategic locations: Richmond, VA; Chicago, IL; Houston, TX; and Oakland, CA. ESS employees handle your orders from beginning to end. Our "hands-on" control of orders allows for immediate response for tracking and updating of the status of any order. We can service 85% of the United States in one to two days by UPS Ground.

**TIME ZONE/LATE-IN-THE-DAY ADVANTAGE** – Because our headquarters are in California (Pacific Time Zone), we can take late-in-the-day orders from the Eastern and Central Time Zones. For example, an order placed at 5:00 pm EST can go out for next-morning delivery.

**COMPLETE CUSTOMER SERVICE** – ESS has developed a philosophy of Complete Customer Service. With ESS, your orders receive the full attention of a dedicated Customer Service Representative, available as early as 7:00 am PST, who will take your order, answer any questions and see to it that your order is processed in a timely manner.

CUSTOM ORDER FORMS – We can develop a custom fax order form for your firm including the specific containers you use. Just fill in the amount you want and fax the order form using our toll-free fax line at (800) 625-6095. A confirmation number will be faxed back to confirm that we received your order. ESS will create custom order forms for each of your locations to allow for easy and convenient ordering by fax.

**DROP SHIPPING** – ESS can drop ship orders anywhere in the United States or around the world. There are no additional fees for drop shipping.

**COST SAVINGS** – Shipping orders directly to your clients from our Regional Warehouses can mean substantial cost savings for your company.

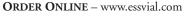
"NO BREAKAGE" GUARANTEE – If glass containers break in transit, we replace them free of charge. The quality of our packing allows us to make this guarantee. Parcel shipments of glass containers are "Double Packed" with three-ply paper, a clean alternative to styrene peanuts. This excludes our Ultra Pure Blank Water Containers.

PrePreserved® CONTAINERS – Let ESS preserve your containers and save you time and money. ESS introduced this service in 1990, and now over half of all orders placed with ESS include PrePreserved® containers. This can be a great help when we ship directly to your client. All they have to do is take the sample. ESS meets DOT/CFR/IATA/ICAO approval for packaging PrePreserved® containers.

CHAIN OF CUSTODY – QC class containers include a certificate with the lot number. A date stamp is on each case of PC Class and QC Class containers to monitor shelf life. PC and QC are also sealed with our unique custody tape and vials are shrink-wrapped.

ESS has worldwide shipping capabilities. We have distributors in the UK, France, Italy, Japan, South Korea, Taiwan, Australia, Mexico, Brazil, Singapore and Spain.

ESS accepts VISA, MasterCard and American Express.











# **BOROSILICATE GLASS VIALS & HCL VIALS**

Туре	Capacity	Product	Closure	Quantity	UC	PC	QC
	oz.	Number	Size	Per Case	Class	Class	Class
OPEN TOP 60 mL CLEAR 40 mL CLEAR 25 mL CLEAR 20 mL CLEAR	2.00 1.35 0.84 0.67	7260-0300 0040-0300 0025-0300 0020-0300	24-414 24-414 24-414 24-414	72 72 72 72 72	\$86.40 \$72.00 \$73.44 \$73.44	\$93.60 \$79.20 \$80.64 \$80.64	\$102.24 \$87.84 \$89.28 \$89.28
60 mL amber	2.00	7260-0400	24-414	72	\$93.60	\$100.80	\$109.44
40 mL amber	1.35	0040-0400	24-414	72	\$75.60	\$82.80	\$91.44
CLOSED TOP 40 mL CLEAR 20 mL CLEAR 40 mL AMBER	1.35 0.67 1.35	0040-0310 0020-0310 0040-0410	24-414 24-414 24-414	72 72 72	\$72.00 \$73.44 \$75.60	\$79.20 \$80.64 \$82.80	\$87.84 \$89.28 \$91.44

# PrePreserved® GLASS VIALS

Туре	Capacity oz.	Product Number	Closure Size	Quantity Per Case	UC Class	PC Class	QC Class
0.5 mL of HCl 40 mL CLEAR OPEN-TOP 40 mL AMBER OPEN-TOP	1.35 1.35	4050-0300 4050-0400	24-414 24-414	72 72	\$79.20 \$82.80	\$86.40 \$90.00	\$95.04 \$98.64
0.25 mL of HCl 40 mL clear open-top 40 mL amber open-top	1.35 1.35	4025-0300 4025-0400	24-414 24-414	72 72	\$79.20 \$82.80	\$86.40 \$90.00	\$95.04 \$98.64

Prepared to Procedure 2

Туре	Product Number	Quantity Per Case	Price Per Case
VIAL BOX WITH PARTITION	4072-3550	20	\$3.00
TEFLON®/SILICONE SEPTA 22mm-125" thick "low bleed"	0125-1850-72	72	\$18.00
OPEN TOP CLOSURE 24-144	G2414-1800-72	72	\$7.20
OPEN TOP CLOSURE w/Teflon®/Silicone Septer	GOT2414-PF125	72	\$.40

NOTES: All containers are supplied with a Teflon® silicone Septa closure attached.

Teflon® is a registered trademark of E.I. DuPont.

Septa is 0.125" thick.





## **SEPTA BOTTLES & GLASS VIALS**

## **VIALS IN FOAMPAC™**

Туре	Capacity	Product	Closure	Quantity	UC	PC	QC
	oz.	Number	Size	Per Case	Class	Class	Class
40 mL CLEAR OPEN-TOI	1.35	7240-0300	24-414	72	\$86.40	\$93.60	\$102.24
40 mL CLEAR OPEN-TOI		1240-0300	24-414	12	\$14.40	\$15.60	\$17.04
10 mL CLEAR CLOSED-T		0010-0311	15-425	24	\$27.84	\$30.24	\$33.12
40 mL amber open-to		7240-0400	24-414	72	\$90.00	\$97.20	\$105.84
40 mL amber open-to		1240-0400	24-414	12	\$15.00	\$16.20	\$17.64

#### **SEPTA BOTTLES**

Туре	Capacity mL	Product Number	Closure Size	Quantity Per Case	UC Class	PC Class	QC Class
CLEAR WIDE MOUTH 8 OZ. TALL	250	0250-0610	58-400	12	\$26.76	\$29.16	\$35.16
8 oz. short 4 oz. short 2 oz. short	250 125 60	0250-0615 0125-0615 0060-0615	70-400 58-400 53-400	12 24 24	\$32.52 \$49.20 \$46.80	\$34.92 \$54.00 \$51.60	\$40.92 \$66.00 \$63.60
Amber Wide Mouth					,	,,,,,,,,	
32 oz. packer 16 oz. packer 8 oz. short	950 500 250	0950-0640 0500-0640 0250-0655	53-400 53-400 70-400	12 12 12	\$37.20 \$34.80 \$35.52	\$39.60 \$37.20 \$34.92	\$45.60 \$43.20 \$40.92
4 OZ. SHORT  AMBER BOSTON ROUND	125	0125-0655	58-400	24	\$49.20	\$54.00	\$66.00
34 oz. 8 oz.	1000 250	1000-0650 0250-0650	33-430 24-414	12 12	\$32.88 \$19.20	\$35.28 \$21.60	\$41.28 \$27.60
4 OZ.  CLEAR BOSTON ROUND	125	0125-0650	24-414	24	\$36.24	\$41.04	\$53.04
8 OZ.	250	0250-0600	24-414	12	\$19.20	\$21.60	\$27.60

## **ECONOPAC VIALS**

Туре	Capacity oz.	Product Number	Closure Size	Quantity Per Case	UC Class
40 mL CLEAR OPEN-TOP	1.35	BP40-0300-uc	24-414	144	\$95.04
40 mL AMBER OPEN-TOP	1.35	BP40-0400-uc	24-414	144	\$103.68
40 mL CLEAR CLOSED-TOP	1.35	BP40-0310-UC	24-414	144	\$95.04
40 mL AMBER CLOSED-TOP	1.35	BP40-0410-UC	24-414	144	\$103.68
40 mL clear vial no closure	1.35	0040-0399-UA		144	\$80.64

## **TOC VIALS**

Туре	Product	Closure	Quantity	QC
	Number	Size	Per Case	Class
40 mL clear open-top/.125" Septa	TOC040-0300	24-414	72	\$87.12
40 mL clear open-top/.068" Septa	TOC040-w303	24-414	72	\$87.12
40 mL clear "dust cover" top/.125" Septa	TOC040-w3DC	24-414	72	\$91.48

NOTES: .068" Septa is bonded into a white OT closure. TOC Lab reporting limit is 10ppb/lot acceptance of <50ppb.

#### **PCB VIALS**

Туре	Product	Closure	Quantity	PC
	Number	Size	Per Case	Class
40 mL CLEAR VIAL/CT/2 GAUZE PADS	0040-0311-РС	24-414	72	\$136.80
40 mL CLEAR VIAL/CT/2 GAUZE PADS	1240-0311-РС	24-414	12	\$24.60

## **GRADUATED VIALS**

Туре	Product	Closure	Quantity	UC	PC	QC
	Number	Size	Per Case	Class	Class	Class
40 mL CLEAR OPEN-TOP WITH 30 mL FILL LINE	0040-0330	24-414	72	\$87.12	\$94.32	\$102.96

NOTES: 24 mm-414 open-top and closed-top closures are made of polypropylene material. Septa available in different thicknesses (.125" is standard). Hexane is separate; see page 15..



# **GLASS NARROW MOUTH**



Туре	Capacity mL	Product Number	Closure Size	Quantity Per Case	UC Class	PC Class	QC Class
Amber Boston – Round							
34 OZ. 32 OZ. 16 OZ. 8 OZ. 4 OZ. 2 OZ.	1000 950 500 250 125 60	1000-0150 0950-0150 0500-0150 0250-0150 0125-0150 0060-0150	33-430 33-400 28-400 24-414 24-414 20-400	12 12 12 12 12 24 48	\$22.56 \$22.56 \$21.96 \$15.96 \$28.08 \$53.76	\$27.96 \$27.96 \$24.36 \$18.36 \$32.88 \$63.36	\$33.96 \$33.96 \$30.36 \$24.36 \$44.88 \$87.36
CLEAR BOSTON – ROUND							
32 oz. 16 oz. 8 oz. 4 oz.	950 500 250 125	0950-0100 0500-0100 0250-0100 0125-0100	33-400 28-400 24-414 22-400	12 12 12 24	\$22.56 \$21.96 \$15.96 \$28.08	\$27.96 \$24.36 \$18.36 \$32.88	\$33.96 \$30.36 \$24.36 \$44.88
Amber Jugs							
135 oz. 85 oz.	4000 2500	4000-0250 2500-0250	38-430 38-430	6 6	\$37.92 \$28.32	\$40.92 \$31.32	\$46.92 \$37.32

**NOTES:** All containers are supplied with Teflon®-lined closures. Teflon® is a registered trademark of E.I. DuPont.

Prepared to Procedure 1





CLEAR - TAIL         2.5 gal.         9462         0025-0010         120-400         2         \$54.00         \$56.00         \$60.           128 oz.         3785         3785-0010         110-400         4         \$22.68         \$24.68         \$28.           68 oz.         2000         2000-0010         83-400         6         \$23.94         \$32.468         \$28.           64 oz.         1890         1890-0010         110-400         6         \$27.00         \$30.00         \$36.           32 oz.         950         0950-0010         89-400         12         \$35.52         \$37.92         \$43.           16 oz.         500         0500-0010         63-400         12         \$23.28         \$25.68         \$31.           8 oz.         250         0250-0010         58-400         12         \$18.48         \$20.88         \$26.           4 oz.         125         0125-0010         48-400         12         \$14.52         \$16.92         \$22.           CLEAR - SHORT           1 6 oz.         500         0500-0015         89-400         12         \$27.24         \$29.64         \$35.           8 oz.         250         0250-0015         70-400 <th>C ss</th>	C ss
2.5 gal. 9462 0025-0010 120-400 2 \$54.00 \$56.00 \$60. 128 oz. 3785 3785-0010 110-400 4 \$22.68 \$24.68 \$28. 68 oz. 2000 2000-0010 83-400 6 \$23.94 \$26.94 \$32. 64 oz. 1890 1890-0010 110-400 6 \$27.00 \$30.00 \$30.00 \$36. 32 oz. 950 0950-0010 89-400 12 \$35.52 \$37.92 \$43. 16 oz. 500 0500-0010 63-400 12 \$23.28 \$25.68 \$31. 8 oz. 250 0250-0010 48-400 12 \$18.48 \$20.88 \$22. 84 oz. 125 0125-0010 48-400 12 \$14.52 \$16.92 \$22. \$22. \$22. \$23.28 \$25.68 \$31. \$25.00 \$250.0015 70.400 12 \$18.72 \$21.12 \$27. \$27. \$20. 60 0060-0015 53-400 12 \$18.72 \$21.12 \$27. \$27. \$20. \$20. \$20. \$250. \$250.0050 \$24. \$20. \$24. \$29.52 \$34.32 \$46. \$27.40 \$31. \$20. \$20. \$20. \$250. \$250.0050 \$24. \$20. \$24. \$29.52 \$34.32 \$46. \$27.40 \$31. \$20. \$20. \$20. \$250.0050 \$250.0050 \$25.400 \$24. \$25.40 \$29.52 \$34.32 \$46. \$27.40 \$31. \$20. \$20. \$20. \$250.0050 \$250.0050 \$25.400 \$24. \$25.40 \$29.52 \$34.32 \$46. \$27.40 \$31. \$20. \$20. \$20. \$250.0050 \$250.0050 \$25.400 \$24. \$25.40 \$25.40 \$27.40 \$31. \$25.40 \$25	
128 oz.   3785   3785-0010   110-400   4   \$22.68   \$24.68   \$28.	00
68 oz. 2000 2000-0010 83-400 6 \$23.94 \$26.94 \$32. 64 oz. 1890 1890-0010 110-400 6 \$27.00 \$30.00 \$36. 32 oz. 950 0950-0010 89-400 12 \$35.52 \$37.92 \$43. 16 oz. 500 0500-0010 58-400 12 \$23.28 \$25.68 \$31. 8 oz. 250 0250-0010 48-400 12 \$18.48 \$20.88 \$26. 4 oz. 125 0125-0010 48-400 12 \$18.48 \$20.88 \$26. \$35. 52 \$37.92 \$22. \$36. \$35. 52 \$37.92 \$36. \$35. 52 \$37.92 \$36. \$35. 52 \$37.92 \$36. \$35. 52 \$37.92 \$36. \$35. 52 \$37.92 \$36. \$35. 52 \$37.92 \$36. \$36. \$36. \$36. \$36. \$36. \$36. \$36.	
1890	
32 oz.   950   0950-0010   89-400   12   \$35.52   \$37.92   \$43.     16 oz.   500   0500-0010   63-400   12   \$23.28   \$25.68   \$31.     8 oz.   250   0250-0010   58-400   12   \$18.48   \$20.88   \$26.     4 oz.   125   0125-0010   48-400   12   \$14.52   \$16.92   \$22.     Clear - Short	
16 oz.   500   0500-0010   63-400   12   \$23.28   \$25.68   \$31.     8 oz.   250   0250-0010   58-400   12   \$18.48   \$20.88   \$26.     4 oz.   125   0125-0010   48-400   12   \$14.52   \$16.92   \$22.     Clear - Short	
8 oz.       250       0250-0010       58-400       12       \$18.48       \$20.88       \$26.         4 oz.       125       0125-0010       48-400       12       \$14.52       \$16.92       \$22.         CLEAR - SHORT         16 oz.       500       0500-0015       89-400       12       \$27.24       \$29.64       \$35.         8 oz.       250       0250-0015       70-400       12       \$18.72       \$21.12       \$27.         4 oz.       125       0125-0015       58-400       24       \$30.72       \$35.52       \$47.         2 oz.       60       0060-0015       53-400       24       \$29.52       \$34.32       \$46.         AMBER –         ROUND PACKER       85 oz.       2500       2500-0050       70-400       4       \$25.40       \$27.40       \$31.         42 oz.       1250       1250-0050       70-400       24       \$69.92       \$79.90       \$82.         32 oz.       950       0950-0050       53-400       12       \$34.08       \$36.48       \$42.         16 oz.       500       0500-0050       53-400       12       \$24.48       \$26.88       \$32. <tr< td=""><td></td></tr<>	
Clear - Short	
CLEAR - SHORT  16 oz. 500 0500-0015 89-400 12 \$27.24 \$29.64 \$35. 8 oz. 250 0250-0015 70-400 12 \$18.72 \$21.12 \$27. 4 oz. 125 0125-0015 58-400 24 \$30.72 \$35.52 \$47. 2 oz. 60 0060-0015 53-400 24 \$29.52 \$34.32 \$46.  AMBER - ROUND PACKER  85 oz. 2500 2500-0050 70-400 4 \$25.40 \$27.40 \$31. 42 oz. 1250 1250-0050 70-400 24 \$69.92 \$79.90 \$82. 32 oz. 950 0950-0050 53-400 12 \$34.08 \$36.48 \$42. 16 oz. 500 0500-0050 53-400 12 \$34.08 \$36.48 \$42. 16 oz. 500 0500-0050 53-400 12 \$24.48 \$26.88 \$32. 8 oz. 250 0250-0050 45-400 12 \$17.16 \$19.56 \$25. 4 oz. 125 0125-0050 38-400 12 \$13.68 \$16.08 \$22.	
16 oz.     500     0500-0015     89-400     12     \$27.24     \$29.64     \$35.       8 oz.     250     0250-0015     70-400     12     \$18.72     \$21.12     \$27.       4 oz.     125     0125-0015     58-400     24     \$30.72     \$35.52     \$47.       2 oz.     60     0060-0015     53-400     24     \$29.52     \$34.32     \$46.       AMBER –       ROUND PACKER       85 oz.     2500     2500-0050     70-400     4     \$25.40     \$27.40     \$31.       42 oz.     1250     1250-0050     70-400     24     \$69.92     \$79.90     \$82.       32 oz.     950     0950-0050     53-400     12     \$34.08     \$36.48     \$42.       16 oz.     500     0500-0050     53-400     12     \$24.48     \$26.88     \$32.       8 oz.     250     0250-0050     45-400     12     \$17.16     \$19.56     \$25.       4 oz.     125     0125-0050     38-400     12     \$13.68     \$16.08     \$22.	12
8 oz.       250       0250-0015       70-400       12       \$18.72       \$21.12       \$27.         4 oz.       125       0125-0015       58-400       24       \$30.72       \$35.52       \$47.         2 oz.       60       0060-0015       53-400       24       \$29.52       \$34.32       \$46.         AMBER – ROUND PACKER         85 oz.       2500       2500-0050       70-400       4       \$25.40       \$27.40       \$31.         42 oz.       1250       1250-0050       70-400       24       \$69.92       \$79.90       \$82.         32 oz.       950       0950-0050       53-400       12       \$34.08       \$36.48       \$42.         16 oz.       500       0500-0050       53-400       12       \$24.48       \$26.88       \$32.         8 oz.       250       0250-0050       45-400       12       \$17.16       \$19.56       \$25.         4 oz.       125       0125-0050       38-400       12       \$13.68       \$16.08       \$22.	
8 oz.       250       0250-0015       70-400       12       \$18.72       \$21.12       \$27.         4 oz.       125       0125-0015       58-400       24       \$30.72       \$35.52       \$47.         2 oz.       60       0060-0015       53-400       24       \$29.52       \$34.32       \$46.         AMBER – ROUND PACKER         85 oz.       2500       2500-0050       70-400       4       \$25.40       \$27.40       \$31.         42 oz.       1250       1250-0050       70-400       24       \$69.92       \$79.90       \$82.         32 oz.       950       0950-0050       53-400       12       \$34.08       \$36.48       \$42.         16 oz.       500       0500-0050       53-400       12       \$24.48       \$26.88       \$32.         8 oz.       250       0250-0050       45-400       12       \$17.16       \$19.56       \$25.         4 oz.       125       0125-0050       38-400       12       \$13.68       \$16.08       \$22.	54
2 oz. 60 0060-0015 53-400 24 \$29.52 \$34.32 \$46.  AMBER - ROUND PACKER  85 oz. 2500 2500-0050 70-400 4 \$25.40 \$27.40 \$31. 42 oz. 1250 1250-0050 70-400 24 \$69.92 \$79.90 \$82. 32 oz. 950 0950-0050 53-400 12 \$34.08 \$36.48 \$42. 16 oz. 500 0500-0050 53-400 12 \$24.48 \$26.88 \$32. 8 oz. 250 0250-0050 45-400 12 \$17.16 \$19.56 \$25. 4 oz. 125 0125-0050 38-400 12 \$13.68 \$16.08 \$22.	
AMBER — ROUND PACKER  85 oz. 2500 2500-0050 70-400 4 \$25.40 \$27.40 \$31. 42 oz. 1250 1250-0050 70-400 24 \$69.92 \$79.90 \$82. 32 oz. 950 0950-0050 53-400 12 \$34.08 \$36.48 \$42. 16 oz. 500 0500-0050 53-400 12 \$24.48 \$26.88 \$32. 8 oz. 250 0250-0050 45-400 12 \$17.16 \$19.56 \$25. 4 oz. 125 0125-0050 38-400 12 \$13.68 \$16.08 \$22.	52
ROUND PACKER           85 oz.         2500         2500-0050         70-400         4         \$25.40         \$27.40         \$31.           42 oz.         1250         1250-0050         70-400         24         \$69.92         \$79.90         \$82.           32 oz.         950         0950-0050         53-400         12         \$34.08         \$36.48         \$42.           16 oz.         500         0500-0050         53-400         12         \$24.48         \$26.88         \$32.           8 oz.         250         0250-0050         45-400         12         \$17.16         \$19.56         \$25.           4 oz.         125         0125-0050         38-400         12         \$13.68         \$16.08         \$22.	32
85 oz.         2500         2500-0050         70-400         4         \$25.40         \$27.40         \$31.           42 oz.         1250         1250-0050         70-400         24         \$69.92         \$79.90         \$82.           32 oz.         950         0950-0050         53-400         12         \$34.08         \$36.48         \$42.           16 oz.         500         0500-0050         53-400         12         \$24.48         \$26.88         \$32.           8 oz.         250         0250-0050         45-400         12         \$17.16         \$19.56         \$25.           4 oz.         125         0125-0050         38-400         12         \$13.68         \$16.08         \$22.	
42 oz.         1250         1250-0050         70-400         24         \$69.92         \$79.90         \$82.           32 oz.         950         0950-0050         53-400         12         \$34.08         \$36.48         \$42.           16 oz.         500         0500-0050         53-400         12         \$24.48         \$26.88         \$32.           8 oz.         250         0250-0050         45-400         12         \$17.16         \$19.56         \$25.           4 oz.         125         0125-0050         38-400         12         \$13.68         \$16.08         \$22.	
32 oz.     950     0950-0050     53-400     12     \$34.08     \$36.48     \$42.       16 oz.     500     0500-0050     53-400     12     \$24.48     \$26.88     \$32.       8 oz.     250     0250-0050     45-400     12     \$17.16     \$19.56     \$25.       4 oz.     125     0125-0050     38-400     12     \$13.68     \$16.08     \$22.	40
32 oz.     950     0950-0050     53-400     12     \$34.08     \$36.48     \$42.       16 oz.     500     0500-0050     53-400     12     \$24.48     \$26.88     \$32.       8 oz.     250     0250-0050     45-400     12     \$17.16     \$19.56     \$25.       4 oz.     125     0125-0050     38-400     12     \$13.68     \$16.08     \$22.	
8 oz. 250 0250-0050 45-400 12 \$17.16 \$19.56 \$25. 4 oz. 125 0125-0050 38-400 12 \$13.68 \$16.08 \$22.	48
4 oz.   125   0125-0050   38-400   12   \$13.68   \$16.08   \$22.	88
4 oz.   125   0125-0050   38-400   12   \$13.68   \$16.08   \$22.	56
2 oz. 60 0060-0050 33-400 48 \$47.52 \$57.12 \$81.	08
	12
Amber - Short	
8 oz. 250 0250-0055 70-400 12 \$18.72 \$21.12 \$27.	12
4 oz. 125 0125-0055 58-400 24 \$30.72 \$35.52 \$47.	
French Square	
32 oz 950 0950-0030 53-400 24 \$65.61 \$72.90	
16 oz 500 0500-0030 48-400 40 \$70.00 \$80.50	
8 oz 250 0250-0030 43-400 84 \$117.60 \$135.24	
250 0050 15 100 01 \$117.00 \$155.21	

**NOTES:** All containers are supplied with Teflon $^{\circledR}$ -lined closures. Teflon $^{\circledR}$  is a registered trademark of E.I. DuPont.

Prepared to Procedure 1



# **CAPSURE™ LEAK-PROOF HDPE**



- Engineered seal design of container and closure system
- Premium closure with 720 degree thread engagement and "plug seal" ring for leak-tight performance
- Popular "Oblong" style with wide mouth for easier filling and storage
- Perfect for Environmental/Analytical single use and other packaging applications
- Low gram weight for savings
- Graduation in mL and ounces

MADE IN THE USA

Туре	Capacity mL	Product Number	Closure Size	Quantity Per Case	UC Class	PC Class	QC Class
OBLONG WIDE MOUTH 34 oz 16 oz 8 oz	1000 500 250	1000-1901 0500-1901 0250-1901	44-415 44-415 44-415	12 12 24	\$22.36 \$17.20 \$28.06	\$25.02 \$19.86 \$33.34	\$31.64 \$26.46 \$46.58
OBLONG WIDE MOUTH BULK PACK 34 oz 16 oz 8 oz	1000 500 250	1000-1902 0500-1902 0250-1902	44-415 44-415 44-415	36 60 120	\$67.10 \$86.00 \$140.28	\$75.04 \$99.22 \$166.70	\$94.88 \$132.24 \$232.84

CapSure<sup>TM</sup> is a trademark of ESS



# **HDPE NARROW MOUTH & LDPE CUBITAINERS**



Туре	Capacity	Product	Closure	Quantity	UC	PC	QC
	mL	Number	Size	Per Case	Class	Class	Class
Modern Round – Natural							
32 oz.	950	0950-1000	28-410	12	\$19.56	\$21.96	\$27.96
16 oz.	500	0500-1000	28-410	12	\$17.88	\$20.28	\$26.28
8 oz.	250	0250-1000	28-410	24	\$26.40	\$31.20	\$43.20
4 oz.	125	0125-1000	24-410	48	\$51.36	\$60.96	\$84.96
Cylinder Round – Natural							
34 oz.	1000	1000-1010	28-410	12	\$19.56	\$21.96	\$27.96
16 oz.	500	0500-1010	24-410	12	\$17.88	\$20.28	\$26.28
8 oz.	250	0250-1010	24-410	24	\$26.40	\$31.20	\$43.20
Jug – Natural							
128 oz.	3785	3785-1020	38-400	4	\$9.48	\$11.48	\$15.48
64 oz.	1890	1890-1020	38-400	6	\$13.80	\$15.00	\$18.00
CUBITAINER – NATURAL (LDPE)							
680 oz.	20000	0005-1030	38-400	12	\$90.00	\$102.00	\$126.00
320 oz.	9462	0025-1030	38-400	12	\$78.00	\$90.00	\$114.00
128 oz.	3785	3785-1030	38-400	12	\$54.00	\$66.00	\$90.00
32 oz.	950	0950-1030	38-400	36	\$108.00	\$126.00	\$162.00
SPIGOT		W3800-SPGT	38-400	ea.	\$1.65		

NOTES: HDPE/LDPE narrow-mouth containers are available with F-217 (LDPE foam) liners only. Amber plastic recommended for UV light sensitive sampling. Cubitainers available in LDPE only. HDPE/LDPE narrow-mouth containers available in bulk pack and unassembled.

Prepared to Procedure 3



# **HDPE WIDE MOUTH**





Туре	Capacity	Product	Closure	Quantity	UC	PC	QC
	mL	Number	Size	Per Case	Class	Class	Class
NATURAL – STRAIGHT SIDED							
32 oz.	950	0950-1041	89-400	12	\$19.92	\$22.32	\$28.32
16 oz.	500	0500-1041	89-400	12	\$15.36	\$17.76	\$23.76
8 oz.	250	0250-1041	70-400	24	\$24.96	\$29.76	\$41.76
NATURAL – ROUND PACKER							
128 oz.	3785	3785-1051	110-400	4	\$11.20	\$13.20	\$17.20
68 oz.	2000	2000-1051	100-400	6	\$15.60	\$18.60	\$24.60
32 oz.	950	0950-1051	63-400	12	\$18.96	\$21.36	\$27.36
16 oz.	500	0500-1051	53-400	12	\$14.28	\$16.68	\$22.68
8 oz.	250	0250-1051	48-400	24	\$22.80	\$27.60	\$39.60
4 oz.	125	0125-1051	38-400	48	\$38.88	\$48.48	\$72.48
2 oz.	60	0060-1051	33-400	48	\$35.52	\$45.12	\$69.12
NATURAL – OBLONG							
32 oz.	950	0950-1501	53-400	12	\$21.29	\$23.81	\$30.11
16 oz.	500	0500-1501	43-400	12	\$16.38	\$18.90	\$25.02
8 oz.	250	0250-1501	43-400	24	\$26.71	\$31.75	\$44.35
4 oz.	125	0125-1501	38-400	48	\$46.36	\$56.45	\$81.65

NOTES: HDPE wide-mouth containers are available with F-217 (LDPE foam) liners only. HDPE wide-mouth containers are available in bulk pack and unassembled.

Prepared to Procedure 3



## **NALGENE® HDPE WIDE MOUTH & NARROW MOUTH**



Туре	Capacity mL	Product Number	Closure Size	Quantity Per Case	UC Class	PC Class	QC Class
WM – NAT 68 oz. 32 oz. 16 oz. 8 oz. 4 oz.	2000 950 500 250 125	2000-1060 0950-1060 0500-1060 0250-1060 0125-1060	100-415 63-415 53-415 43-415 38-415	6 12 12 24 48	\$119.40 \$29.28 \$19.32 \$29.04 \$44.64	\$125.40 \$31.68 \$21.72 \$33.84 \$54.24	\$137.40 \$37.68 \$27.72 \$45.84 \$78.24
WM – AMB 32 oz. 16 oz. 8 oz. 4 oz.	950 500 250 125	0950-1260 0500-1260 0250-1260 0125-1260	63-415 53-415 43-415 38-415	12 12 24 48	\$31.92 \$20.64 \$30.96 \$45.60	\$34.32 \$23.04 \$35.76 \$55.20	\$40.32 \$29.04 \$47.76 \$79.20
NM – NAT 32 oz. 16 oz. 8 oz. 4 oz.	950 500 250 125	0950-1070 0500-1070 0250-1070 0125-1070	38-430 28-415 24-415 24-415	12 12 24 48	\$29.28 \$19.32 \$29.04 \$44.64	\$31.68 \$21.72 \$33.84 \$54.24	\$37.68 \$27.72 \$45.84 \$78.24
NM – AMB 32 oz. 16 oz. 8 oz. 4 oz.	950 500 250 125	0950-1270 0500-1270 0250-1270 0125-1270	38-430 28-415 24-415 24-415	12 12 24 48	\$31.92 \$20.64 \$30.96 \$45.60	\$34.32 \$23.04 \$35.76 \$55.20	\$40.32 \$29.04 \$47.76 \$79.20

Leak-proof closures provide best option for ESS PrePreserved® Service.

**NOTES:** Nalgene® containers are supplied with leak-proof closures. Nalgene® is a registered trademark of Nalge Nunc International.

**FLUORINATED** 

Туре	Capacity	Product	Closure	Quantity	LP
	mL	Number	Size	Per Case	Class
<b>WM – NAT</b> 32 oz. 16 oz. 8 oz.	950	3224-1060-FLP	63-415	24	\$300.00
	500	1648-1060-FLP	53-415	48	\$300.00
	250	0872-1060-FLP	43-415	72	\$288.00
NM – NAT 32 oz. 16 oz. 8 oz.	950 500 250	3224-1070-FLP 1648-1070-FLP 0872-1070-FLP	38-430 28-415 24-415	24 48 72	\$300.00 \$315.00 \$288.00



Prepared to

Procedure 3

## DROPULETM BOTTLES

## EASY POUR™ FIELD PRESERVATIVES





#### DROPULE™ FIELD PRESERVATIVE DROPPER BOTTLES

The 15 mL Dropule™ with the leak-proof cap dispenses .05 mL of preservative per drop, which is ideal for preserving containers in the field.

- Additional Features: Color-coded closures for easy chemical identification
  - Washed to ESS' Procedure 2

- Filled with analytical grade chemicals
- Fits perfectly in a Tuff Tainer® polypropylene box for field kits

Туре	Closure	Product	Quantity	Price
	Color	Number	Per Case	Per Case
15 mL of Ascorbic Acid 15 mL of Hydrochloric Acid 15 mL of Nitric Acid 15 mL of Phosphoric Acid 15 mL of Sodium Hydroxide 15 mL of Sodium Thiosulfate 15 mL of Sulfuric Acid 15 mL of Sodium Thiosulfate 15 mL of Sodium Hydroxide/Zinc Acetate 15 mL of Sodium Hydroxide/Zinc Acetate mixture 15 mL Dropper without chemical	White Blue Red White White White Yellow White White White	0015-ASCB-PC 0015-HCL-PC 0015-HNO3-PC 0015-PHOS-PC 0015-NAOH-PC 0015-SOTH-PC 0015-SULF-PC 0015-ZINC-PC 0015-ZNSH-PC 0015-DROP-PC	12 12 12 12 12 12 12 12 12 12 12	\$20.40 \$20.40 \$20.40 \$36.00 \$20.40 \$20.40 \$20.40 \$20.40 \$20.40 \$17.40

#### EASY POUR™ FIELD PRESERVATIVES

ESS' Easy Pour<sup>TM</sup> Field Preservative Vials offer premeasured chemicals in amounts up to 10 mL for easy preservation while in the field. :

- Additional Features: Screw-threaded cap for resealing
  - Washed to ESS' Procedure 2

- Filled with analytical grade chemicals
- Unscrew cap and pour in the entire amount

Description	Product	Quantity	Price
	Number	Per Case	Per Case
10 mL clear borosilicate glass vial with 15 mm-425 white	0010-0311-PC	24	\$31.20 *
Polypropylene/F217-lined closed-top closure (vial only)	0010-0311-QC	24	\$34.08 *
10 mL Vial bulk pac	BP10-0311-PC	298	\$217.54
8 mL Polyvial	0008-0311-QC	24	\$25.56
8 mL Polyvial	0008-0311-PC	24	\$20.28

<sup>\*</sup>Additional cost for chemical preservative. See listing of chemicals for pricing information. PrePreserved® sample containers are custom orders. Please allow additional lead time. Tuff Tainer® is a registered trademark of Flambeau Inc.



## **CHEMICAL PRESERVATIVES**

Туре		Assay	(	Concentration %		mL to 9 mL		5 mL : 9.99 r			0 mL to 5.00 mL
LIQUID  Ammonium Chloride (NH <sub>4</sub> Cl) Ascorbic Acid (C <sub>6</sub> H <sub>8</sub> O <sub>6</sub> ) Hexane (CH <sub>3</sub> (CH <sub>2</sub> ) <sub>4</sub> CH <sub>3</sub> ) Hydrochloric Acid (HCl) Mercuric Chloride (HgCl <sub>2</sub> ) Nitric Acid (HNO <sub>3</sub> ) Phosphoric Acid (H <sub>3</sub> PO <sub>4</sub> ) Sodium Bisulfate (NaHSO <sub>4</sub> H <sub>2</sub> O) Sodium Hydroxide (NaOH) Sodium Hydroxide/Zinc Acetate Sodium Sulfite (Na <sub>2</sub> SO <sub>3</sub> ) Sodium Thiosulfate (Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ) Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ) Zinc Acetate (Zn(CH <sub>2</sub> COO) <sub>2</sub> )		99.6% 99.7% 99.1% 36.5-38% 99.5% 70-71% 75-78% 35.4% 50% 99.3% 99.5% 95-98% 100%	10 10 1: 10 1: 1: 10 10 1: 10 10	0 g/1000 mL 1 1 0 g/1000 mL 00%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	0.20 0.20 0.20 0.20 0.35 0.20 0.20 0.20 0.20 0.20 0.20 0.20		\$0.30 \$0.30 \$0.30 \$0.30 \$0.45 \$0.30 \$0.30 \$0.30 \$0.30 \$0.30 \$0.30			\$0.40 \$0.40 \$0.40 \$0.40 \$0.55 \$0.40 \$1.00 \$0.40 \$0.40 \$0.40 \$0.40 \$0.40 \$0.40 \$0.40 \$0.40 \$0.40
Туре		Assay	(	Concentration %		mg to 99 mg		16.0 mg			.00 mg to 9.99 mg
DRY Ammonium Chloride (NH <sub>4</sub> Cl) Ascorbic Acid (C <sub>6</sub> H <sub>8</sub> O <sub>6</sub> ) Mercuric Chloride (HgCl <sub>2</sub> ) Potassium Dichromate (K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> , Sodium Bisulfate (NaHSO <sub>4</sub> H <sub>2</sub> O) Sodium Sulfite (Na <sub>2</sub> SO <sub>3</sub> ) Sodium Thiosulfate (Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ) Zinc Acetate (Zn(CH <sub>2</sub> COO) <sub>2</sub> )		99.6% 99.7% 100% 99.5% 35.4% 99.3% 99.5% 100%		100% 100% 100% 100% 100% 100% 100% 100%	\$0 \$0 \$0 \$0 \$0 \$0	0.30 0.30 0.45 0.30 0.30 0.30 0.30		\$0.40 \$0.40 \$0.55 \$0.40 \$0.40 \$0.40 \$0.40	•		\$0.50 \$0.50 \$0.65 \$0.50 \$0.50 \$0.50 \$0.50 \$0.50 \$0.50
Туре	Assay	Concentratio	n %	0-4 mL	5-9 mL	10-1	4 mL	15-19 n	nL 2	0-24 mL	25-30 mL
OTHER CHEMICALS Methanol (CH <sub>3</sub> OH) Trisodium Phosphate (NA <sub>3</sub> PO <sub>4</sub> 12H <sub>2</sub> O) Trisodium Phosphate (NA <sub>3</sub> PO <sub>4</sub> 12H <sub>2</sub> O) Sulfamic Acid (NH <sub>2</sub> SO <sub>3</sub> H)	99.9% 98.0% 98.0% 99.3%	100% 400 g/1000 s 400 mg 1 gram		\$0.75 \$0.25 \$0.50 \$0.65	\$0.90	\$1	.20	\$1.50		\$1.80	\$2.10
Туре	Assay	Concentratio	n %	0-1 mL	1-2 n	nL	2-	3 mL	3-4	mL	4-5 mL
Monochloroacetic Acid (C <sub>2</sub> H <sub>3</sub> C1O <sub>2</sub> ,C <sub>2</sub> H <sub>3</sub> KO <sub>2</sub> ) Chloroacetic Acid/Potassium Acetate Buffer	99%	100%		\$0.70	\$1.20	)	\$	51.70	\$2.3	30	\$2.80

## **LUST PRESERVATIVE (GRO/DRO)**

Туре	Product	Quantity	Price
	Number	Per Case	Per Case
25 mL purge and trap grade Methanol in 40 mL amber CT vial	0040-0490 PC	12	\$36.00

## AK101 SURROGATED METHANOL (Alaska Gasoline in Soil Method AK101)

Туре	Concentration of BFB	Product Number	Quantity Per Case	Price Per Case
25 mL purge and trap grade Methanol/BFB in 40 mL CCT Vial 25 mL purge and trap grade Methanol/BFB in 40 mL CCT Vial	2.5 ppb	0040-0395 PC	12	\$39.00
	.80 ppb	0040-0397 PC	12	\$39.00

NOTES: Refer to pages 24 and 25, "Reference Guide to Field Sampling," for recommended container types. **PrePreserved**® containers are custom orders. Please allow additional lead time. Chemicals are mixed with ESS Ultra Pure Blank Water D1+<sup>76</sup> (see page 16). Other preservatives available upon request and may require a lead time of 2 to 3 weeks.



## **ULTRA PURE BLANK WATER DI+™**



#### **ULTRA PURE BLANK WATER DI+TM**

Highest purity water commercially available. UPBW DI+ incorporates full deionization filtration and UV sterilizing. Second filtration through Millipore, Milli-Q® system with final boil and purge.

\*\*TRIP BLANKS\*\*

Part #	Part # Description		Price Per Case
1000-0150-BW	1 L bottles	4/case	\$37.00
4000-0250-BW	4 L bottles	4/case	\$72.00
0005-1035-BW	20 L LDPE cube	1/case	\$40.00
7240-0300-BW	40 mL COT vial	72/case	\$183.60
7240-0400-BW	40 mL AOT vial	72/case	\$187.20

Part #	Description	Quantity Per Case	Price Per Case
7240-0300-TB	40 mL clear vial/Septa	72/case	\$183.60
1240-0300-TB	40 mL clear vial/Septa	12/case	\$33.60
7240-0400-TB	40 mL amber/Septa	72/case	\$187.20
1240-0400-TB	40 mL amber/Septa	12/case	\$34.20

- APPLICATIONS: Ideal for organic, inorganic or HPLC applications.
- **CONVENIENCE:** Superb quality for both field and lab applications.
- PACKAGING: UPBW is packaged into ESS PreCleaned CertifiedTM containers for added integrity; Teflon® silicone closures prevent leakage.
- CERTIFICATION: Analyzed to drinking water levels for both volatile organic and inorganic parameters.
- TRIP BLANKS: PrePreserved® trip blanks extend holding times to 14 days; perfect for emergency field projects.

Recommended six-week shelf life, 0005-1035-BW includes spigot. Teflon® is a registered trademark of E.I. DuPont. Milli-Q® is a registered trademark of Milipore Corp.



## **BACTI BOTTLES & AIR SAMPLING BAGS**







## **BACTI BOTTLES**

The 120 mL wide-mouth polypropylene container is ideal for biological and microbiological testing of water.

- 53 mm diameter for easy sampling
- "O-ring" cap to prevent leakage
- Graduations for accurate measurements
- Gamma-irradiated processing
- High clarity and shatter resistant polypropylene
- Sterile tab label for container integrity

Туре	Product Number	Per Case	Price Per Case
120 mL polypropylene container with Sodium Thiosulfate tablet (110 mg tablet/10 mg ai)*	0125-2052-SP	75	\$31.50
BULK PACK	B125-2052-SP	300	\$126.00
120 mL polypropylene container without Sodium Thiosulfate tablet	0125-2053-SP	75	\$27.00
BULK PACK	B125-2053-SP	300	\$108.00

<sup>\*(10</sup> mg of Sodium Thiosulfate neutrilizes approximately 7 mg of residual chlorine)

## **TEDLAR® AIR SAMPLING BAGS\***

- Features: Low permeability
  - Unique seam construction for added strength
  - LowBleed Septa (3 mm septa port opening)
  - 10 bags per case

- No chemical reaction with the sample
- Lot certification with precleaned components (Method T.0.14)
- Recommended max psi 17.7

Volume	Product Number	Dimension	Price Per Case
0.5 L	0735-7000-GD	3.5" x 7"	\$100.00
1 L	0707-7000-GD	7" x 7"	\$112.00
3 L	0912-7000-GD	9" x 12"	\$132.00
5 L	1212-7000-GD	12" x 12"	\$160.00
10 L	1219-7000-GD	12" x 19"	\$180.00

<sup>\*</sup>Valve stem 3/16" OD.



Tedlar® is a registered Trademark of E.I. DuPont.

# 5035 PrePreserved® VIALS

ESS, the first company to offer *PrePreserved*® containers, offers vials preserved for Method 5035.

Vials are available with:

- Sodium Bisulfate\* for Low Concentration Testing
- Methanol for High Concentration Testing
- Magnetic Stir Bars
- Tare Weight on Attached Label
- ESS LowBleed Septa
- Graduation in mL
- Welded CT Septa for Methanol Extended Shelf Life



Description	Product	Quantity	Price
	Number	Per Case	Per Case
40 mL Clear Open-Top Vial with Septa, 5 mL of a 20% Solution of Sodium Bisulfate, One (1) 12 mm x 4 mm PTFE Stir Bar, Apply Labels, Weigh and Record	4039-5035-PC	72	\$223.20
	4039-5035-QC	72	\$231.84
40 mL Clear Open-Top Vial with Septa, 5 mL of a 20% Solution of Sodium Bisulfate, One (1) 12 mm x 4 mm PTFE Stir Bar,	4038-5035-PC	72	\$183.60
	4038-5035-QC	72	\$192.24
40 mL Clear Open-Top Vial with Septa,	4030-5035-PC	72	\$165.60
One (1) 12 mm x 4 mm PTFE Stir Bar,	4030-5035-QC	72	\$174.24
40 mL Clear Open-Top Vial,	4028-5035-PC	72	\$108.00
Apply Labels, Weigh and Record	4028-5035-QC	72	\$116.64
40 mL Clear Open-Top Vial with Septa, 5 mL of Ultra Pure Blank Water™	4020-5035-PC	72	\$216.00
One (1) 12 mm x 4 mm PTFE Stir Bar, Apply Labels, Weigh and Record	4020-5035-QC	72	\$224.64
40 mL Clear Closed-Top Vial, 5 mL of Methanol,	4006-5035-PC	72	\$187.20
Apply Labels, Weigh and Record	4006-5035-QC	72	\$195.84
40 mL Clear Closed-Top Vial in FoamPac <sup>TM</sup> ,	4035-5035-PC	12	\$34.20
10 mL of Methanol, Apply Labels, Weigh and Record	4035-5035-QC	12	\$35.64
40 mL Clear Closed-Top Vial in FoamPac <sup>TM</sup> ,	4005-5035-PC	12	\$32.40
5 mL of Methanol, Apply Labels, Weigh and Record	4005-5035-QC	12	\$33.84
40 mL Clear Open-Top Vial with Septa, 5 mL of a 20% Trisodium Phosphate One (1) 12 mm x 4 mm PTFE Stir Bar,	4022-5035-PC	72	\$227.56
	4022-5035-QC	72	\$239.04
40 mL Clear Open-Top Vial with Septa, 5 mL of Methanol*, Apply Labels, Weigh and Record	4006-OT35-PC	72	\$187.20
	4006-OT35-QC	72	\$195.84
40 mL Clear Open-Top Vial in FoamPac™,	4035-OT35-PC	12	\$34.20
10 mL of Methanol, Apply Labels, Weigh and Record	4035-OT35-QC	12	\$35.64
PTFE Disposable Stir Bar 3/16" (4 mm) Diameter by 1/2" (12 mm) Length	FDBBAR-0412	100	\$70.00

Other combinations of preservative, Stir Bar and recorded weight available. Contact ESS Customer Service for information or visit our Website: www.essvial.com.

NOTES: 40 mL Open-Top Vials feature ESS LowBleed Septa.

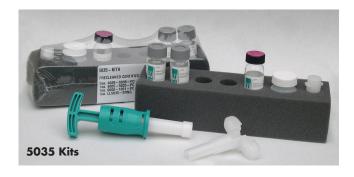
\*Sodium Bisulfate Solution is 1000 mL of ESS UPBW mixed with 200 grams of NAHSO4 H2O.



<sup>\*</sup>Methanol in Open-Top rec. 30 day shelf life

## **5035 SOIL SAMPLING TOOLS & KITS**







## ESS LOCK N' LOAD™ HANDLES & SYRINGES

The easiest way to collect undisturbed, measured soil cores for field preservation techniques for EPA Method 5035.

- Handle locks at 5 and 10 gram settings with one easy turn
- Beveled-edge syringe is stronger then cut syringes and fits in the neck of 40 mL glass vials neck of 40 mL glass vials
- Turn handle and push to dispense soil into the vial.
   Soil dispensing is done without having to remove the syringe
- · Strong, accurate, easy and economical

Lock N' Load<sup>TM</sup> Handles and Syringes can also be used in the lab. Great for subsampling from brass sleeves or soil jars to 40 mL vials for auto-sampler extraction.

Description	Product Number	Quantity Per Case	Price Per Case
LOCK N' LOAD <sup>TM</sup> 5035 SOIL HANDLE	LL5035HNDL	1	\$15.00
LOCK N' LOAD™ 5035 SOIL SYRINGE	LL5035SRNG	50	\$75.00
5 GRAM 5035 SOIL CORE (CORING TOOL/INTEGRATED HANDLE)	SC5035TOOL	100	\$150.00

Description	Product Number	Quantity Per Case	Price Per Case
5035 SAMPLE KIT (INCLUDES ITEMS BELOW)  • TWO 4039-5035-PC VIALS (COT/5ML SBS/SB/W&L)  • ONE 4005-5035-PC VIALS (CCT/5ML METH/W&L)	5035-KITA	1	\$12.00
<ul> <li>ONE 0060-1051-PC VIALS (2 OZ. HDPE WM)</li> <li>ONE LL5035SRNG (LOCK N' LOAD<sup>TM</sup> SOIL SYRINGE)</li> <li>(LL5035HNDL SOLD SEPARATELY)</li> </ul>		e including options v @ www.essvial.com	vith 5 gr. Soil Core

## ESS LOCK N' LOADTM HANDLE & SYRINGE INSTRUCTIONS FOR USE/S.O.P.

For taking field samples or sub-sampling in the lab:

- Insert Lock N' Load™ Syringe into Lock N' Load™ Handle at base opening. Turn the locking portion of the syringe into the 0 gram setting.
- 2. Remove end cap from the Lock N' Load™ Syringe.
- 3. Position the Lock N' Load™ Handle to the desired soil sample volume (5 or 10 grams)\*. To do this, slide the slot portion of the handle down the fitted track, then turn the handle 1/4 turn to the right at the desired setting.
- Push the syringe into the soil until the plunger portion of the syringe makes contact with the base of the Lock N' Load™ Handle.
- Transfer the soil from the syringe into a 40 mL vial\*\* by turning the Lock N' Load™ Handle 1/4 turn to the left (back to the fitted track) and pushing down.
- 6. Cap the vial and store the sample at 4° C until time of analysis.

NOTES: \* USEPA Method 5035 recommends 5 grams of soil for low level analysis (with 5 mL of sodium solution) and 10 grams of soil for medium to high level analysis (with 10 mL of methanol). Sample amounts and preservative types may vary between regulatory agencies.

\*\* Please note the beveled edge of the Lock N' Load<sup>TM</sup> Syringe is designed to fit perfectly into ESS' 40 mL vials.



## **5035 SOIL SAMPLING TOOLS & KITS** (CONTINUED)



## ESS CORE N' ONE CAPSULE (5 gm) AND HANDLE

The easiest way to sample and transport 5 grams of undisturbed soil for EPA Method 5035

- CNO is both a soil collection and transportation device
- Screw-threaded Septa closure ensures airtight seal and "zero headspace"
- CNO Capsule incorporates extruding feature; no need for expensive tools
- CNO Handle is strong, economical and easy to use
- EPA Approved

Description	Part #	Quantity Per Case	Price Per Case
Core N' One Capsule	CPSL-5035-CO	20	\$150.00
Core N' One Handle	HAND-5035-CO	1	\$12.50

NOTES: For comparative performance data visit our website: www.essvial.com

#### Core N' One Instructions

- Remove capsule from Ziploc® bag and insert prongs into the slots of the CNO handle. Make a 1/4 turn to the right to lock the capsule in place.
- Unscrew the capsule cap and bore the beveled edge opening into the soil. You can determine if you have taken a full (+/- 5 gram) sample by holding the capsule up to the light. The dark shading of the soil should be at the top level of the cap threads.
- Wipe any soil from the cap threads and screw the cap tight.
   The edge of the cap should touch the center rib of the capsule.

- Insert the capsule into the Ziploc® bag for transport to the lab.
- To extrude the soil, remove the sample side screw-threaded closure (with the Teflon®/silicone septum inserted). Then remove the back side screw-threaded portion. Reverse this piece so the built-in cup portion can be put over the plunger. Push down on the plunger to extrude the soil sample.

Ziploc® is a registered trademark of S.C. Johnson & Son, Inc.



## **POLYETHYLENE & TEFLON® BAILERS**



#### **ESS** Bailers feature:

- Joints that are welded 360°
- Dispensing tips included
- Precleaned to VOC procedure
- Solvent-free construction
- Leak-proof
- Include EPA Certification
- Ball construction of high density Polyethylene and Delrin®
- Large top opening for easy dispensing



Description	Size — (O.D. x Length)	Qty/Cs	Part #	Price
STANDARD POLYETHYLENE DISPOSABLE BAILERS	1.5" x 36"	24	1536-SPDB-VT	\$100.80
	1.5" x 12"	24	1512-SPDB-VT	\$90.00
	3" x 36"	9	0336-SPDB-VT	\$71.55
WEIGHTED POLYETHYLENE DISPOSABLE BAILERS	1.5" x 36"	24	1536-WPDB-VT	\$130.80
	1.5" x 12"	24	1512-WPDB-VT	\$120.00
	3" x 36"	9	0336-WPDB-VT	\$85.05
MINI STANDARD POLYETHYLENE DISPOSABLE BAILERS	3/4" x 36"	24	7536-MSDB-VT	\$118.80
	3/4" x 12"	24	7512-MSDB-VT	\$79.20
MINI WEIGHTED POLYETHYLENE DISPOSABLE BAILERS	3/4" x 36"	24	7536-MWDB-VT	\$142.80
	3/4" x 12"	24	7512-MWDB-VT	\$95.20
Standard Teflon® Disposable Bailers	1.5" x 12"	12	1512-STDB-VT	\$119.40
	1.5" x 36"	12	1536-STDB-VT	\$191.40
Weighted Teflon® Disposable Bailers	1.5" x 12"	12	1512-WTDB-VT	\$143.40
	1.5" x 36"	12	1536-WTDB-VT	\$215.40
LATEX GLOVES POWDER FREE, TEXTURED NON-SLIP	Large	100	MFL300L	\$10.75
	Medium	100	MFL300M	\$10.75
Nylon Twine (165#)	1/32" x 100'	24	0100-ROPE-VT	\$60.00
	1/32" x 200'	20	0200-ROPE-VT	\$60.00
	1/32" x 300'	15	0300-ROPE-VT	\$60.00
VOC T IPS	3/4" Polyethylene tips	24	75PE-TIPS-VT	\$13.50
	1.5" Polyethylene tips	24	15PE-TIPS-VT	\$13.50
	3" Polyethylene tips	9	30PE-TIPS-VT	\$8.00
	1.5" Teflon®	12	15TF-TIPS-VT	\$12.00
FILTER	0.45 micron	1	QED45-FLTR	\$15.00

Teflon® and Delrin® are registered trademarks of E. I. DuPont.



# COLD ICE® REFRIGERANT, FOAMPAC™ & BUBBLE WRAP BAGS



## COLD ICE® GEL REFRIGERANT

Type	Product	Weight	Quantity	Price	Notes
L" x W" x D"	Number	oz.	Per Case	Per Case	
4 1/2 x 4 x 1/2 6 x 4 x 3/4 6 x 5 x 3/4 7 1/4 x 6 x 1/2 7 x 6 x 1 9 x 4 1/2 x 1 8 x 6 x 1 11 x 8 1/4 x 1/2 9 x 6 x 1 1/2 11 x 8 x 1 1/4 12 x 6 x 2	4CA 8CC 12CA 12CP 16CA 20CB 24CA 24CP 32CB 48CA 48CB	4 8 12 12 16 20 24 24 32 48 48	108 72 42 48 32 28 24 24 18 12	\$33.48 \$25.92 \$22.26 \$24.96 \$18.88 \$15.40 \$13.92 \$13.92 \$15.30 \$12.12 \$12.12	COLD ICE <sup>®</sup> GEL REFRIGERANT USES NONTOXIC FDA/USDA- APPROVED INGREDIENTS. LEAK-PROOF AND REUSABLE.

#### **FOAMPAC™**

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Туре	Product Number	Pieces Held	Price Per Case	Notes
40 mL GV	0940-2500	9	\$43.20	ESS FOAMPAC™ IS A CONTAINER PROTECTOR MADE OF GRAY-ETHER.
40 mL GV	1240-2500	12	\$30.60	ESS FOAMPac <sup>tm</sup> is sold at 12 per case.
1 L ABR	1000-2500	1	\$48.00	
1 L ABR	1004-2500	4	\$18.00	SOLD IN EACH.

## **BUBBLE WRAP BAGS**

Туре	Product Number	Quantity Per Case	Price Per Case	Notes
4" x 5 1/2" 4" x 7 1/2" 7" x 8 1/2" 8" x 11 1/2"	0455-8000-BB 0475-8000-BB 0785-8000-BB 8115-8000-BB	1500 1100 550 350	\$217.50 \$170.50 \$134.75 \$105.00	THESE BAGS HAVE A REUSABLE ADHESIVE STRIP FOR A TIGHT SEAL AND ARE AVAILABLE IN OTHER SIZES.

## **SLEEVE-IT®**

Туре	Product Number	Quantity Per Case	Price Per Roll	Notes
SLEEVE-IT ® FOAM BOTTLE SLEEVE	SLEEVEIT 1	250/roll	\$132.00	The polystyrene mesh sleeve fits snugly around 500 mL and 1 L glass sample containers.

Cold Ice<sup>®</sup> Gel is a registered trademark of Cold Ice; FoamPac<sup>™</sup> is a trademark of ESS; Sleeve-It<sup>®</sup> is a registered trademark of Richter.



## **LABELS & CONVERSION CHARTS**



## **Sample ID Labels**

These labels are available in two sizes and come free with your order. Extras may be purchased in any quantity.

3" x 1.5"	1503-5000	\$0.10 ea.
3" x 2"	0203-5000	\$0.10 ea.

#### **Preservative Dot Labels**

These color-coded dot labels with the chemical description accompany our *PrePreserved*® containers, and are available in most of the chemicals we offer.

PRES-LBLS-R \$55.00/roll of 1000

## **Tamper-Proof Custody Seals**

6" x 1"	0006-5000	\$16.50/pkg. of 100
7" x 1" Red Cust Seal	TRED	\$0.15 ea.

## **ESS Custody Tape**

2" x 55 yds. CUSTTAPE	\$7.00/roll
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ESS Labels are popular because they won't come off with condensation, have a matted surface that won't smear and include an adhesive that is made without target chemicals (toluene). For clients that use our labels, you can purchase the Zebra® thermal printer to enter sample information onto the label fields. For more information, contact ESS Customer Service.

Zebra® is a registered trademark of ZIH Corp.

mL vs.	ounces
mL	oz.
1	.03381
2	.06762
3	.10143
4	.13524
5	.16905
6	.20286
7	.23667
8	.27048
9	.30429
10	.3381
11	.37191
12	.40572
13	.43953
14	.47334
15	.50715
16	.54096
17	.57477
18	.60858
19	.64239
20	.6762
21	.71001
22	.74382
23	.77763
24	.81144
25	.84525
29.57	1
40	1.3524
59.14	2
60	2.6286
118.28	4
120	4.0572
125	4.2263
177.42	6
236.56	8
250	8.4525
354.84	12
473.12	16 (1 pt.)
500	16.905
650.54	22
946.24	32 (1 qt.)
950	32.1195
1000	33.81
1005.38	34
1892.48	64
2000	67.62
2200	74.38
2365.6	80
2500	84.525
3784.96	128 (1 gal.)
4000	135.24
9462.4	320 (2.5 gal.)
10,000	338.1
18,924.8	640 (5 gal.)
20,000	676.2
25,000	845.25

mm vs. inches					
mm	inches				
1	.03937				
2	.07874				
3	.11811				
4	.15748				
5	.19685				
6	.23622				
7	.27559				
8	.31496				
9	.35433				
10	.3937				
11	.43307				
12	.47244				
13	.51181				
14	.55118				
15	.59055				
16	.62992				
17	.66929				
18	.70866				
19	.74803				
20	.7874				
21	.82677				
22	.86614				
23	.90551				
24	.94488				
25	.98425				
25.4	1				
28	1.10236				
33	1.29921				
38	1.49606				
45	1.77165				
48	1.88976				
50	1.968				
50.08	2				
53	2.08661				
58	2.28346				
63	2.48031				
70	2.7559				
75	2.953				
75.2	3				
83	3.26771				
89	3.50393				
100	3.937				
101.6	4				
110	4.3307				
120	4.7244				
127	5				
152.4	6				
177.8	7				
203.2	8				
228.6	9				
254	10				
279.4	11				
304.8	12				
609.6	24				
914.4	36				



## REFERENCE GUIDE TO FIELD SAMPLING

Parameter	Water & Wastewater Method <sup>5</sup> /Container	Solid Waste Method <sup>5</sup> /Container	Preservation <sup>1</sup>	ESS Container No. Water & WW/ Solid Waste	ESS Pg. Ref.	EPA Holding Time
Organic						
Purgeable Halocarbons	601/40 mL GV	8010/125 mL CWM septa	Cool 4 C, HCl<2	0040-0300/0125-0615	7/6	14 days
Purgeable Aromatics	602/40 mL GV	8020/125 mL CWM septa	Cool 4 C, HCl<2 <sup>2</sup>	0040-0300/0125-0615	7/6	14 days
Acrolein and Acrylonitrate	603/40 mL GV	8030/125 mL CWM septa	Cool 4 C, HCl<2	0040-0300/0125-0615	7/6	14 days
Phenols	604/1 L ABR	8040/250 mL AWM	Cool 4 C	1000-0150/0250-0050	8/9	see 4
Benzidines	605/1 L ABR	n/a	Cool 4 C	1000-0150/n/a	8/n/a	see 4
Phthalate Esters	606/1 L ABR	8060/250 mL AWM	Cool 4 C	1000-0150/0250-0050	8/9	see <sup>4</sup>
Nitrosamines	607/1 L ABR	8270/250 mL AWM	Cool 4 C	1000-0150/0250-0050	8/9	see <sup>4</sup>
Pesticides and PCBs	608/1 L ABR	8080/250 mL AWM	Cool 4 C	1000-0150/0250-0050	8/9	see <sup>4</sup>
Nitroaromatics and Isophorone	609/1 L ABR	8090/250 mL AWM	Cool 4 C	1000-0150/0250-0050	8/9	see <sup>4</sup>
Polynuclear Aromatic Hydrocarbons	610/1 L ABR	8100/250 mL AWM	Cool 4 C	1000-0150/0250-0050	8/9	see <sup>4</sup>
Haloethers	611/1 L ABR	8270/250 mL AWM	Cool 4 C	1000-0150/0250-0050	8/9	see <sup>4</sup>
Chlorinated Hydrocarbons	612/1 L ABR	8120/250 mL AWM	Cool 4 C	1000-0150/0250-0050	8/9	see 4
Dioxins and Furans	613/1 L ABR	8280, 8290/250 mL AWM	Cool 4 C	1000-0150/0250-0050	8/9	see 4
Organophosphate Pesticides	614/1 L ABR	8140/250 mL AWM	Cool 4 C	1000-0150/0250-0050	8/9	see 4
Chlorinated Herbicides	615/1 L ABR	8150/250 mL AWM	Cool 4 C	1000-0150/0250-0050	8/9	8/9
Purgeables	624/40 mL GV	8240/250 mL AWM	Cool 4 C, HCl<2 <sup>2</sup>	0040-0300/0125-0615	7/6	14 days
Nonhalogenated Volatile Organics	n/a	8015, 8270/250 mL AWM	Cool 4 C	n/a/0250-0050	n/a/9	14 days
Base/Neutrals, Acids and Pesticides	625/1 L ABR	8250, 8270/250 mL AWM	Cool 4 C	1000-0150/0250-0050	8/9	see 4

Parameter	Water & Wastewater Method <sup>5</sup> /Container	Solid Waste Method <sup>s</sup> /Container	Preservation <sup>1</sup>	ESS Container No. Water & WW/ Solid Waste	ESS Pg. Ref.	EPA Holding Time
GENERAL AND INORGANICS						
Acidity Alkalinity BOD Bromide COD Color Chloride Coliform, Fecal and Total Cyanide (Total) Fluoride Oil and Grease Nitrate Nitrite Nitrate and Nitrite pH Phenol Sulfate Sulfide Sulfite	305.1/250 mL HDPE MR 310.1/250 mL HDPE MR 405.1/500 mL HDPE MR 320.1/250 mL HDPE MR 410.1 or 410.2/250 mL ABR 110.3/125 mL HDPE MR 325.3/125 mL HDPE MR 909.A, 909.CSTD/250 mL HDPE MR 335.2/1 L HDPE MR 340.2/500 mL HDPE MR 413.2/2 L CNM 353.2 or 300/250 mL HDPE MR 353.3 or 300/250 mL HDPE MR 150.1/125 mL HDPE MR 150.1/125 mL HDPE MR 420.1/1 L ABR 375.4/125 mL HDPE MR 376.1/1 L HDPE MR 377.1/500 mL HDPE MR	n/a n/a n/a n/a n/a n/a n/a n/a 9251, 9252/125 mL CWM 9131, 9132/125 mL CWM 9010/125 mL CWM 9070, 9071/2 L CWM 9200/250 mL CWM n/a 9200/250 mL CWM 940, 9041, 9045/125 mL CWM 9036, 9038/125 mL CWM 9030/250 mL CWM	Cool 4 C Cool 4 C Cool 4 C n/a Cool 4 C, H <sub>2</sub> SO <sub>4</sub> <2 Cool 4 C n/a Cool 4 C, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Cool 4 C, NaOH ph>12 <sup>3</sup> n/a Cool 4 C, H <sub>2</sub> SO <sub>4</sub> <2 Cool 4 C Cool 5 C C C Cool 5 C C C C C C C C C C C C C C C C C C C	0250-1000/n/a 0250-1000/n/a 0250-1000/n/a 0250-1000/n/a 0250-0150/n/a 0125-1000/n/a 0125-1000/0125-0015 0250-1000/0125-0015 0950-1000/0125-0015 0500-1000/n/a 2000-0010/2000-0010 0250-1000/0250-0015 0125-1000/0250-0015 0125-1000/0125-0015 1025-1000/0125-0015 1025-1000/0125-0015 0125-1000/0125-0015 0125-1000/0125-0015 0125-1000/0125-0015 0500-1000/0250-0015	10/n/a 10/n/a 10/n/a 10/n/a 8/n/a 10/n/a 10/9 10/9 10/n/a 9/9 10/n/a 10/9 10/9 10/9 10/9 10/9 10/9 10/9	14 days 14 days 48 hours 28 days 28 days 48 hours 28 days 6 hours 14 days 28 days 48 hours 28 days 48 hours 28 days 48 hours 48 hours 48 hours 28 days 48 hours 7 days Now 18 days 19 days 10 days Now 19 days Now 19 days Now
TOX TOC	450.1/500 mL ABR 415.1/125 mL ABR/septa	9020, 9021/125 mL CWM 9060/125 mL CWM	Cool 4 C, H <sub>2</sub> SO <sub>4</sub> <2 Cool 4 C, H <sub>2</sub> SO <sub>4</sub> <2	0500-0150/0125-0015 0125-0650/0125-0015	8/9 6/9	28 days 28 days

 $GV=glass\ vial;\ CWM=clear\ wide\ mouth;\ AWM=amber\ wide\ mouth;\ ABR=amber\ Boston\ round\\ HDPE\ MR=high\ density\ polyethylene\ modern\ round;\ HDPE\ WM=high\ density\ polyethylene\ wide\ mouth\\ HDPE\ WM=high\ density\ high\ density\ high\ density\ high\ density\ high\ density\ high\ density\ high\ density$ 

NOTES: 

1 Chemical preservation applicable to water samples. 2 Sodium thiosulfate if chlorine present. 3 Ascorbic acid if chlorine present. 4 Water and wastewater have a holding time of 7 days for extraction and 40 days for analysis. 5 Methods derived from most current EPA methods.



# ESS—FOR ALL YOUR ENVIRONMENTAL SAMPLING PRODUCT NEEDS



Parameter	Water & Wastewater Method <sup>5</sup> /Container	Solid Waste Method <sup>5</sup> /Container	Preservation <sup>1</sup>	ESS Container No. Water & WW/ Solid Waste	ESS Pg. Ref.	EPA Holding Time
METALS						
Chromium VI	218.4/250 mL HDPE MR	7196/250 mL CWM	Cool 4 C	0250-1000/0250-0015	10/9	24 hours
Mercury	245.1/250 mL HDPE MR	7470/250 mL CWM	Cool 4 C, HNO <sub>3</sub> <2	0250-1000/0250-0015	10/9	28 days
Organic Lead	n/a/1L ABR	n/a/125 mL CWM	Cool 4 C	1000-0150/0125-0015	8/9	14 days
All Other Metals	200 series or 200.7/ 500 mL HDPE MR	7000 series/ 250 mL HDPE WM or 6010/250 mL CWM	Cool 4 C, HNO <sub>3</sub> <2	0500-1000/0250-1041 0250-1051 0250-0015	10/11 n/a/11 n/a/9	28 days

Parameter	Drinking Water Method	Container	Preservation <sup>1</sup>	ESS Container No.	ESS Pg. Ref.	EPA Holding Time
Trihalomethanes	501.1	40 mL GV	Na,S <sub>2</sub> O <sub>3</sub> or Na <sub>2</sub> SO <sub>3</sub>	0040-0300	7	14 days
Trihalomethanes	501.2	40 mL GV	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> or Na <sub>2</sub> SO <sub>3</sub>	0040-0300	7	14 days
Trihalomethanes	503.1	40 mL GV	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> or Na <sub>2</sub> SO <sub>3</sub>	0040-0300	7	14 days
Volatile Halogenated Organic	502.1	40-120 mL GV	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> or Ascorbic Acid, HCl<2, 4°C	0040-0300	7	14 days
Compounds	7,421					
Volatile Organic Compounds	502.2	40-120 mL GV	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> or Ascorbic Acid, HCl<2, 4°C	0040-0300/0125-0650	7/6	14 days
Volatile Aromatic/Unsaturated	503.1	40-120 mL GV	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> or Ascorbic Acid, HCl<2, 4°C	0040-0300/0125-0650	7/6	14 days
Organic Compounds			223			•
EDB and DBCP	504	40 mL GV	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , HCl<2, 4°C	0040-0300	7	28 days
Organohalide Pesticides/PCBs	505	40 mL GV	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , 4°C	0040-0300	7	7 to 14 days
N & P Containing Pesticides	507	1 L ABR	HgCl <sub>2</sub> , Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , 4°C	1000-0150	8	Ext. analyte dependent/
						14 days after ext.
Chlorinated Pesticides	508	1 L ABR	HgCl <sub>2</sub> , Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , 4°C	1000-0150	8	7 days ext./14 days after ext.
PCB Screening	508 A	1 L ABR	4°C	1000-0150	8	14 days ext./30 days after ext.
Max. Total Trihalomethane	510.1	250 mL ABR	4°C, Dark	0250-0650	6	14 days/14 days after incubation
Chlorinated Acids (Herbicides)	515.2	1 L ABR	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , HCl<2, 4°C	1000-0150	8	14 days ext./14 days after ext.
Purgeable Organic Compounds	524.2	40-120 mL GV	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> or Ascorbic Acid, HCl<2, 4°C	0040-0300/0125-0650	7/6	14 days
Organic Compounds	525.1	1 L ABR	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> or NaAsO <sub>2</sub> , pH<2 HCl, 4°C	1000-0150	8	7 days ext./30 days after coll.
(Extractable)						
N-Methyl Carbamoyloximes	531.1	60 mL CWMS/S 60 mL ABR	Monochloroacetic Acid Buffer (pH=3) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> -10°C	0060-0615/0060-0650	6	28 days
Endothall	548.1	250 mL ABR	Na,S <sub>2</sub> O <sub>2</sub> , HCl<2, 4°C, pH 1.5 to 2.0	0250-0150	8	7 days ext./14 days after ext.
Diquat & Paraquat	549.1	1 L HD PVC	Na <sub>2</sub> S <sub>2</sub> O <sub>2</sub> , 4°C, pH≈2 H <sub>2</sub> SO <sub>4</sub>	0950-1200	10	7 days ext./21 days after ext.
Haloacetic Acids & Dalapon	552.1	250 mL ABR	NH <sub>4</sub> Cl, 4°C, dark	0250-0150	8	28 days ext./48 hours after ext.
Benzidines & N Containing	553	1 L ABR	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , 4°C	1000-0150	8	7 days ext./23 days after ext.
Pesticides						
Carbonyl Compounds	554	250 mL ABR	NH <sub>4</sub> Cl, 4°C	0250-0150	8	3 days ext.
(Aldehydes)						
Chlorinated Acids (Herbicides)	555	125 mL ABR	Na <sub>2</sub> SO <sub>3</sub> , HCl<2, 4°C, dark	0125-0150	8	14 days

 $GV = glass\ vial; CWM = clear\ wide\ mouth;\ AWM = amber\ wide\ mouth;\ ABR = amber\ Boston\ round\\ HDPE\ MR = high\ density\ polyethylene\ modern\ round;\ HDPE\ WM = high\ density\ polyethylene\ wide\ mouth\\ HDPE\ WM = high\ density\ polyeth$ 

NOTES: 

¹Chemical preservation applicable to water samples. 
²Sodium thiosulfate if chlorine present. 
³Ascorbic acid if chlorine present. 
⁴Water and wastewater have a holding time of 7 days for extraction and 40 days for analysis. 
⁵Methods derived from most current EPA methods.



## 1631 CONTAINERS — LOW LEVEL HG & METALS

You may order any container cleaned for EPA Method 1631/1669 which includes washing by ESS LPP Cleaning Procedure with drying in our "Low Particle Procedure" Room. "LPP" Class containers are also available with:

- Independent Lot Certification via Method 1631 to < 0.50 ng/L
- Double Bagging with heavy Zip Lock(R) bags
- Custom kits with Latex gloves and custody seals
- Silane Treated Containers
- Trip Blank Water (UPBW DI+)
- available PrePreserved® with HCI

LPP Class Containers are suitable for chemical packaging applications to .2 micron.



#### Fluorinated

Description	Capacity mL	Part Number	Closure Size	Quantity Per Case	Price Per Case
WIDE MOUTH - NATURAL - LP CLASS					
32 oz.	950	3224-1060-FLP	63-415	24	\$300.00
16 oz.	500	1648-1060-FLP	53-415	48	\$300.00
8 oz.	250	0872-1060-FLP	43-415	72	\$288.00
NARROW MOUTH - NATURAL - LP CLASS					
32 oz.	950	3224-1070-FLP	63-415	24	\$300.00
16 oz.	500	1648-1070-FLP	53-415	48	\$315.00
8 oz.	250	0872-1070-FLP	43-415	72	\$288.00

## Low Particle Cleaned Containers — Glass

Description	Capacity mL	Part Number	Closure Size	Quantity Per Case	Price Per Case
NARROW MOUTH - CLEAR - BOSTAR ROUND					
16 oz.	500	0500-0100	28-400	14	\$30.36
8 oz.	250	0250-0100	24-414	12	\$24.36
NARROW MOUTH - AMBER - BOSTAR ROUND					
16 oz.	500	0500-0150	28-400	14	\$30.36
8 oz.	250	0250-0150	24-414	12	\$24.36
OPEN TOP VIAL/SEPTA - CLEAR					
60 mL	60	7260-0300	24-414*	72	\$102.24
40 mL	40	0040-0300	24-414*	72	\$87.84

<sup>\*</sup>Open Top Closure

# Double Bagging — Ziplock® Pulltap Bags

Description	Part Number	Quantity	Price
DOUBLE - Z BAG 32 oz. 16 oz. 8 oz.	32 DBLE - Z Bag 16 DBLE - Z Bag 8 DBLE - Z Bag	Ea Ea Ea	\$1.30 \$1.00 \$.100
1 PAIR LATEX GLOVES IN ZIPLOCK® BAG	1 PRDLG		\$0.50

#### NOTES:

Allow lead time when ordering Fluorinated, LP Class, Silane Treated and or lot analysis. ESS stocks several certified lots of LP Class containers. Contact ESS Customer Service for availability.

Contains washed /dried in LPP "Clean Room"

LPP comes with cleaning certification

LPQ comes with 1631 Lab report.

Ziplock® is a registered trademark of S.c. Johnson & Son, Inc.



# **CONTAINER SPECIFICATIONS**

Product	Page	Dimensions*	Closure
	#	(H" x D")	Size
VIALS	7		
60 mL		5 3/4 x 1 1/16	24-414
40 mL		3 3/4 x 1 1/16	24-414
20 mL		2 1/4 x 1 1/16	24-414
10 mL		2 3/4 x 3/4	15-425
Amber BR	8		
34 oz.		8 7/8 x 4	33-430
16 oz.		6 15/16 x 3	28-400
8 oz.		5 11/16 x 2 3/8	24-414
4 oz.		4 5/8 x 1 7/8	24-414
2 oz.		3 11/16 x 1 7/16	20-400
CLEAR BR	8		
32 oz.		8 1/8 x 3 5/8	33-400
16 oz.		6 5/8 x 2 7/8	28-400
8 oz.		5 7/16 x 2 5/16	24-414
4 oz.		4 3/8 x 1 7/8	22-400
Amber Jugs	8		
135 oz.		14 x 6 1/4	38-430
2.5 L		12 1/4 x 5	38-430
CLEAR JUGS	8		
128 oz.		11 7/16 x 6 1/2	38-400
2.5 L		12 1/8 x 5 1/8	38-430
CLEAR WM - TALL	9		
2.5 gal.		12 15/16 x 9 1/4	120-400
128 oz.		9 15/16 x 6 1/8	110-400
68 oz.		8 3/8 x 4 7/8	83-400
64 oz.		6 1/4 x 5 1/2	110-400
32 oz.		6 1/2 x 3 5/8	89-400
16 oz.		6 1/2 x 2 5/8	63-400
8 oz.		4 13/16 x 2 1/4	58-400
4 oz.		4 x 1 7/8	48-400
CLEAR WM - SHORT	9		
16 oz.		3 3/4 x 3 1/2	89-400
8 oz.		3 3/8 x 2 7/8	70-400
4 oz.		2 1/8 x 2 3/8	58-400
2 oz.		1 11/16 x 2 1/8	53-400
Amber WM - RP	9		
85 oz.		9 3/8 x 5 1/2	70-400
32 oz.		7 1/4 x 3 3/16	53-400
16 oz.		5 7/8 x 3 1/8	53-400
8 oz.		4 3/4 x 2 1/2	45-400
4 oz.		3 3/16 x 2	38-400
2 oz.		2 15/16 x 1 11/16	33-400
1 oz.		2 1/2 x 1 7/16	28-400
Amber WM - Short	9		
8 oz.		3 3/8 x 2 7/8	70-400
4 oz.		2 1/2 x 2 3/8	58-400
<b>TCLP</b> 74 oz.	9	13 x 4 3/8	100-400

Product	Page #	Dimensions* (H" x D")	Closure Size
Modern Round	10		
32 oz. 16 oz. 8 oz. 4 oz.		8 1/2 x 3 3/8 6 13/16 x 2 5/8 5 1/2 x 2 1/8 4 3/8 x 1 5/8	28-410 28-410 28-410 24-410
Cylinder Round	10		
1 L 16 oz. 8 oz. 4 oz.		9 1/2 x 3 1/4 7 5/8 x 2 1/2 6 1/4 x 2 4 7/8 x 1 5/8	28-410 24-410 24-410 24-410
HDPE Jug	10		
128 oz. 64 oz.		11 3/4 x 6 9 3/4 x 4 13/16	38-400 38-400
HDPE CUBE	10		
20 L 2.5 gal. 1 gal. 1 qt.		11 x 11 x 11 9 x 9 x 9 6.5 x 6.5 x 6.5 4 x 4 x 4	38-400 38-400 38-400 38-400
STRAIGHT SIDED	11		
32 oz. 16 oz. 8 oz.		6 5/8 x 3 5/8 3 3/4 x 3 5/8 3 7/16 x 2 7/8	89-400 89-400 70-400
ROUND PACKER	11		
128 oz. 68 oz. 32 oz. 16 oz. 8 oz. 4 oz. 2 oz. 1 oz.		9 1/4 x 6 3/16 8 1/2 x 4 13/16 7 1/8 x 3 5/8 6 x 2 13/16 4 1/4 x 2 3/8 3 3/4 x 1 13/16 2 15/16 x 1 9/16 2 1/8 x 1 1/2	110-400 100-400 63-400 53-400 48-400 38-400 33-400 28-400
OBLONG	11		
32 oz. 16 oz. 8 oz. 4 oz.		7 1/4 x 4 1/4 x 2 3/4 5 5/8 x 3 1/2 x 2 1/2 4 5/8 x 2 7/8 x 2 1/8 3 3/4 x 2 x 1 5/8	53-400 43-400 43-400 38-400
Nalgene® WM	12		
32 oz. 16 oz. 8 oz. 4 oz.		7 7/8 x 3 5/8 6 5/8 x 2 7/8 5 3/16 x 2 3/8 3 7/8 x 2	63-415 53-415 43-415 38-415
Nalgene® NM	12		
32 oz. 16 oz. 8 oz. 4 oz.		8 1/2 x 3 5/8 6 11/16 x 2 13/16 5 3/16 x 2 3/8 3 7/8 x 1 7/8	38-430 28-415 24-415 24-415
<b>D</b> ROPULE <sup>TM</sup>	14		
15 mL		2 7/8 x 1	15-425



<sup>\*</sup>All sizes listed are with lids attached.