

PFA

High-Purity Bottles & Vials



Automation and Sample Preparation
SAMPLE COLLECTION CONSUMABLES GUIDE

ESL Elemental
Scientific

INTRODUCTION & OVERVIEW

Liquid Containers for Semiconductor Analysis

PFA vials are ideal for applications that require the utmost purity in sampling handling and storage. Fabricated from ultrapure raw material and extremely resistant to attack from the most aggressive chemicals, these vials are an excellent choice for the semiconductor industry as well as any other process where contamination control down to the parts-per-trillion level is paramount.

Vials

With the lowest metal impurities and widest temperature range of any fluoropolymer, PFA vials are ideal for high purity samples.

Caps not included.

- Non-contaminating
- Leak-proof seal
- Preserves sample integrity



Description	Volume	Diam.	Qty	Part Number
15 mL graduated vial	15 mL	30 mm	10	V-31-15-X
15 mL graduated flat bottom vial	15 mL	30 mm	10	V-31-15F-X
30 mL graduated vial	30 mL	30 mm	5	V-31-30-V
			10	V-31-30-X
60 mL graduated vial	60 mL	30 mm	10	V-31-60-X
60 mL graduated flat bottom vial	60 mL	30 mm	10	V-31F-60-X
Cap for 30 mm Vials				
Threaded screw cap for 30 mm vials	-	30 mm	10	PFA-K29-X

Bottles

The ultimate polymer bottle for laboratory applications. Ideal for trace metals and ultra-pure acids. Pumped/pressurized specialty rinse bottles available for ESI autosamplers also.

Caps included.

- Non-contaminating
- Leak-proof seal
- Preserves sample integrity



Description	Volume	Diam.	Qty	Part Number
125 mL bottle with cap and TFM insert	125 mL	-	1	V-50-0360
250 mL bottle with 38-430 standard acid cap	250 mL	-	1	EBP0250
500 mL bottle with 38-430 standard acid cap	500 mL	-	1	EBP0500
			4	EBP0500-IV
500 mL bottle with GL45 cap	500 mL	-	1	V-70-0360

Jars

Sample collection, digestion, transport and storage in the highest purity most inert material possible.

Caps not included.

- Non-contaminating
- Leak-proof seal
- Preserves sample integrity

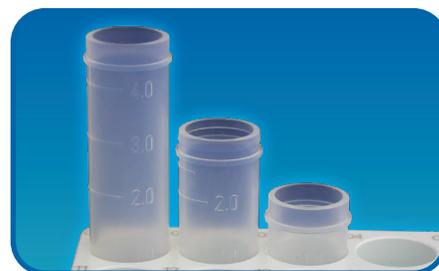


Description	Volume	Diam.	Qty	Part Number
100 mL jar, conical interior with external flat bottom	100 mL	50 mm	1	PFAJ-100
180 mL jar, conical interior with external flat bottom	180 mL	50 mm	1	T44-418
Cap for 50 mm Jars				
Threaded screw cap for 50 mm jars	-	52 mm	1	T44-400

Graduated Micro Vials

For storage and analysis of the smallest sample volumes.
Caps not included.

- Non-contaminating
- Leak-proof seal
- Preserves sample integrity



Description	Volume	Diam.	Qty	Part Number
1 mL conical skirted vial, ridged for snap-on or press-on cap	1 mL	14 mm	1	V-14-0311CG
			10	V-14-0311CG-X
2 mL conical skirted vial, ridged for snap-on or press-on cap	2 mL	14 mm	1	V-14-0312CG
			10	V-14-0312CG-X
4 mL conical skirted vial, ridged for snap-on or press-on cap	4 mL	14 mm	1	V-14-0314CG
			10	V-14-0314CG-X
1 mL conical skirted vial, ridged for press-on cap	1 mL	14.5 mm	1	V-15-0311CG
			10	V-15-0311CG-X
2 mL conical skirted vial, ridged for press-on cap	2 mL	14.5 mm	1	V-15-0312CG
			10	V-15-0312CG-X
4 mL conical skirted vial, ridged for press-on cap	4 mL	14.5 mm	1	V-15-0314CG
			10	V-15-0314CG-X

Caps for Graduated Micro Vials

Use with micro-vials for safe transport and storage.

- Non-contaminating
- Leak-proof seal
- Preserves sample integrity



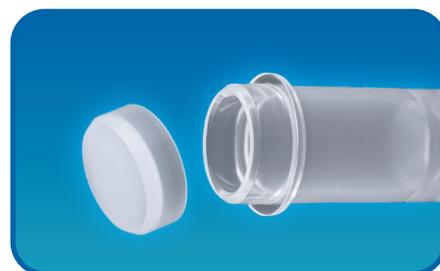
Description	Diam.	Qty	Part Number
Snap-on caps for 14 mm PFA Micro Vials	14 mm	10	V-15-0300-X
PFA tall cap for 14 mm Vials	14 mm	10	V-14-0309-X
		100	V-14-0309-C
Dust protection press-on caps for 14 mm Vials	14 mm	10	V-15-0301-X
EFTE tweezers, 14 mm, allows for precise removal of PFA cap with knob	-	1	ES-7225-0001

T-12 Tubes

Micro-volume tubes for sample digestion, storage and analysis.

Caps not included.

- Non-contaminating
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- Preserves sample integrity



Description	Volume	Diam.	Qty	Part Number
1 mL sample cup, conical interior with external flat bottom	1 mL	12 mm	1	PFA-T12-M
			10	PFA-T12-M-X
Cap				
Dust cover cap, with flat top for vacuum tweezers	-	12 mm	10	PFA-C12-X

T-16 Tubes

These larger volume tapered-bottom tubes for micro racks allow easy handling of small volume samples and offer both leak-proof caps and an optional septum piercing cap system. They have gradation marks at 2mL, 5mL and 10mL and are self-standing.

Caps not included- see page 6.

- Non-contaminating
- Leak-proof seal
- Preserves sample integrity



Description	Volume	Diam.	Qty	Part Number
12 mL tube, flat bottom (self-standing), gradations at 2 mL, 5 mL, and 10 mL	12 mL	16 mm	1	PFA-T16
			10	PFA-T16-X
			100	PFA-T16-C

T-16 Tube Insert Caps, Septum Pierce Caps & Sheets

Standard and specialty vial caps for unique applications:

- Insert caps for long-term storage
- Evaporation cap for safe and secure dry-down within the vials
- Septum piercing caps to eliminate external contamination up to the moment of measurement, or loss of volatile species/ changes in composition due to evaporation during extended analyses runs



PFA-C16



PFA-EC16



PFA-PC16



PFA-S16



Insert Caps	Volume	Diam.	Qty	Part Number
Insert cap for 16 mm PFA tube (PFA-T16), knurled grip	-	16 mm	100	PFA-C16-C
			10	PFA-C16-X
			1	PFA-C16
Evaporation cap for 16 mm PFA tube (PFA-T16), knurled grip. Cap has PFA inlet tubing and fitting for N2 or Ar purge gas and PFA solvent outlet. Evaporation cap forms a tight seal to maintain sample integrity during evaporation.	-	16 mm	1	PFA-EC16
Septum Pierce Caps				
Septum pierce cap for 16 mm PFA tube (PFA-T16), knurled grip. Cap holds thin PFA sheet in place and has opening to allow the autosampler probe to pass through.	-	16 mm	100	PFA-PC16-C
			10	PFA-PC16-X
			1	PFA-PC16
PFA Sheets				
Septum pierce cap sheets for 16 mm PFA Tube	-	16 mm	100	PFA-S16-C
			10	PFA-S16-X

Barcoded Vials for sampleTRAX

Vials with linear and 2D barcodes for simplified integration into LIMS while eliminating transcription errors. Bar codes are laser-etched for long-term durability. **Caps included.**

- Non-contaminating
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Description	Volume	Diam.	Qty	Part Number
1 mL micro centrifuge vial with conical bottom	1 mL	12 mm	1	TXV3-1
12 mL graduated vial, with 2D barcode on base	12 mL	16 mm	1	TXV3-12
15 mL graduated vial, with 2D barcode on base	15 mL	29 mm	1	TXV3-15
			10	TXV3-15-X
30 mL vial with dual 2D barcode (side & base)	30 mL	30 mm	1	TXV3-30-DC
50 mL vial with dual 2D barcode (side & base)	50 mL	30 mm	1	TXV3-50-DC

▶▶▶ Add “-BC” to the end of vial or bottle part number for barcoded cap option

Barcoded Bottles for sampleTRAX

Bottles with linear and 2D barcodes for simplified integration into LIMS while eliminating transcription errors. Bar codes are laser-etched for long-term durability. **Caps included.**

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Description	Volume	Diam.	Qty	Part Number
10 mL wide mouth bottle (without inner stopper)	10 mL	28 mm	1	TXV3-10
20 mL wide mouth bottle (without inner stopper)	20 mL	28 mm	1	TXV3-20
100 mL wide mouth bottle with 2D bottom barcode, 1D side barcode and 2D barcoded cap option	100 mL	28 mm	1	TXV3-100-DC
250 mL wide mouth bottle with 2D bottom barcode, 1D side barcode and 2D barcoded cap option	250 mL	61 mm	1	TXV3-250-DC
500 mL wide mouth bottle with 2D bottom barcode, 1D side barcode and 2D barcoded cap option	500 mL	77 mm	1	TXV3-500-DC

ETC EasyTraceCleaner®

Automatically cleans vials to semiconductor grade

The ETC EasyTraceCleaner® is a system that decontaminates and pre-conditions all types of vessels utilizing the condensation of acid vapor. Two models are available:



ETC EVO II

The ETC EVO II can process PFA, PTFE, PP, quartz, glass, etc., and includes one tray with removable rods for many different vials, liners and pipette tips.



ETC EVO II with CRD

The addition of the CRD (Clean-Rinse-Dry) system to the ETC EVO II enhances its capabilities with cleaning options for dual acids and/or flasks.



Included tray with removable rods.

- Easy and flexible system
- Secure handling
- Saves on reagents

All Analab products, including the ETC EasyTraceCleaner® can be customized to suit the chemical process for all vials/bottles/jars used in any laboratory.

ANALAB®
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Essential equipment for the preparation and ultra-trace analysis of precious samples

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Evolution of Automation
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Elemental Scientific designs and produces a full range of automation and sample introduction systems for the determination of trace element concentrations in liquid samples by inductively coupled plasma instrumentation. Our extensive product line contains sample introduction devices for all models of ICP instruments, including:

- Fully automated inline and offline dilution / standardization / QC systems
- *FAST* systems
- Innovative SC-DX Series clean, intelligent autosamplers
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- Inert autosampler and manual sampling probes
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