

# SUPERIOR REPRODUCIBILITY SUPERIOR RESULTS

## Supra-Clean and Supra-Poly SPE Solutions

Manufactured for guaranteed reproducibility and superior performance, this innovative line of SPE solutions includes the Supra-Clean<sup>®</sup> silica based and Supra-Poly<sup>®</sup> polymer based line of spherical media SPE cartridges and columns.

Both utilize Precise Bed Technology<sup>®</sup> allowing columns to be evenly and consistently filled with particles sized for optimum distribution. This homogeneous filling yields a +/- 1% variation in bed volume precision, ensuring you experience repeatability and optimized recovery reproducibility.

Ideal for a broad array of analytes and matrices, SPE solutions are available in a variety of formats including Large Reservoir Capacity (LRC) columns, Polypropylene (PP) columns and cartridges, and glass columns. Each technology is offered with a wide selection of polymer and silica sorbents, and large and small sample volumes (50 µL-1L) allow you to perform scalable analyses depending upon your required detection limits.

Each finished product is delivered with an individual quality certificate.

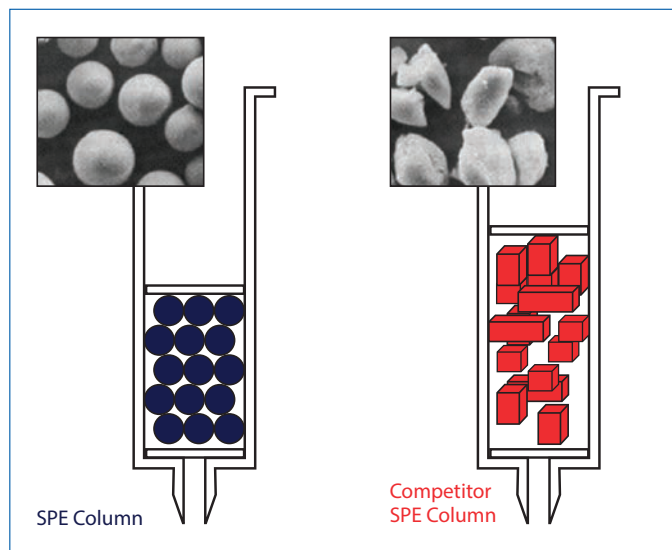


### SPE Manifolds, Selection Kits and Application Packs

For greater method development simplicity and sample throughput, PerkinElmer offers a variety of pre-prepared column selection kits as well as application kits for you to choose from.

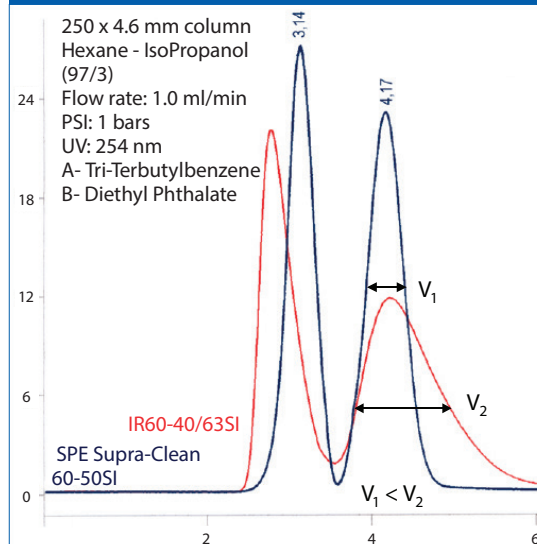
#### SPE Manifolds:

- Allow you to process up to 24 samples simultaneously
- Seamlessly integrate with columns to extend the system's performance and reproducibility
- Feature polypropylene or stainless steel needle valves and tips with minimum dead volume
- Rugged stopcocks are reusable and provide independent flow control



Spherical media and consistent particle distribution enable smaller elution volumes and better, more reproducible extraction, purification, concentration and recovery.

### Performance Comparison of PerkinElmer Spherical SPE Media vs. Leading Irregular SPE Silica.



PerkinElmer's smaller, more homogeneous, spherical media deliver sharper, narrower peaks for faster, more accurate analysis.

## A WIDE ARRAY OF COLUMNS FOR A BROAD RANGE OF APPLICATIONS

SUPRA-CLEAN SPHERICAL SILICA				
Phase	Mechanism	Interaction mode	Compounds	Matrix
C18-S	Hydrophobic	Reversed Phase	Polar to Non-Polar compounds	Biological fluids, aqueous samples
High Recovery REC18	Hydrophobic	Reversed Phase	Non-polar and mid-polar compounds including 100% water solvents	Biological fluids, aqueous samples toxins in food
Phenyl (PH-S)	Hydrophobic	Reversed Phase	Non-polar to mid-polar aromatic compounds	Biological fluids
Silica (SI-S)	Hydrophilic	Normal Phase	Polar compounds	Non-polar organics, oils, lipids
Amino (NH2-S)	Hydrophilic	Normal Phase	Polar to Mid-Polar aromatic compounds	Biological fluids, aqueous samples, buffered organics
Strong Cation Exchange (SCX)	Ion Exchange	Ion Exchange	Basic compounds	Biological fluids, aqueous samples, buffered organics
Weak cation Exchange (WCX)	Ion Exchange	Ion Exchange	Strong basic compounds	Biological fluids, aqueous samples
Strong Anion Exchange (SAX)	Ion Exchange	Ion Exchange	Acidic compounds	Biological fluids, aqueous samples
Cyano (CN-S)	Hydrophilic	Normal Phase	Polar to Mid-Polar compounds	Non-polar organics, oils, lipids
Florisil (FL-S)	Hydrophilic	Normal Phase	Polar compounds	Ideal for polar compounds in non-polar matrix
Florisil Pesticide (FL-S)	Hydrophilic	Normal Phase	Polar compounds	Ideal for polar compounds in non-polar matrix
Polyamine (P6)	Hydrophilic	Reversed Phase	Carboxylic acids, phenolics and nitroaromatics	Aqueous and mid-polar matrices
300 A (C4)	Hydrophobic	Reversed Phase	Non-polar to mid-polar compounds	Biological Samples
LCC	Hydrophobic	Reversed Phase	Non-polar to mid-polar compounds	Biological fluids, aqueous samples
Mixed mode (MM1)	Ion Exchange/ Hydrophobic	Reversed Phase / SCX	Basic compounds	Biological samples
Mixed mode (MM2)	Ion Exchange/ Hydrophobic	Reversed Phase / WCX	Very basic compounds	Biological samples
Mixed mode (MM3)	Ion Exchange/ Hydrophobic	Reversed Phase / SAX	Acidic compounds	Biological samples
SUPRA-POLY SPHERICAL POLYMER				
Extreme Capacity (XC)	Hydrophobic	Reversed Phase	Polar and non-polar	Aqueous or organic
Extreme Capacity Wide Pore (XWP)	Hydrophobic	Reversed Phase	Polar and non-polar	Biological and viscous samples
Hydrophilic (ATH)	Hydrophilic	Reversed Phase	Mid to non-polar compounds	Aqueous or organic
Lipophilic (ATL)	Lipophilic	Reversed Phase	Mid to non-polar compounds	Crude samples
Environmental (AEV)	Hydrophilic/ Hydrophobic	Reversed Phase	Mid to non-polar compounds	Aqueous or Organic
HLB	Hydrophilic/lipophilic balanced	Reversed Phase	Mid to non-polar compounds	Aqueous or organic



Typical Applications	pH Range	End-capping	Pore Size (Å)	Surface Area (m <sup>2</sup> /g)	Particle Size (µm)	Comments
Drugs and drug metabolites in biological matrices, trace organic material in water, toxins in food	2-8	Yes	60	500	50	18% Carbon Load (CL)
Drugs and drug metabolites in biological matrices, trace organic material in water,	2-8	Yes	NA	NA	50	High capacity and better recovery especially for high aqueous conditions. 15% CL
Benzodiazepines in biological matrices, extraction of aromatic compounds	2-8	No	60	500	50	9% CL
Aldehydes, amines, pesticides, herbicides, carotenoids, fat soluble vitamins, aflatoxins, fatty acids, and phospholipids	2-8	No	60	500	50	Bare Silica
Basic compounds, polar amine compounds, carbohydrates	2-8	No	60	500	50	5% CL
Cations, antibiotics, drugs, amino acids, catecholamines, herbicides, nucleic acid bases, nucleosides, and surfactants	2-8	No	60	450	60	Strong Acid - Sulfonic acid; Exchange capacity 0.70 meq/g
Cations, amines, antibiotics, drugs, amino acids, catecholamines, nucleic acid bases, nucleosides, and surfactants	2-8	No	60	450	60	Weak Acid - Carboxylic acid; Exchange capacity 0.22 meq/g
Acidic food pigments, organic acids, phenol compounds, nucleic acids, nucleotides, surfactants	2-8	No	60	450	60	Strong Base - quaternary amine; Exchange capacity 0.30 meq/g
Polar compounds in hexane and oil	2-8	Yes	60	500	50	8% CL; Mid-range polarity between silica and C18
Pesticides, Polychlorinated Biphenyls (PCB)	2-8	No	NA	NA	200	Standard grade. Alternative to silica for viscous matrices due to large particle size.
Pesticides	2-8	No	NA	NA	200	High purity pesticide grade. Alternative to silica for viscous matrices
Aromatic and natural products; Flavones, Chalkones, Anthraquinones	2-8	No	NA	NA	100	Nylon 6
Hydrophobic peptides and polypeptides	2-8	No	300	-	-	Large pore size for isolation of large molecules
Non-polar compounds in aqueous solution	2-8	Yes	60	500	50	10% CL; Lower carbon load than C18-S and REC18
Drugs and drug metabolites	2-8	No	60	450	60	Exchange capacity 0.09 meq/g
Drugs and drug metabolites	2-8	No	60	450	60	Exchange capacity 0.10 meq/g
Drugs and drug metabolites	2-8	No	60	450	60	Exchange capacity 0.14 meq/g
Drugs and drug metabolites biological fluids	0-14	No	NA	1500	70	High capacity polystyrene-divinylbenzene (PSDVB)
Drugs and drug metabolites biological fluids	0-14	No	Wide Pore	1200	90	High capacity PSDVB for large biomolecules and viscous matrices
Mid-polar and non-polar compounds in aqueous and organic solvents	1-13	No	70	800	75	Mixed hydrophilic/hydrophobic interactions
Lipids	0-14	No	70	800	100	PSDVB; Alternative to high flow silica for mid-polar to non-polar compounds (<3000D) in samples
Aqueous environmental compounds that are not retained on C18	1-12	No	70	800	75	Advanced environmental; Polystyrene-co-2-hydroxyethyl methacrylate (PSHEMA)
Mid-polar and non-polar compounds in aqueous and organic solvents	0-14	No	80	850	30 & 60	Hydrophilic-lipophilic-balanced reversed-phase sorbent for acids, bases and neutrals

# SOLID PHASE EXTRACTION (SPE)



## Supra-Clean Columns, Cartridges and 96 Well Plates:

- Pure spherical silica
- Pore size 60 - 120 Å
- 20 chemistries with pH range 2-8

## Supra-Clean C18

### Columns

Media Weight	Volume	Quantity	Part №.
50 mg	1 ml	50	N9306476
100 mg	1 ml	100	N9306478
100 mg	3 ml	50	N9306523
200 mg	3 ml	50	N9306462
500 mg	3 ml	50	N9306438
500 mg	3 ml*	50	N9306642
200 mg	6 ml	30	N9306634
500 mg	6 ml	30	N9306448
500 mg	6 ml*	30	N9306640
1 g	6 ml	30	N9306422
2 g	6 ml	30	N9306430
2 g	15 ml	20	N9306479
2 g	25 ml	20	N9306475

\* Not end-capped

### 96 Well Plates

Media Weight	Volume	Quantity	Part №.
25 mg	2 ml	1	N9306566
50 mg	2 ml	1	N9306567
100 mg	2 ml	1	N9306568

### Cartridges

Media Weight	Volume	Quantity	Part №.
390 mg		50	N9306587
910 mg		50	N9306588
1690 mg		50	N9306589

## Supra-Clean REC18

### Columns

Media Weight	Volume	Quantity	Part №.
50 mg	1 ml	50	N9306519
100 mg	1 ml	100	N9306520
100 mg	3 ml	50	N9306455
200 mg	3 ml	50	N9306521
500 mg	3 ml	50	N9306522
200 mg	6 ml	30	N9306633
500 mg	6 ml	30	N9306457
1 g	6 ml	30	N9306491

### 96 Well Plates

Media Weight	Volume	Quantity	Part №.
25 mg	2 ml	1	N9306563
50 mg	2 ml	1	N9306564
100 mg	2 ml	1	N9306565

## Supra-Clean Strong Anion Exchange (SAX)

### Columns

Media Weight	Volume	Quantity	Part №.
50 mg	1 ml	50	N9306553
100 mg	1 ml	100	N9306471
100 mg	3 ml	50	N9306554
200 mg	3 ml	50	N9306482
500 mg	3 ml	50	N9306555
500 mg	6 ml	30	N9306556

### 96 Well Plates

Media Weight	Volume	Quantity	Part №.
25 mg	2 ml	1	N9306581
50 mg	2 ml	1	N9306582
100 mg	2 ml	1	N9306583

## Supra-Clean 300Å C4

### Columns

Media Weight	Volume	Quantity	Part №.
50 mg	1 ml	50	N9306590
100 mg	1 ml	100	N9306591
100 mg	3 ml	50	N9306592
200 mg	3 ml	50	N9306593

## Supra-Clean Strong Cation Exchange (SCX)

## Columns

Media Weight	Volume	Quantity	Part #.
50 mg	1 ml	50	N9306536
100 mg	1 ml	100	N9306432
100 mg	3 ml	50	N9306537
200 mg	3 ml	50	N9306538
500 mg	3 ml	50	N9306539
500 mg	6 ml	30	N9306540

## 96 Well Plates

Media Weight	Volume	Quantity	Part #.
25 mg	2 ml	1	N9306575
50 mg	2 ml	1	N9306576
100 mg	2 ml	1	N9306577

## Supra-Clean Weak Cation Exchange (WCX)

## Columns

Media Weight	Volume	Quantity	Part #.
50 mg	1 ml	50	N9306544
100 mg	1 ml	100	N9306545
100 mg	3 ml	50	N9306546
200 mg	3 ml	50	N9306547
500 mg	3 ml	50	N9306420
500 mg	6 ml	30	N9306407

## Supra-Clean Mixed-Mode (MM1)

## Columns

Media Weight	Volume	Quantity	Part #.
50 mg	1 ml	50	N9306541
100 mg	1 ml	100	N9306542
100 mg	3 ml	50	N9306419
200 mg	3 ml	50	N9306543
500 mg	3 ml	50	N9306481
500 mg	6 ml	30	N9306416
200 mg	15 ml	50	N9306713

## 96 Well Plates

Media Weight	Volume	Quantity	Part #.
25 mg	2 ml	1	N9306578
50 mg	2 ml	1	N9306579
100 mg	2 ml	1	N9306580

## Supra-Clean Mixed-Mode (MM2)

## Columns

Media Weight	Volume	Quantity	Part #.
50 mg	1 ml	50	N9306548
100 mg	1 ml	100	N9306549
100 mg	3 ml	50	N9306550
200 mg	3 ml	50	N9306551
500 mg	3 ml	50	N9306411
500 mg	6 ml	30	N9306552

## Supra-Clean Mixed-Mode (MM3)

## Columns

Media Weight	Volume	Quantity	Part #.
500 mg	6 ml	30	N9306649

## Supra-Clean Florisil (FL-S)

## Columns

Media Weight	Volume	Quantity	Part #.
200 mg	3 ml	50	N9306511
500 mg	3 ml	50	N9306512
500 mg	6 ml	30	N9306494
1 g	6 ml	30	N9306413
2 g	6 ml	20	N9306513
2 g	15 ml	20	N9306514
2 g	25 ml	20	N9306515

## Supra-Clean Florisil (FL-S) Pesticide Grade

## Columns

Media Weight	Volume	Quantity	Part #.
200 mg	3 ml	50	N9306516
500 mg	3 ml	50	N9306400
500 mg	6 ml	30	N9306517
1 g	6 ml	30	N9306436
2 g	6 ml	30	N9306470
2 g	15 ml	20	N9306443
2 g	25 ml	20	N9306447

# SOLID PHASE EXTRACTION (SPE)

## Supra-Clean Silica (SI-S)

### Columns

Media Weight	Volume	Quantity	Part #
100 mg	3 ml	50	N9306532
200 mg	3 ml	50	N9306444
500 mg	3 ml	50	N9306402
500 mg	6 ml	30	N9306466
1 g	6 ml	30	N9306404
2 g	6 ml	20	N9306533
2 g	15 ml	20	N9306534
2 g	25 ml	20	N9306535

### Cartridges

Media Weight	Volume	Quantity	Part #
300 mg		50	N9306584
700 mg		50	N9306585
1300 mg		50	N9306586

## Supra-Clean Cyano (CN-S)

### Columns

Media Weight	Volume	Quantity	Part #
500 mg	3 ml	50	N9306645
500 mg	6 ml	30	N9306644

## Supra-Clean Amino (NH2-S)

### Columns

Media Weight	Volume	Quantity	Part #
50 mg	1 ml	50	N9306528
100 mg	1 ml	100	N9306410
100 mg	3 ml	50	N9306529
500 mg	3 ml	50	N9306414
200 mg	6 ml	50	N9306530
500 mg	6 ml	30	N9306531

### 96 Well Plates

Media Weight	Volume	Quantity	Part #
25 mg	2 ml	1	N9306572
50 mg	2 ml	1	N9306573
100 mg	2 ml	1	N9306574

## Supra-Clean Polyamine (P6)

### Columns

Media Weight	Volume	Quantity	Part #
500 mg	3 ml	50	N9306518
500 mg	6 ml	30	N9306434

## Supra-Clean Phenyl (PH-S)

### Columns

Media Weight	Volume	Quantity	Part #
50 mg	1 ml	50	N9306401
100 mg	1 ml	100	N9306524
100 mg	3 ml	50	N9306525
200 mg	3 ml	50	N9306490
500 mg	3 ml	50	N9306421
500 mg	6 ml	30	N9306526
1 g	6 ml	30	N9306527

### 96 Well Plates

Media Weight	Volume	Quantity	Part #
25 mg	2 ml	1	N9306569
50 mg	2 ml	1	N9306570
100 mg	2 ml	1	N9306571

## Supra-Clean LCC

### Columns

Media Weight	Volume	Quantity	Part #
500 mg	3 ml	50	N9306643
500 mg	6 ml	30	N9306641

**Supra-Poly HLB Columns and 96 Well Plates:**

- Contains macro-porous polymers with ultra-pure, pharmaceutical grade spherical particles
- Shorter analysis times, greater load capacity and reduced solvent usage
- Ideal for high throughput assays

**Supra-Poly HLB****30 µm Columns**

Media Weight	Volume	Quantity	Part#
30 mg	1 ml	50	N9306650
50 mg	1 ml	50	N9306655
60 mg	1 ml	50	N9306656
100 mg	1 ml	50	N9306657
30 mg	3 ml	50	N9306651
60 mg	3 ml	50	N9306658
100 mg	3 ml	50	N9306659
200 mg	3 ml	50	N9306660
500 mg	3 ml	30	N9306661
100 mg	6 ml*	30	N9306672
150 mg	6 ml	30	N9306662
200 mg	6 ml	30	N9306663
200 mg	6 ml*	30	N9306673
500 mg	6 ml*	30	N9306674
500 mg	6 ml	30	N9306664
500 mg	15 ml	20	N9306665
1 g	15 ml	20	N9306666
30 mg	15 ml**	50	N9306668
60 mg	15 ml**	50	N9306669
100 mg	15 ml**	50	N9306670
200 mg	15 ml**	50	N9306671
1 g	25 ml	20	N9306667

\* Glass columns    \*\* LRC columns

**30 µm 96 Well Plates**

Media Weight	Volume	Quantity	Part#
30 mg	2 ml	1	N9306698
50 mg	2 ml	1	N9306699
60 mg	2 ml	1	N9306700

**60 µm Columns**

Media Weight	Volume	Quantity	Part#
30 mg	1 ml	50	N9306652
50 mg	1 ml	50	N9306675
60 mg	1 ml	50	N9306676
100 mg	1 ml	50	N9306677
30 mg	3 ml	50	N9306653
60 mg	3 ml	50	N9306678
100 mg	3 ml	50	N9306679
200 mg	3 ml	50	N9306680
500 mg	3 ml	30	N9306681
100 mg	6 ml*	30	N9306692
150 mg	6 ml	30	N9306682
200 mg	6 ml	30	N9306683
200 mg	6 ml*	30	N9306693
500 mg	6 ml	30	N9306684
500 mg	15 ml	20	N9306685
500 mg	6 ml*	30	N9306694
1 g	15 ml	20	N9306686
30 mg	15 ml**	50	N9306688
60 mg	15 ml**	50	N9306689
100 mg	15 ml**	50	N9306690
200 mg	15 ml**	50	N9306691
1 g	25 ml	20	N9306687

\* Glass columns    \*\* LRC columns

**60 µm 96 Well Plates**

Media Weight	Volume	Quantity	Part#
30 mg	2 ml	1	N9306695
50 mg	2 ml	1	N9306696
60 mg	2 ml	1	N9306697

# SOLID PHASE EXTRACTION (SPE)

## Supra-Poly Columns and 96 Well Plates:

- Contains macro-porous polymers with ultra-pure, pharmaceutical grade spherical particles
- Shorter analysis times, greater load capacity and reduced solvent usage
- Ideal for high throughput assays

## Supra-Poly Extreme Capacity 1500 m<sup>2</sup>/g (XC)

### Columns

Media Weight	Volume	Quantity	Part #.
30 mg	1 ml	50	N9306441
50 mg	1 ml	50	N9306500
60 mg	1 ml	50	N9306501
100 mg	1 ml	50	N9306403
60 mg	3 ml	50	N9306502
100 mg	3 ml	50	N9306440
200 mg	3 ml	50	N9306428
200 mg	6 ml	30	N9306635
500 mg	6 ml	30	N9306405
1 g	15 ml	20	N9306503

### 96 Well Plates

Media Weight	Volume	Quantity	Part #.
30 mg	2 ml	1	N9306557
50 mg	2 ml	1	N9306558
60 mg	2 ml	1	N9306559

## Supra-Poly Extra Wide Particle 1200 m<sup>2</sup>/g (XWP)

### Columns

Media Weight	Volume	Quantity	Part #.
30 mg	1 ml	50	N9306504
50 mg	1 ml	50	N9306427
60 mg	1 ml	50	N9306505
100 mg	1 ml	50	N9306506
60 mg	3 ml	50	N9306507
100 mg	3 ml	50	N9306508
200 mg	3 ml	50	N9306509
500 mg	6 ml	30	N9306418
1 g	15 ml	20	N9306510

### 96 Well Plates

Media Weight	Volume	Quantity	Part #.
30 mg	2 ml	1	N9306560
50 mg	2 ml	1	N9306561
60 mg	2 ml	1	N9306562

## Supra-Poly Environmental (AEV)

### Columns

Media Weight	Volume	Quantity	Part #.
100 mg	3 ml	50	N9306648

## Supra-Poly Hydrophilic (ATH)

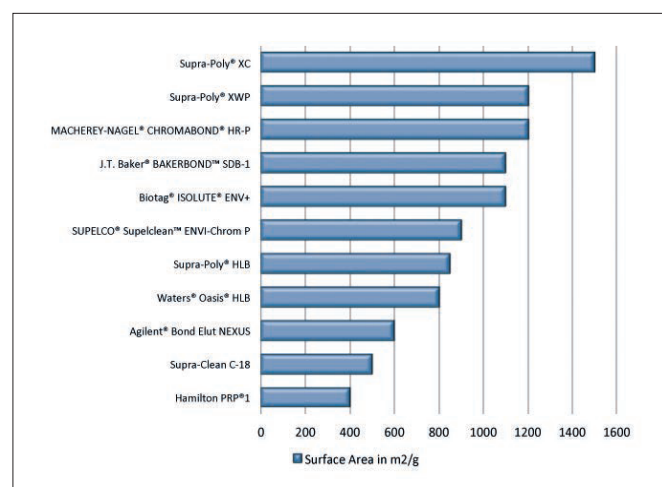
### Columns

Media Weight	Volume	Quantity	Part #.
100 mg	3 ml	50	N9306646
200 mg	3 ml	50	N9306638
200 mg	6 ml	30	N9306636

## Supra-Poly Lipophilic (ATL)

### Columns

Media Weight	Volume	Quantity	Part #.
100 mg	3 ml	50	N9306647
200 mg	3 ml	50	N9306639
200 mg	6 ml	30	N9306637



Compared to other industry leading SPE materials, our Extreme Capacity (XC) and Extra Wide Particles (XWP) lead market in surface area. This allows for higher capacities at lower bed weights.

## SPE APPLICATION PACKS

Ideal for extraction of known entities from a variety of matrices, our packs are expertly tailored to meet your application needs and are designed to support major EPA methods and applications.

Description	Media Weight	Volume	Quantity	Part #
Extraction of Basic Drugs from Biological Fluids	200 mg	3 ml	50	N9306605
Extraction of Bisphenol A from Aqueous Matrix	1 g	6 ml	30	N9306613
Extraction of Oil and Grease from Aqueous Matrix-EPA 1664	500 mg	3 ml	50	N9306612
	1 g	6 ml	30	N9306611
Extraction of PAH from Soil and Oil	1.5 g	6 ml	30	N9306609
Extraction of PAH from Soil and Oil (Glass Straight Column)	1.5 g	6 ml	30	N9306610
Extraction of PAH from Water Containing Humic Acids	1.5 g	6 ml	30	N9306608
Extraction of PAH from Water or Soil	4 g	6 ml	30	N9306606
Extraction of PAH from Water or Soil (Glass Straight Column)	4 g	6 ml	30	N9306607
Extraction of PCB from Oil	1 g	6 ml	30	N9306617
	1 g	3 ml	50	N9306616
Extraction of Pesticides and Herbicides from Aqueous Matrix	500 mg	3 ml	50	N9306614
Extraction of Steroids from Biological Fluids	500 mg	6 ml	30	N9306615
Extraction of SVOC from Water-EPA 525	1 g	6 ml	30	N9306618

## SPE SELECTION KITS

Enables quick column selection for development of reproducible and repeatable SPE methods.

Description	Media Weight	Volume	Quantity	Part #
Pre-Concentration of Hydrophobic Compounds from Aqueous Matrix	200 mg	6 ml	50	N9306594
	200 mg	3 ml	50	N9306595
Extraction of Hydrophobic Compounds from Aqueous Matrix	500 mg	6 ml	50	N9306596
	500 mg	3 ml	50	N9306597
Pre-Concentration of Hydrophilic Compounds	500 mg	6 ml	30	N9306598
	500 mg	3 ml	30	N9306599

Description	Media Weight	Volume	Quantity	Part #
Removal of Polar Compounds from Aqueous and Organic Matrix	500 mg	6 ml	30	N9306600
	500 mg	3 ml	30	N9306601
Extraction of Acidic Basic and Neutral Compounds from Aqueous or Organic Matrix	100 mg	3 ml	50	N9306602
Extraction of Carboxylic Acids and Strong Bases from Aqueous Matrix	500 mg	6 ml	40	N9306603
Extraction of Weak Bases from Aqueous Matrix	500 mg	6 ml	30	N9306604

## SPE VACUUM PUMPS, MANIFOLDS AND ACCESSORIES

SPE Vacuum Manifolds accommodate either 12 or 24 cartridges; 1, 3, 6, 15, and 25 mL columns can be used. Manifolds are equipped with a vacuum port to connect a standard laboratory vacuum pump. Vacuum pulls the sample through the stationary phase, metered by the stopcocks, to control the speed of the extraction process and the sample flow. Waste and wash solvents are discarded and analytes are collected in sample tubes below the manifold completing the extraction.

Description	Qty	12 Position Part No.	Qty	24 Position Part No.
Vacuum Manifold	1	N9306619	1	N9306626
Replacement Chamber (Glass)	1	N9306620	1	N9306627
Cover Gasket - 12 Position	1	N9306621	1	N9306628
Stopcocks - 12 Position	12	N9306624	24	N9306631
Needles - Polypropylene	12	N9306622	24	N9306629
Needles - Stainless Steel	12	N9306623	24	N9306630
Drying Attachment	1	N9306625	1	N9306632

Description	Qty	20 L/min 115V	60 L/min 115V	17 L/min 230V	58 L/min 230V
Vacuum Pumps	1	N9308035	N9308063	N9308331	N9308332



## AS EASY AS ONE, TWO, SPE



### Supra-d QuEChERS Dispersive SPE

Our Supra-d dispersive SPE extraction and clean-up kits have been customized for your specific sample preparation needs. They are designed for both steps of the QuEChERS method and each kit includes pre-prepared products for simplicity and error-free extractions. A certificate of quality is included in each kit, ensuring you have the best for your application. With our extensive line of dispersive SPE kits you'll be sure to find what you're looking for. Add our Supra-d dispersive SPE to your family of sample preparation products.

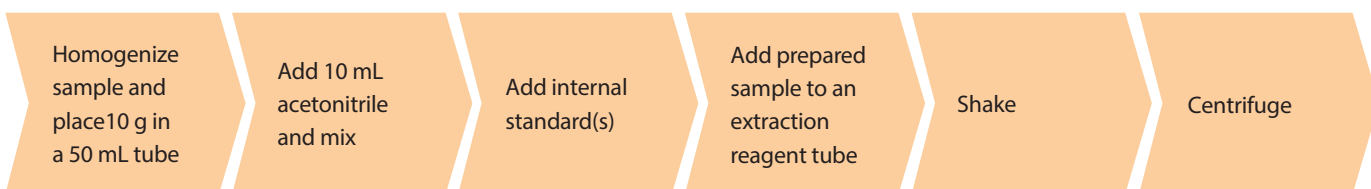
#### Features and Benefits:

- High recoveries are achieved for more accurate analyses
- Up to 4 times faster than traditional methods
- Low solvent usage and waste for maximum cost savings

PerkinElmer's Supra-d QuEChERS dispersive SPE turns sample preparation into an easy two-step process by using the QuEChERS method. QuEChERS (Quick, Easy, Cheap, Effective, Rugged, Safe) dispersive SPE, is the number one used sample preparation approach in pesticide residue analysis. It eliminates complex liquid extraction methods and extends the range of recovered pesticides. The QuEChERS procedure is fast and easy, improving lab productivity and resulting in fewer errors.

### QUECHERS SIMPLE TWO-STEP PROCEDURE:

#### Step 1: Extraction



#### Step 2: Clean-Up



## Supra-d QuEChERS For Multiple Pesticide Residue Analysis

PerkinElmer provides the most complete range of products for QuEChERS methodologies, offering all three standard QuEChERS methods: Original QuEChERS method, American AOAC Standard (Official Method 2007.01) QuEChERS method and European Standard (EN 15662) QuEChERS method.



### Extraction Kits

Method	Vol.	Qty.	MgSO <sub>4</sub>	Na Acetate	Na Citrate	Na Citrate Sesquihydrate	NaCl	PartNo.	Empty Tube Part No.	Powder Pack Part No.	Powder Pack (500/pk) PartNo.
AOAC 2007.01	50 mL	50	6 g	1.5 g				N9306900	N9306935	N9306936	N9306939
EN 15662	50 mL	50	4 g		1 g	0.5 g	1 g	N9306901	N9306935	N9306937	N9306940
Original	50 mL	50	4 g				1 g	N9306902	N9306935	N9306938	N9306941

### AOAC 2007.01 Clean-up Kits

Description	Vol.	Qty.	MgSO <sub>4</sub> <sup>1</sup>	PSA <sup>2</sup>	C18 <sup>3</sup>	PGC <sup>4</sup>	PartNo.
Fruit & Vegetables	2 mL	100	150 mg	50 mg			N9306908
Fruit & Vegetables	15 mL	50	1200 mg	400 mg			N9306909
Fruit & Vegetables with Fats and Waxes	2 mL	100	150 mg	50 mg	50 mg		N9306910
Waxed Fruit & Vegetables	15 mL	50	1200 mg	400 mg	400 mg		N9306911
Pigmented Fruit & Vegetables	15 mL	50	1200 mg	400 mg		400 mg	N9306912
Fruit & Vegetables with Pigments and Fats	2 mL	100	150 mg	50 mg	50 mg	50 mg	N9306913
Fruit & Vegetables with Pigments and Fats	15 mL	50	1200 mg	400 mg	400 mg	400 mg	N9306914

### EN 15662 Clean-up Kits

Description	Vol.	Qty.	MgSO <sub>4</sub> <sup>1</sup>	PSA <sup>2</sup>	C18 <sup>3</sup>	PGC <sup>4</sup>	PartNo.
Fruit & Vegetables	2 mL	100	150 mg	25 mg			N9306920
Fruit & Vegetables	15 mL	50	900 mg	150 mg			N9306921
Fruit & Vegetables with Fats and Waxes	2 mL	100	150 mg	25 mg	25 mg		N9306922
Waxed Fruit & Vegetables	15 mL	50	900 mg	150 mg	150 mg		N9306923
Pigmented Fruit & Vegetables	15 mL	50	900 mg	150 mg		15 mg	N9306924
Pigmented Fruit & Vegetables	2 mL	100	150 mg	25 mg		2.5 mg	N9306925
High Pigmented Fruit & Vegetables	2 mL	100	150 mg	25 mg		7.5 mg	N9306926
High Pigmented Fruit & Vegetables	15 mL	50	900 mg	150 mg		45 mg	N9306927

### Clean-up Kit

Description	Method	Vol.	Qty.	MgSO <sub>4</sub> <sup>1</sup>	PSA <sup>2</sup>	C18 <sup>3</sup>	PGC <sup>4</sup>	PartNo.
Clean-up Kit	Original	15 mL	50	900 mg	300 mg		150 mg	N9306933

<sup>1</sup> MgSO<sub>4</sub> removes excess water

<sup>2</sup> PSA removes sugars, fatty acids, organic acids, and anthocyanine pigments

<sup>3</sup> C18 removes nonpolar interferences

<sup>4</sup> PGC (carbon) removes pigments, sterols, and nonpolar interferences



## Disposable Syringes

Designed for use with syringe filters, these disposable, sterile, polypropylene syringes are for general-purpose applications. Packaged in easy-to-open sealed package and they can be autoclaved out of the package.

Description	Pack Size	Part No.
Luer-Lock Tips, 1 mL	100	02542890
Luer-Lock Tips, 3 mL	200	02542891
Luer-Lock Tips, 5 mL	100	02542892
Luer-Lock Tips, 10 mL	100	02542893

## Ultramicro Volume Syringes

Recommended for liquid sample injections of less than 5  $\mu$ L for gas chromatography. Syringes come standard with needle length of 7 cm – optimum for PerkinElmer injectors.

Syringe Capacity	Gauge	O.D.	I.D.	Tip Description	Pack Size	Part No.
0.5 $\mu$ L	26	0.47	0.1	Bevel	1	N9302231
1.0 $\mu$ L	23	0.63	0.15	Cone	1	00230177
1.0 $\mu$ L	261	0.47	0.15	Cone	1	00230111
2.0 $\mu$ L	23	0.63	0.12	Bevel	1	N9302235
5.0 $\mu$ L	23	0.63	0.37	Cone	1	00230178

<sup>1</sup> Recommended for PerkinElmer wide-bore capillary adapter

# OPTIMIZE SAMPLE THROUGHPUT

## The Quality You Need From A Partner You Trust

A broad variety of glass and plastic vials are essential to keeping all of your GC, LC and Headspace instruments running smoothly. Not only are the vial's dimensional qualities important for trouble-free runs, but the physical properties, like being free of contaminants, are equally important in order for your analysis to be accurate.

We're proud to offer you an expanded product selection which includes additional glass and plastic vial types, new caps and matching septa. All tested for the highest quality to meet both your application requirements and are guaranteed for fit and compatibility.

## Why Choose PerkinElmer? One Word – Quality

### Features and Benefits:

- Vials are made from Type I Borosilicate Glass. This glass meets all USP, JP and EP requirements. This glass is very hard and has a low expansion coefficient even at high temperature
- Vials are stringently tested using camera gauging technology to ensure final product meets all dimensional specifications
- All our vials, caps and septa are fit to perform on PerkinElmer and non-PerkinElmer instruments
- We stock a wide variety of sizes, colors and materials of vials, caps and septa
- All vials are packed in a clean room and those labeled with "LC Clean" include an additional certificate of analysis



## How to choose a Vial:

1. Choose a size. Vials come in a variety of sizes.

You measure a vial by looking at the:

- a. Volume (example is 2 mL)
- b. Diameter and height (example is 12 mm x 32 mm)
- c. I.D. of the neck (example is 11 mm)
- d. Finish (example is a snap top vial)

2. Choose a color.

If your sample is sensitive to light you may want to consider an amber vial.

3. Choose a material.

Vials are available in both glass and polyethylene. If you are analyzing a material that has proteins, you may want to consider using a polyethylene vial.



## How to choose a Seal:

1. Choose a septa material.

Temperature, resistance to coring, storage shelf time, the material you are analyzing – all of these variables should be taken into consideration when choosing your septa material. Look to page 119 for an outline on which septa is best for you.

2. Decide between a pre-slit or non-slit septa.

Due to the technique and type of needle they use, pre-slit septa are ideal for LC systems, while non-slit septa are ideal for GC and GC/MS systems.

3. Match the size of the cap/septa with the size of your vial.

## Do you need anything else?

We have a wide variety of crimpers, decappers, and vial trays to also make your analysis easier.

## Autosampler Vials

PerkinElmer vials are manufactured to specific tolerances that are guaranteed to fit and perform with PerkinElmer and non-PerkinElmer instruments. Our vials are manufactured from Type I Borosilicate Glass, which meets all USP, JP, and EP Pharmacopeia requirements. The glass performs excellent at high temperatures and is chemical resistant to acidic, neutral and alkali solutions. All our vials are packed in a clean environment to ensure you receive contaminant free product every time.



## Waste and Wash Vials, Caps and Septa for GC

I.D. Size	Product Description	Part No. 1/Pack	Screw	
			Part No. 100/pack	Part No. 1000/pack
13 mm	Clear Glass Vial - 4 mL (15 x 45 mm)	09923031	N9306247	
	200 µL Vial Insert			N9302681
	Support for Vial Insert			N9302682*
13 mm	Black Cap with PTFE/Silicone (Ultra Low Bleed) Septa		N9304141	N9304142
13 mm	Black Phenolic Cap (no septa)	09923032		
13 mm	Silicone Septa (no cap)		N9302780	

\*N9302682 is packaged 500/pack

## 2 mL Vials (12 x 32 mm):

I.D. Size	Vial Description	Crimp Top		Screw Top		Snap Top	
		Part No. 100/pack	Part No. 1000/pack	Part No. 100/pack	Part No. 1000/pack	Part No. 100/pack	Part No. 1000/pack
8 mm	Clear Glass	N9301069*				N9302945	
9 mm	Clear Glass					N9306201	
	Clear Glass with Write-on Patch and Fill Lines					N9307801	
	Clear Glass with Write-on Patch and Fill Lines (Silanized)					N9304139	
	Clear Polyethelene					N9301733	
	Clear Polyethelene (300 µL capacity)					N9301732	
	Amber Glass					N9306220	
	Amber Glass with Write-on Patch and Fill Lines					N9307802	
	Amber Glass with Write-on Patch and Fill Lines (Silanized)					N9304140	
10 mm	Clear Glass with Write-on Patch and Fill Lines					N9306053	
	Amber Glass with Write-on Patch and Fill Lines					N9306057	
11 mm	Clear Glass	N9301385		N9303418			
	Clear Glass with Write-on Patch and Fill Lines	N9306223		N9306207**			N9307017
	Clear Glass with Write-on Patch and Fill Lines (Silanized)	N9304135		N9304137			
	Amber Glass	N9302680					
	Amber Glass with Write-on Patch and Fill Lines	N9302679		N9306208**		N9307018	
	Amber Glass with Write-on Patch and Fill Lines (Silanized)	N9304136		N9304138			

\* N9301069 is packaged 200/pack ; \*\* Also includes grade levels

## Autosampler Fused Vials And Vial Inserts

For easy sampling, try our vials with fused sample inserts. A variety of volumes are available in either clear or amber glass. Polyethylene option available also.



I.D. Size	Capacity	Vial Type	Crimp Top		Screw Top		Snap Top	
			Part No. 100/Pack	Part No. 500/Pack	Part No. 100/Pack	Part No. 1000/Pack	Part No. 100/Pack	Part No. 1000/Pack
8 mm	100 µL	Clear Glass					N9300713	
8 mm	100 µL	Amber Glass					N9300714	
8 mm	200 µL	Clear Glass		N9302136*				
9 mm	300 µL	Clear Glass					N9300715	
9 mm	300 µL	Amber Glass					N9300716	
10 mm	300 µL	Clear Glass					N9300717	
10 mm	300 µL	Amber Glass					N9300718	
11 mm	300 µL	Clear Glass	N9300709		N9300711			
11 mm	300 µL	Amber Glass	N9300710		N9300712			
11 mm	600 µL	Clear Polyethylene		N9302130				

\*N9302136 should be used with Glass Vial Support Sleeve (N9307027)

## Autosampler Vial Inserts

Our vial inserts are made from the same Type 1, Class A borosilicate glass as our vials and can be used for maximum sample extraction. Vial inserts compatible with the following vials.



Capacity	Dimensions	Qty.	Vial Insert Part No.	Crimp Top		Screw Top		Snap Top	
				Part No. 100/Pack	Part No. 500/Pack	Part No. 100/Pack	Part No. 1000/Pack	Part No. 100/Pack	Part No. 1000/Pack
150 µL	5 x 29 mm Spring (insert 100/Pack only fits 8 mm vial)		N9300705					N9302945	
200 µL	5 x 32 mm Flat Bottom (insert only fits 8 mm vial)	100/Pack	N9300706					N9302945	
250 µL	6 x 29 mm Spring (this insert fits any 9, 10 or 11 mm vial)	100/Pack	N9300703	N9301385		N9303418	N9307018	N9304139	N9307017
				N9302679		N9304137		N9304140	
				N9302680		N9304138		N9306053	
				N9304135		N9306207		N9306057	
				N9304136		N9306208		N9306201	
				N9306223				N9306220	
				N9306231				N9307801	
								N9307802	
400 µL	6 x 31 mm Flat Bottom (this insert fits any 9, 10 or 11 mm vial)	100/Pack	N9300704	N9301385		N9303418	N9307018	N9304139	N9307017
				N9302679		N9304137		N9304140	
				N9302680		N9304138		N9306053	
				N9304135		N9306207		N9306057	
				N9304136		N9306208		N9306201	
				N9306223				N9306220	
				N9306231				N9307801	
								N9307802	

## Autosampler Caps And Septa

PerkinElmer offers a variety of caps and septa to fulfill your application needs. Our screw thread vial caps use the revolutionary Inter-Seal<sup>®</sup>. Using a process that bonds silicone/PTFE and other elastomeric compounds directly into thermoplastic closures eliminates liner fallout, while still providing the excellent resealability and multiple injection capability. No adhesives are used in this process, bonding the cap and septa at the molecular level of plastic and rubber. These septa have a very broad chemical resistance and can be used in many markets including: environmental, diagnostic packaging, pharmaceutical packaging, cosmetic and food packaging.



I.D. Size	Septa Type	Cap Type (Pre-Assembled)	Crimp Top		Screw Top		Snap Top	
			Part No. 100/Pack	Part No. 1000/Pack	Part No. 100/Pack	Part No. 1000/Pack	Part No. 100/Pack	Part No. 1000/Pack
8 mm	PTFE	Aluminum Cap		N9302140				
	PTFE/Red Rubber	Aluminum Cap		03300806				
	PTFE/Silicone	Black Flanged Cap					N9303449	
	PTFE/Silicone (Pre-Slit)	Polyethelyne Cap with Slit				N9302141		
9 mm	PTFE/Red Rubber	Blue Cap					N9306200	
	PTFE/Silicone	Blue Cap					N9306360	N9306361
	PTFE/Silicone (ultra-low bleed)	Blue Cap					N9306362	
	PTFE/Silicone (Pre-Slit)	Blue Cap					N9306203	N9306363
	PTFE/Silicone (ultra-low bleed and Pre-Slit)	Blue Cap					N9306364	N9306365
10 mm	PTFE/Red Rubber	Black Cap					N9306206	
	PTFE/Silicone	Black Cap					N9306205	
	PTFE/Silicone (Pre-Slit)	Black Cap					N9306052	
11 mm	PTFE/Red Rubber	Aluminum Cap (Silver)	N9306015*					
	PTFE/Red Rubber	Aluminum Cap (Blue)	N9302686					
	PTFE/Red Rubber	Aluminum Cap (Green)	N9302684					
	PTFE/Red Rubber	Aluminum Cap (Red)	N9302685					
	PTFE/Silicone (white/red)	Aluminum Cap (Silver)	N9307823					
	PTFE/Silicone (white/white)	Aluminum Cap (Silver)	N9306228					
	PTFE/Silicone (white/red)	Clear Plastic Cap			N9303419			
	PTFE/Silicone - pre-slit (white/red)	Clear Plastic Cap			N9303416			
	PTFE/Silicone/PTFE	Aluminum Cap (Silver)	N9306229					
	PTFE/Silicone/PTFE	Gold Magnetic Cap	N6356473					
	PTFE/Silicone/PTFE	Clear Plastic Cap			N9303417			
	Aluminum/PTFE	Aluminum Cap (Silver)		N9302139**				
	Black Viton	Aluminum Cap (Silver)		N9302784				

\* Same as part number N9306230 ; \*\*N9302139 is packaged 500/pack

I.D. Size	Septa Type	Cap Type (Un-Assembled)	Crimp Top		Screw Top		Snap Top	
			Part No. 100/Pack	Part No. 1000/Pack	Part No. 12/Pack	Part No. 500/Pack	Part No. 100/Pack	Part No. 1000/Pack
8 mm	PTFE/Buytl						N9303442	
		Phenolic Cap					N9303441	
11 mm	PTFE/Silicone				00091357			
	PTFE/Silicone (Pre-Slit)					N9307021		
		Clear Plastic Cap with Slit				N9307023		
		Clear Plastic Cap with Slit				04978532		

## Autosampler Vial, Cap And Septa Convenience Kits

PerkinElmer understands your challenges and offers a variety of kits so that you can easily order and restock your laboratory supplies.



I.D. Size	Septa Type	Cap Type	Vial Type	Screw Top	
				Part No. 100/Pack	Part No. 500/Pack
8 mm	PTFE/Silicone	Black Cap	Clear Glass	N9301945	
9 mm	PTFE/Red Rubber	Blue Cap	Clear Glass	N9300699	
9 mm (certified)	PTFE/Silicone	Blue Cap	Amber Glass	N9300719	
9 mm	PTFE/Silicone	Blue Cap	Clear Glass	N9300700	
9 mm (certified)	PTFE/Silicone	Blue Cap	Clear Glass	N9300707	
9 mm	PTFE/Silicone (Pre-Slit)	Blue Cap	Amber Polyethylene	N9301735	
9 mm (certified)	PTFE/Silicone (Pre-Slit)	Gray Cap	Amber Glass	N9300720	
9 mm	PTFE/Silicone (Pre-Slit)	Blue Cap	Clear Polyethylene	N9301736	
9 mm	PTFE/Silicone (Pre-Slit)	Blue Cap	Clear Polyethylene (300 µL capacity)		N9306080
9 mm (certified)	PTFE/Silicone (Pre-Slit)	Gray Cap	Clear Glass	N9300708	
9 mm	PTFE/Silicone (Pre-Slit)	Blue Cap	Clear Glass	N9300701	
10 mm	PTFE/Silicone (Pre-Slit)	Black Cap	Clear Glass	N9300695	N9300650
10 mm	PTFE/Silicone (Pre-Slit)	Black Cap	Amber Glass	N9300696	

\* Same as part number N9306230 ; \*\*N9302139 is packaged 500/pack

I.D. Size	Septa Type	Cap Type	Vial Type	Crimp Top		Snap Top	
				Part No. 100/Pack	Part No. 500/Pack	Part No. 100/Pack	Part No. 1000/Pack
11 mm	PTFE/Red Rubber	Aluminum Cap	Clear Glass	N9300502	N9300503		
11 mm	PTFE/Silicone	Aluminum Cap	Clear Glass	N9300500			
11 mm	PTFE/Silicone	Clear Plastic Cap	Clear Glass			N9300702	
11 mm	PTFE/Silicone (Pre-Slit)	Clear Plastic Cap	Clear Glass			N9300697	
11 mm	PTFE/Silicone/PTFE	Aluminum Cap	Clear Glass	N9300501			
11 mm	PTFE/Silicone/PTFE	Clear Plastic Cap	Clear Glass			N9300698	

## Autosampler Vial, Cap And Septa Starter Kits

PerkinElmer understands your challenges and offers a variety of kits so that you can easily evaluate, order and restock your laboratory supplies.



Kits Include:		Autosampler Starter Kit	GC Educational Consumables Kit with Electronic Crimper	GC Educational Consumables Kit with Manual Crimper
Part No.		Part No. N6120105	Part No. N6500570	Part No. N6500571
Manual Hand Crimper with 11 mm Jaws	00090699	1		1
Manual Hand Decapper with 11 mm Jaws	N9301390	1		
Electronic Hand Crimper with 11 mm Jaws	N9304500		1	
2 mL, 11 mm Clear, Crimp Vials	N9301385	100	200	200
2 mL, 11 mm Amber, Crimp Vials	N9302680	100		
11 mm Aluminum Crimp Caps (Silver) with PTFE/Red Rubber Septa	N9306015	100	200	200
11 mm Aluminum Crimp Caps (Green) with PTFE/Red Rubber Septa	N9302684	100		
11 mm Aluminum Crimp Caps (Red) with PTFE/Red Rubber Septa	N9302685	100		
11 mm Aluminum Crimp Caps (Blue) with PTFE/Red Rubber Septa	N9302686	100		
11 mm Silicone Septa (no cap)	N9302780	100		
11 mm Vial Rack - 50 Vial Capacity	N9301303	1	2	1
Syringe 9000 5.0 µL 0.63 mm o.d.	N6101390	1	2	2
Elite 5 Column - 30 M x 0.25 mm x 0.25 µm	N9316076		1	1

## Headspace Vials

PerkinElmer offers a variety of GC headspace vials, caps and septa to fulfill your application needs. Our patented vial and cap design incorporates pressure-relief features which guarantee safe operation with the high pressure typically developed during thermostating. Ordinary vials and caps without these safety features may burst. All of our headspace vials have a greater wall thickness and round base which enables them to withstand pressure up to 60 psig. Low-volume sampling can be achieved by using a 6 mL vial and vial adapter. All PerkinElmer headspace vials are manufactured to specific tolerances that are guaranteed for fit and performance.



### 22 mL Vial Description (23 mm x 75.5 mm)

Description	Crimp Top		Screw Top	
	Part No. 100/Pack	Part No. 1000/Pack	Part No. 100/Pack	Part No. 1000/Pack
Clear Glass with "P" logo (Radius Bottom)		B0104236	N9306075	N9306078
Clear Glass with Write-on Patch and Fill Lines (Radius Bottom)			N9306240	N9306241

### 20 mL Vial Description (23 mm x 75.5 mm)

Description	Crimp Top		Screw Top	
	Part No. 100/Pack	Part No. 1000/Pack	Part No. 100/Pack	Part No. 1000/Pack
Clear Glass (no logo) (Radius Bottom)		N9306216		
Clear Glass with "P" logo (Radius Bottom)	N6356471*			
Clear Glass with Write-on Patch and Fill Lines (Radius Bottom)	N9303349	N9303348		
	N6356472*	N9303351*	N9306242*	
Clear Glass with Write-on Patch and Fill Lines (Flat Bottom)		N9303352*		

\*For use with CTC headspace (actual size = 22.6 x 75.5mm)

### 10 mL Vial Description (21.75 mm x 46 mm)

Description	Crimp Top		Screw Top	
	Part No. 100/Pack	Part No. 1000/Pack	Part No. 100/Pack	Part No. 1000/Pack
Clear Glass (Radius Bottom)	N6356478		N6356479	

### 6 mL Vial Description (22 mm x 38 mm)

Description	Crimp Top		Screw Top	
	Part No. 125/Pack	Part No. 1000/Pack	Part No. 100/Pack	Part No. 1000/Pack
Clear Glass (Radius Bottom)	N9302134*			

\*Use with Low-Volume Vial Adapter N6120110 in order to fit TurboMatrix 16, TurboMatrix 40, HS 40 (XL), HS 100 or HS 101.

Note: this vial and adaptor will not work with the TurboMatrix 110 headspace sampler. This vial replaces part number B0104235.

## Headspace Caps And Septa

Choose the right septa for your analysis. Although a wide variety of septa is available, chemical compatibility and temperature are the most critical to the analysis. Temperature applies not only to the vial, but also to the temperature of the instrument's needle used for pressurization and sample transfer, which is heated to prevent condensation. A needle temperature higher than the vial temperature setting can decompose the septum material. PTFE coated silicone and aluminum-coated silicone offer the highest temperature operating limits. (See Septa Recommended Chart for more details.)



Septa Type	Aluminum Caps (Pre-Assembled)	Crimp Top		Screw Top	
		Part No. 100/Pack	Part No. 1000/Pack	Part No. 100/Pack	Part No. 1000/Pack
Butyl (red)	Aluminum Cap, Star Spring and Septa	N9304143	N1010070		
Butyl (gray)	Aluminum Cap, Star Spring and Septa	N9306269	N9306268		
PTFE/Butyl (red)	Aluminum Cap, Star Spring and Septa	N9304144	B4000025		
PTFE/Butyl (gray)	Aluminum Cap, Star Spring and Septa	N9306265	N9306264		
PTFE/Butyl (gray)	Aluminum Cap		N9302981		
PTFE/Butyl (Pharma Fix Septa)	Aluminum Cap	N9306224			
PTFE/Red Rubber (red)	Aluminum Cap, Star Spring and Septa	N9304147	N9302978		
PTFE/Silicone (white)	Aluminum Cap, Star Spring and Septa	N9304146	B4000022		
PTFE/Silicone (white) Ultra Bleed	Aluminum, Skived Pressure Relief		N9302975		
PTFE/Silicone (white) Ultra Bleed	Aluminum, Skived (non-Pressure Relief)		N9302977		
PTFE/Silicone (natural) Extreme Bleed	Aluminum, Skived (non-Pressure Relief)		N9302976		
Aluminum/Silicone	Aluminum Cap, Star Spring and Septa	N9304145	B4000028		
Septa Type	Steel Magnetic Caps (Pre-Assembled)				
Butyl (gray)	Steel Magnetic Cap	N6356561			
PTFE/Butyl (red)	Steel Magnetic Cap			N9306076	
PTFE/Butyl (gray)	Steel Magnetic Cap	N6356560		N6356477	
PTFE/Butyl (blue)	Bi-Metal Magnetic Cap	N6356565			
PTFE/Butyl (Pharma Fix Septa)	Steel Magnetic Cap	N6356562			
PTFE/Silicone (red)	Steel Magnetic Cap			N6356474	
PTFE/Silicone (white)	Steel Magnetic Cap			N9306077	
PTFE/Silicone (natural)	Steel Magnetic Cap	N6356558			
PTFE/Silicone (blue)	Steel Magnetic Cap	N6356559		N6356475	
PTFE/Silicone (blue) SPME Liner	Steel Magnetic Cap	N6356564			
PTFE/Silicone (blue)	Bi-Metal Magnetic Cap	N6356566			
Aluminum/Silicone	Steel Magnetic Cap	N6356563			
Septa Type	Aluminum Caps (Un-Assembled)				
Butyl (red)	Aluminum Cap, Star Spring and Septa	B0159356	B0159357		
Butyl (gray)	Aluminum Cap, Star Spring and Septa	N9306270	N9306271		
Butyl (gray) Stopper	Aluminum Cap (Ridged)		N9303350		
Butyl (gray) Stopper	Aluminum Cap		B0110728		
Butyl (gray) Stopper		B0038137			
PTFE/Butyl (red)	Aluminum Cap, Star Spring and Septa	B0104239	B0104240		
PTFE/Butyl (gray)	Aluminum Cap, Star Spring and Septa	N9306266	N9306267		
PTFE/Red Rubber (red)	Aluminum Cap, Star Spring and Septa	N9302979	N9302980		
PTFE/Silicone (white)	Aluminum Cap, Star Spring and Septa	B0104241	B0104242		
Aluminum/Silicone	Aluminum Cap, Star Spring and Septa	B0104243	B0104244		
	Aluminum Cap	B0099814	N9302969		

### Cap and Septa Compatibility

Temperature Range	Aluminum/Silicone Up to 220 °C	PTFE/Silicone up to 210 °C	PTFE/Red Rubber up to 160 °C	PTFE/Butyl (Red or Gray) up to 130 °C	Red or Gray Butyl up to 130 °C
Use for multiple injections?	No	Yes	Yes	No	No
Price per 1000	Most Expensive	Expensive	Economical	Economical	Very Economical
Resistance to coring	Good	Excellent	Good	Low	Low
Recommended for storage	Yes	Yes	Yes	No	No

## Headspace Vial, Cap And Septa Convenience Kits

PerkinElmer understands your challenges and offers a variety of kits so that you can easily order and restock your laboratory supplies.



Septa Type	Cap Type	Vial Type	Crimp Top	
			Part No. 100/Pack	Part No. 500/Pack
Butyl (red)	Aluminum Cap, Star Spring and Septa	20 mL Crimp Top Clear Glass with Write on Patch and Fill Lines	N9303990	
Butyl (gray)	Aluminum Cap, Star Spring and Septa	20 mL Crimp Top Clear Glass with Write on Patch and Fill Lines	N9306269	
PTFE/Butyl (red)	Aluminum Cap, Star Spring and Septa	20 mL Crimp Top Clear Glass with Write on Patch and Fill Lines	N9303991	
PTFE/Butyl (gray)	Aluminum Cap, Star Spring and Septa	20 mL Crimp Top Clear Glass with Write on Patch and Fill Lines	N9306265	
PTFE/Silicone (natural)	Aluminum, Skived Pressure Relief (extreme bleed)	20 mL Crimp Top Clear Glass with Write-on Patch and Fill Lines (Flat Bottom)		N9300901
PTFE/Silicone (white)	Aluminum, Skived Pressure Relief (ultra bleed)	20 mL Crimp Top Clear Glass with Write-on Patch and Fill Lines (Flat Bottom)		N9300902
PTFE/Silicone (white)	Aluminum, Skived (ultra bleed)	20 mL Clear Glass with Write-on Patch and Fill Lines (Flat Bottom)		N9300903
PTFE/Silicone (white)	Aluminum Cap, Star Spring and Septa	20 mL Crimp Top Clear Glass with Write on Patch and Fill Lines	N9306292	
Aluminum/Silicone	Aluminum Cap, Star Spring and Septa	20 mL Crimp Top Clear Glass with Write on Patch and Fill Lines	N9303993	

Septa Type	Cap Type	Vial Type	Screw Top
			Part No. 100/Pack
PTFE/Silicone	Open Top Gray Polypropylene Screw Cap	40 mL Screw Top Clear Glass (24 mm x 98 mm)	N6352030
PTFE/Silicone	Open Top Gray Polypropylene Screw Cap	40 mL Screw Top Amber Glass (24 mm x 98 mm)	N6352031
PTFE/Silicone			N6352032
	Open Top Gray Polypropylene Screw Cap		N6352033*

\*N6352033 is only available in 72/pack



## Headspace Starter Kits

We offer a variety of headspace consumables so you can evaluate different types of septa and vials for your sampling requirements.



Kits Include:	Part No.	Headspace Starter Kit 500	Headspace Starter Kit 100	Headspace Mini StarterKit	Headspace Mini StarterKit 1000
		Part No. B0505601	Part No. N6710195	Part No. N6710197	Part No. N6710198
20 mm Hand Crimper	N9302785	1	1	1	1*
20 mL Clear Glass Crimp Top Vials	N9306079	500	500	100	1000
PTFE/Butyl (red) Septa with Pre-Assembled Aluminum Crimp Caps	B0104239	100	100	100	
PTFE/Silicone (white) Septa with Pre-Assembled Aluminum Crimp Caps	B0104241	100	100	100	1000
Aluminum/Silicone Septa with Pre-Assembled Aluminum Crimp Caps	B0104243	100	100	100	
20 mL Clear Glass Screw Top Vials	N9306075	500	100	100	
PTFE/Butyl (red) Septa with Steel Magnetic Screw Caps	N9306076	100	100	100	
PTFE/Silicone (white) Septa with Steel Magnetic Screw Caps	N9306077	100	100	100	
Needle Seal Assemblies	B0500833	2	2	2	
O-Rings	B0198110	10	10	10	
Pressure Gauge with Needle for Vials	B0501377	1	1	1	
Static Headspace GC Theory and Practice" book by B. Kolb and L. Ettre	N1011210	1	1		

\* This kit includes an Ergonomic Hand Crimper

# ELECTRONIC HANDHELD AND BENCHTOP

## Crimping Tools And Vial Accessories

Whatever your need may be, PerkinElmer offers a wide range of crimping tools for your convenience. Our universal voltage, precision control, power crimpers with adjustable settings are designed to deliver hundreds of crimps on a single battery charge.



### Headspace Crimper and Decapper Tools

Description	Quantity	Part #.
Benchtop Crimper	1	N6621006
Benchtop Crimper Jaws - 20 mm	1	N6621009
Electronic Hand Crimper - 20 mm	1	N9304501
Electronic Hand Decapper - 20 mm	1	N9304503
Manual Hand Crimper - 20 mm	1	N9302785
Manual Hand Crimper (Ergonomic) - 20 mm	1	N6621037
Manual Hand Decapper - 20 mm	1	N9301270
Manual Hand Decapper (Ergonomic) - 20 mm	1	N6621038



### Autosampler Crimper and Decapper Tools

Description	Quantity	Part #.
Benchtop Crimper	1	N6621006
Benchtop Crimper Jaws - 11 mm	1	N6621008
Electronic Hand Crimper - 11 mm	1	N9304500
Electronic Hand Decapper - 11 mm	1	N9304502
Manual Hand Crimper - 8 mm	1	N9306127
Manual Hand Crimper - 11 mm	1	00090699
Manual Hand Crimper (Ergonomic) - 11 mm	1	N6621035
Manual Hand Decapper - 11 mm	1	N9301390
Manual Hand Decapper (Ergonomic) - 11mm	1	N6621036



### Vial Racks

Description	Quantity	Part #.
11 mm Vial Rack - 50 Vial Capacity	1	N9301303
20 mm Vial Rack - 36 Vial Capacity	1	N9301304

# VERIFY QUANTIFY SIMPLIFY

## The Flexar SQ 300 MS

Ideal for a variety of analyses, this single quadrupole detector brings the unsurpassed sample insight of mass spectrometry to liquid chromatography applications. The Flexar SQ 300 MS™ is an integral part of the powerful and flexible Flexar LC product line. It features a revolutionary interchangeable probe and unique multi-stage ion path for exceptional sensitivity.

Measuring has never been easier with the Flexar SQ 300 MS. It provides the simplest route to exactly the information you need — quickly. As part of the Flexar LC platform, labs can expect exceptional chromatography coupled with an innovative rugged single quadrupole mass spectrometer that offers:

- Exceptional front-end chromatographic separation capabilities
- Flexible, modular components to suit any LC/MS analytical need
- The widest selection of operating pressures to address throughput needs

The Flexar SQ 300 MS has three ion source options that allow you to specifically address your analytical needs:

- Ultraspray™ Electrospray Interface (ESI)
- Dual-probe Ultraspray2™ (ESI)
- Atmospheric Pressure Chemical ionization (APCI)

Powered by the PerkinElmer Chromera® software, instrument control and data acquisition are faster and easier than ever.

### Calibration Vials and Caps

Description	Quantity	Part No.
50ML Polypropylene Calibration Vial	Each	MZ108391-5001
50ML Polypropylene Calibration Vial Cap	Each	MZ108391-5002



### Tuning and Calibration Reagents

Description	Size	Part No.
ESI Tuning and Calibration Reagent (Required for AxION TOF)	100 mL	ZG2421A
ESI Tuning and Calibration Reagent - low concentration (For AxION TOF)	100 mL	ZG196985000
APCI Tuning and Calibration Reagent (Required for APCI or DSA Sources with AxION TOF)	100 mL	MZ331300
APCI Tuning and Calibration Reagent - low concentration (For APCI, not recommended for DSA)	100 mL	MZ331301

### Calibration Solutions

Description	Part No.
Calibration Mix LC/MS (+) ION Mix	MZ301198
Calibration Mix LC/MS (-) ION Mix	MZ301199

### Test Kits

Description	Part No.
SQ300 Installation Performance Test Kit	MZ300061
SQ300 Customer Performance Test Kit	MZ300085
Caffeine Quantitative Test Kit	MZ300095
SQ300 ESI Positive and Negative Test Kit	MZ300096

### Spare Syringes and Needles (for Syringe Pump)

Description	Part No.
Hamilton 500uL Gas Tight Syringe (No Needle)	09220120
Hamilton Replacement 6-pack of Needles	09220122