

Sample Preparation





Sample Preparation

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SPE Cartridges



All cartridges are polypropylene and have polyethylene frits unless otherwise noted.



Resprep™ SPE Cartridges: Normal Phase

Hydrophilic (polar) adsorbents used to extract hydrophilic analytes from nonpolar matrices, such as organic solvents (e.g., polar contaminants from sample extracts).

| | 3mL/200mg (50-pk.) | 3mL/500mg (50-pk.) | 6mL/500mg (30-pk.) | 6mL/1000mg (30-pk.) | 6mL/1000mg (100-pk.) |
|--|-----------------------|-----------------------|-----------------------|------------------------|-------------------------|
| Florisol® (EPA SW 846 methods and CLP protocols) | — | 24031 | — | 24034 | 26205 |
| Silica (EPA SW 846 methods) | — | 24032* | 26086** | 26085** | — |
| | — | 24035 | — | 24038 | — |
| | — | 24036* | — | — | — |

*Teflon® frits

**Glass tubes with Teflon® frits

Resprep™ SPE Cartridges: Ion Exchange Phases

Ionized phases bonded to silica-based adsorbents used to extract positively- or negatively-charged analytes from aqueous matrices (e.g., tricyclic antidepressants from plasma).

| | 1mL/100mg (100-pk.) | 3mL/200mg (50-pk.) | 3mL/500mg (50-pk.) | 6mL/500mg (30-pk.) | 6mL/1000mg (30-pk.) |
|--------------------------------------|------------------------|-----------------------|-----------------------|-----------------------|------------------------|
| SAX, quaternary amine | 26054 | — | 26055 | — | — |
| SCX, propyl | 26056 | — | 26057 | — | — |
| SCX, benzene | — | 26058 | — | 26059 | 26060 |
| WAX, NH ₂ , primary amine | 26050 | 26051 | 26052 | 26053 | — |
| WCX, COOH, carboxylic acid | 26061 | — | 26062 | — | — |

Strong Anion Exchange (SAX); Strong Cation Exchange (SCX); Weak Anion Exchange (WAX); Weak Cation Exchange (WCX)

Resprep™ SPE Cartridges: Bonded Reversed Phases

Hydrophobic (nonpolar) silica-based adsorbents, used to extract hydrophobic analytes from polar matrices, such as water (e.g., pesticides from water).

| | 1mL/100mg (100-pk.) | 3mL/200mg (50-pk.) | 3mL/500mg (50-pk.) | 6mL/500mg (30-pk.) | 6mL/1000mg (30-pk.) | 20mL/5g (20-pk.) | 60mL/10g (16-pk.) |
|----------------------------|------------------------|-----------------------|-----------------------|-----------------------|------------------------|---------------------|----------------------|
| CL8 (high load, endcapped) | 26030 | 26031 | 24050 | 24052 | 24051 | 26034 | 26035 |
| C8 (high load, endcapped) | 26036 | 26037 | 26038 | 26039 | 26040 | — | — |
| Cyclohexyl (endcapped) | — | — | — | — | 26043 | — | — |

free sample

Free sample packs of SPE cartridges are available by adding -248 to the catalog number.



| | 6mL/500mg (50-pk.) |
|---------------------|-----------------------|
| DVB (Teflon® frits) | 25989 |



Lydia Nolan

Innovations Chemist
10+ years of service!

CarboPrep™ SPE Cartridges

- Improved recovery of sulfonyleurea herbicides, phenols, carbamates, and triazine herbicides, compared to C18 and C8 cartridges.
- Wide range of selectivity for both analytes and their metabolites or degradation products.
- Rapid sampling flow rates; uncompromised recoveries.
- Maximum capacity for contaminant cleanup.
- Controlled manufacturing improves cleanliness and ensures reproducible performance.

CarboPrep™ cartridges are manufactured from chromatographic-grade, nonporous, graphitized carbon. Our manufacturing process minimizes variability and improves recovery and cleanup procedures. We offer two types of carbons: CarboPrep™ 90 has a surface area of approximately 90m²/g, CarboPrep™ 200 has a surface area of 200m²/g. Both have higher capacity than silica-based packings for a variety of compounds.

CarboPrep™ cartridges can be used for both sample extraction of organic compounds and extract cleanup of matrix interferences.

| SPE Cartridge | Tube Volume, Bed Weight | qty. | cat# |
|----------------|----------------------------|--------|-------|
| CarboPrep™ 90 | 3mL, 250mg | 50-pk. | 26091 |
| CarboPrep™ 90 | 6mL, 500mg | 30-pk. | 26092 |
| CarboPrep™ 200 | 3mL, 250mg | 50-pk. | 26088 |
| CarboPrep™ 200 | 6mL, 500mg | 30-pk. | 26087 |

CarboPrep™ Reversing SPE Cartridges

- High adsorbent capacity (surface area ~ 200m²/g) for large volume sampling.
- Chromatographic grade graphitized carbon provides consistent and quantitative recoveries of a wide variety of semivolatiles, pesticides and herbicides.
- 500mg bed weight (100mg and 900mg bed weights available on request).

Reversing cartridge design allows convenient inverted elution of strongly retained analytes using minimum solvent volumes. Ideal design for extraction of pesticides in water.¹

| SPE Cartridge | Bed Weight | qty. | cat# |
|------------------------------------|------------|--------|-------|
| CarboPrep™ 200 Reversing Cartridge | 500mg | 30-pk. | 26206 |

¹Crescenzi, C.; DiCorcia, A.; Guerriero, E.; and Saperi, R. "Development of a Multi-residue Method for Analyzing Pesticide Traces in Water Based on Solid-Phase Extraction and Electro-spray Liquid Chromatography Mass Spectrometry", *Environmental Science & Technology* vol.31, no. 2 (1997) 479-488.

Closed End SPE Cartridge: Activated Sodium Sulfate

- High quality anhydrous sodium sulfate.
- Approximately 1gram prepackaged in a convenient capped cartridge with both male and female luer ends for easy connection to a variety of devices or equipment.
- The adsorbent is fully activated and ready to use for removal of excess water from small volumes of organic solvent solutions, prior to many types of analysis.
- Capped cartridges will remain active for long periods of storage in the lab.

| SPE Cartridge | Bed Weight | qty. | cat# |
|--------------------------|------------|--------|-------|
| Activated Sodium Sulfate | 1000mg | 50-pk. | 26207 |

for **more info**

For cartridge components, see **page 373**.

new!



please **note**

If you need a custom SPE cartridge, contact our Technical Service chemists or your Restek representative.

new!



SPE Cartridges

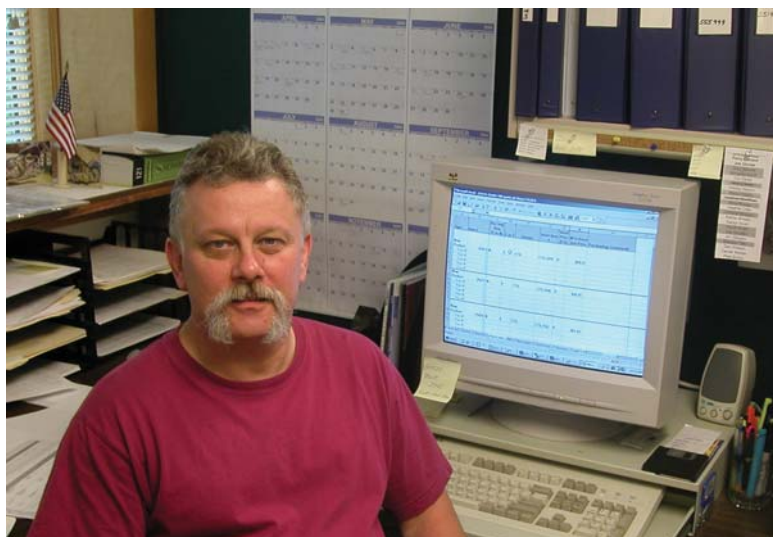
Method Specific SPE Cartridges

These cartridges have been specifically designed to provide consistent and reproducible results for the method stated.

| Description | Applications | Tube Volume, Bed Weight | qty. | cat.# |
|--|--|----------------------------|------------------|----------------|
| Massachusetts EPH | Extraction of hexane-extractable petroleum hydrocarbons from soil and waste samples. Specially treated to reduce contaminants and increase capacity. Silica packing. | 20mL, 5g | 20-pk. | 26065 |
| EPA Method 521 | For use in EPA Method 521: Nitrosamines in Drinking Water. This method calls for large volume injection and CI/MS/MS. Activated charcoal packing for NDMA. | 6mL, 2g | 30-pk. | 26032 |
| EPA Method 548.1 | Extraction of endothal from aqueous samples. Weak anion exchange resin (BioRex 5) packing. | 6mL | 30-pk. | 26063 |
| EPA Method 549.2 (Ultra Quat SPE) | For use in HPLC analysis of paraquat/diquat. For an HPLC column developed specifically for this application, see the Ultra HPLC columns pages of this catalog. | 6mL, 500mg | 30-pk. | 25499 |
| EPA Method 552.1 | Extraction of haloacetic acids from aqueous samples. Strong anion exchange resin (Ag 1x8) packing. | 1mL | 100-pk. | 26064 |
| EPA Method 8321 (AH SPE) | For use in HPLC analysis of phenoxy acid herbicides. | 6mL, 500mg | 30-pk. | 26029 |
| Organo Tin | High-capacity clean-up of butyl and phenyl tin compounds from soil, water, and biota. Mixed bed. | 60mL | 16-pk. | 24049 |
| Drug Prep I | Suitable for acidic, basic, and neutral drugs. Mixed-mode hydrophobic and ion exchange sites provide selective, reproducible extraction of biological samples containing therapeutic or illegal drugs. | 3mL, 200mg 10mL, 200mg | 50-pk. 50-pk. | 26044 26045 |
| Drug Prep II | Extraction of THCA from biological samples. Copolymeric anion exchange sites provide selective, reproducible extraction of THCA from urine. | 3mL, 200mg 10mL, 200mg | 50-pk. 50-pk. | 26046 26047 |
| GHB new! | Extraction of γ -hydroxybutyric acid from biological samples. Provides reproducible extraction of GHB from urine, blood, or tissue without conversion to GBL (γ -butyrolactone). | 10mL, 200mg | 50-pk. | 26208 |
| RDX | Extraction of explosive compounds (similar to EPA Method 8095 and 8330 list) from water samples. | 6mL, 500mg | 30-pk. | 26093 |

free sample

Free sample packs of SPE cartridges are available by adding -248 to the catalog number.



Perry Cahoon, Buyer/Planner

QuEChERS SPE Tubes

- Fast, simple sample cleanup.
- Fourfold increases in sample throughput.
- Fourfold decreases in material cost.
- Convenient, ready to use centrifuge tubes with ultra pure, preweighed adsorbent mixes.

Quick, Easy, Cheap, Effective, Rugged, and Safe, the QuEChERS (“catchers”) method, developed by the USDA Eastern Regional Research Center¹, has become very popular for extraction and clean-up of pesticide residue samples. Our products are available in two dispersant-centrifuge tube sizes to meet the needs of a wide variety of sample matrices.

| AOAC Method 2007.1 | Benefits/Uses | qty. | cat# |
|--|---|---------|-------|
| 2mL QuEChERS SPE Micro-Centrifuge Tube Contains 150mg Magnesium Sulfate and 50mg PSA | Cleanup of agricultural produce extracts, 1mL sample volume. | 100-pk. | 26124 |
| 2mL QuEChERS SPE Micro-Centrifuge Tube Contains 150mg Magnesium Sulfate, 50mg PSA, and 50mg Graphitized Carbon | Cleanup of 1mL sample extract with residual pigments and sterols. | 100-pk. | 26123 |
| 2mL QuEChERS SPE Micro-Centrifuge Tube Contains 150mg Magnesium Sulfate, 50mg PSA, and 50mg C18 | Cleanup of 1mL sample extract with residual fat. | 100-pk. | 26125 |
| 15mL QuEChERS SPE Centrifuge Tube Contains 900mg Magnesium Sulfate, 300mg PSA, and 150mg Graphitized Carbon | Cleanup of 6mL sample extract with residual pigments and sterols. | 50-pk. | 26126 |

1. Anastassiades, M., S.J. Lehotay, D. Stajnbaher, F.J. Schenck, "Fast and Easy Multiresidue Method Employing Acetonitrile Extraction/Partitioning and "Dispersive Solid-Phase Extraction" for the Determination of Pesticide Residues in Produce", *J AOAC International*, 2003, vol 86 no 22, pp 412-431.

Reference not available from Restek.



also **available**

Custom adsorbent mix combinations available upon request.

SAMPLE PREPARATION

Pesticide Residue Cleanup SPE Cartridges

- Convenient, multiple adsorbent beds in a single cartridge.
- For use in multiple-residue pesticide analysis, to remove matrix interferences.

| SPE Cartridge | qty. | cat# |
|---|--------|-------|
| 6mL Combo SPE Cartridge, Packed with 500mg CarboPrep™ 90/500mg Aminopropyl, Polyethylene Frits | 30-pk. | 26193 |
| 6mL Combo SPE Cartridge, Packed with 500mg CarboPrep™ 90/500mg PSA, Polyethylene Frits | 30-pk. | 26194 |
| 6mL SPE Cartridge, Packed with 500mg PSA, Polyethylene Frits | 30-pk. | 26195 |
| 6mL Combo SPE Cartridge, Packed with 200mg CarboPrep™ 200 and 400mg PSA, Teflon® Frits | 30-pk. | 26127 |
| 6mL Combo SPE Cartridge, Packed with 250mg CarboPrep™ 200 and 500mg PSA, Teflon® Frits | 30-pk. | 26128 |
| 6mL Combo SPE Cartridge, Packed with 500mg CarboPrep™ 200 and 500mg PSA, Teflon® Frits | 30-pk. | 26129 |

**did you know?**

Multiple sorbents are used to extract different types of interferences.

| | |
|-------------------|---|
| MgSO ₄ | removes excess water |
| PSA* | removes sugars, fatty acids, organic acids, and anthocyanine pigments |
| C18 | removes nonpolar interferences |
| Carbon | removes pigments, sterols, and nonpolar interferences |

*PSA—primary and secondary amine exchange material.

Bulk Adsorbents

new!

Sodium Sulfate

- Ideal for removing water from sample extracts.
- Requires activation before use.
- Packaged in recloseable 5kg buckets.

Anhydrous sodium sulfate is the most common drying agent used to remove moisture from sample extracts. We package our 60 mesh material in recloseable buckets.

| Description | qty. | cat.# |
|----------------|------|-------|
| Sodium Sulfate | 5kg | 26204 |

Florisil® PR

- Pesticide residue grade.
- Each lot certified to meet AOAC method requirements.
- Packaged in glass containers.

Florisil® PR is commonly used to remove polar interferences from pesticide residues. This bulk material is ideal for labs packing their own chromatography columns for pesticide residue extractions.

| Description | qty. | cat.# |
|---------------------------|--------|-------|
| Florisil® PR, 60/100 mesh | 500gms | 26135 |

Granulated Activated Copper

- Convenient form for removing sulfur from environmental extracts.
- Acidified and activated—ready for use.

Activated copper effectively removes elemental sulfur from environmental extracts. Our acid-washed and activated material can be used right out of the package. The 30 mesh granular material eliminates the potential for fine copper particles in filtered extracts.

| Description | qty. | cat.# |
|--------------------------------------|------|-------|
| Granulated Activated Copper, 30 mesh | 1kg | 26136 |

Ottawa Sand

- Sample medium for matrix spikes and laboratory control blanks.
- Packaged in convenient 5kg buckets.

Ottawa sand is listed in several US EPA methods as the specified medium for matrix spike and laboratory control blanks.

| Description | qty. | cat.# |
|-------------|------|-------|
| Ottawa Sand | 5kg | 26137 |

Diatomaceous Earth

- Improves extraction efficiency.
- Adsorbs moisture from samples.

Diatomaceous earth is used as a filter aid to improve extraction efficiency of densely packed soils, such as clays. By mixing the sample with diatomaceous earth, recoveries can be improved and excess moisture can be absorbed. We package our 30/40 mesh material in a convenient 1kg quantity.

| Description | Similar to Dionex part # | qty. | cat.# |
|--------------------------------|--------------------------|------|-------|
| Diatomaceous Earth, 30/40 mesh | 062819 | 1kg | 26033 |



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Customer Service
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Resprep™-C18 and Resprep™-C8 SPE Disks

- Glass fiber disks embedded with C18 or C8 bonded silica.
- Extract semivolatile organic compounds.
- Deep-pore design reduces clogging and allows faster flow rates.
- Meet requirements for EPA Methods 525.1, 506, 550.1, and 549.1.
- Lower cost than Teflon® disks.

| Description | qty. | cat.# |
|-----------------------------|--------|-------|
| Resprep™-C8 47mm SPE Disks | 24-pk. | 24048 |
| Resprep™-C18 47mm SPE Disks | 20-pk. | 24004 |
| Resprep™-C18 90mm SPE Disks | 12-pk. | 25988 |

Resprep™ Oil & Grease SPE Disks

- 47mm glass fiber disks embedded with specialty bonded silica.
- Meet requirements for EPA Method 1664.*
- Reduce emulsion formation and amount of solvent required by previous EPA methods.
- No chlorofluorocarbons needed.

| Description | qty. | cat.# |
|---------------------------------|--------|-------|
| Resprep™ Oil & Grease SPE Disks | 20-pk. | 26022 |

*A sodium sulfate drying tube and a 0.45µm PTFE syringe filter (cat.# 26145, page 373) also may be used.

Resprep™ SPE Flow Filters

- Designed specifically to improve flow when filtering oil and grease samples.
- Use with Resprep™ Diskcover-47 reservoir, or any 47mm glass sample reservoir.

| Description | qty. | cat.# |
|---------------------------|--------|-------|
| Resprep™ SPE Flow Filters | 20-pk. | 26024 |

Resprep™ Resin SPE Disks

- 47mm glass fiber disks embedded with styrene/DVB resin.
- For chlorinated, benzidine-containing, or nitrogen-containing pesticides.
- Meet requirements of EPA Methods 515.2 and 553.

| Description | qty. | cat.# |
|--------------------------|--------|-------|
| Resprep™ Resin SPE Disks | 20-pk. | 26023 |

Parts for Diskcover-47 Extraction System

Diskcover-47 Extraction Disk Holder

- Compatible with most vacuum manifold systems that accept 1/8-inch male luer fittings.
- Sample can be automatically introduced via 1/8-inch Teflon® tubing or from the optional Diskcover-47 reservoir.

| Description | qty. | cat.# |
|--|-------|-------|
| Diskcover-47 Extraction Disk Holder | ea. | 24020 |
| Diskcover-47 Extraction Disk Holder | 6-pk. | 24021 |
| Teflon® Tube Luer Adaptors (1/8" OD) | 6-pk. | 24017 |
| Teflon® Sample Tubing (2ft./0.6m, 1/8" OD) | 6-pk. | 24025 |

Diskcover-47 Reservoir*

The Diskcover-47 open-top reservoir allows you to pour up to 125mL of sample directly onto the filter disk holder. It easily installs on top of the Diskcover-47 extraction disk holder.

| Description | qty. | cat.# |
|------------------------|-------|-------|
| Diskcover-47 Reservoir | ea. | 24029 |
| Diskcover-47 Reservoir | 6-pk. | 24030 |
| Teflon® O-Ring** | ea. | 24027 |
| Teflon® O-Ring** | 6-pk. | 24028 |

*Must be used with the Diskcover-47 extraction disk holder.

**Order when using PTFE extraction filters.



Resprep™ disks & flow filters extract analytes of interest at high flow rates, and significantly reduce clogging.

also available

For an alternative membrane filtration system, see [page 349](#).



Resprep™ SPE Manifolds, Vacuum/Pressure Unit



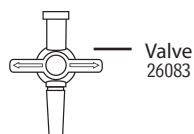
Resprep™ 12-Port SPE Manifold

Resprep™ 12- or 24-Port SPE Manifolds

- Use with any standard male luer-end SPE cartridges.
- Inert, Teflon® sample guides reduce cross-contamination and carryover.
- Flexible sample collection rack will accommodate a variety of receiving vessels.
- Quick vacuum-release valve for better system control.
- Individual vacuum control for each cartridge—improves reproducibility.

SAMPLE PREPARATION

Resprep™ Manifold Replacement Parts



Valve
26083



Valve
Attachment
26130

Manifold Lid



Needle
Attachment
26131



Sample
Guide
26084



Description

| Description | qty. | cat.# |
|---|------|-------|
| Complete Resprep™ 12-Port SPE Manifold (includes glass basin with built-in vacuum regulator, polypropylene lid with 12 individual control valves, 12-position collection rack, 12 Teflon® sample guides, and waste container) | kit | 26077 |
| Complete Resprep™ 24-Port SPE Manifold (includes glass basin with built-in vacuum regulator, polypropylene lid with 24 individual control valves, 24-position collection rack, and 24 Teflon® sample guides) | kit | 26080 |

Resprep™ Manifold Replacement Parts and Accessories

| Description | qty. | cat.# |
|--|--------|-------|
| Replacement Waste Container, 12-port new! | ea. | 24014 |
| Collection Rack | | |
| Collection Rack, 12-port | ea. | 26079 |
| Collection Rack, 24-port | ea. | 26082 |
| Manifold Lid | | |
| Replacement Manifold Lid, 12-port (sample guides not included) | ea. | 26078 |
| Replacement Manifold Lid, 24-port (sample guides not included) | ea. | 26081 |
| Manifold Lid Replacement Parts | | |
| Valves, 12 or 24-port | 2-pk. | 26083 |
| Valve Attachment | 48-pk. | 26130 |
| Needle Attachment | 48-pk. | 26131 |
| Sample Guides, 12 or 24-port | 12-pk. | 26084 |

*Not included in 24-port manifold (cat.# 26080 or 26082).



Oil-Free Vacuum/Pressure Station for 12-Port Resprep™ SPE Systems

Allows switching from pressure to vacuum in a matter of seconds. Quiet, oil-free unit won't contaminate the extraction system or your samples. Provides 20" Hg (68kPa) vacuum or 18psi (124kPa) pressure.

| Description | qty. | cat.# |
|---|------|-------|
| Oil-Free Vacuum/Pressure Station (115V) | ea. | 24002 |
| Oil-Free Vacuum/Pressure Station (220V) | ea. | 24003 |
| Vacuum Tubing (10ft./3m, 1/4" ID) | ea. | 24016 |

Not recommended for use with 24-port manifold; not available for 220VAC power outlets.

Syringe Filters

- Variety of filter types, porosities, and diameters.
- Color coded for easy identification.
- Reusable storage container for 100-pk.
- 500- and 1,000- pack sizes for greater savings.



| Size | Porosity | Color | 100-pk. cat.# | 500-pk. cat.# | 1,000-pk. cat.# |
|---|----------|--------|------------------|------------------|--------------------|
| Nylon | | | | | |
| 13mm | 0.22µm | yellow | 26146 | | 26200 |
| 13mm | 0.45µm | pink | 26147 | | 26201 |
| 25mm | 0.22µm | yellow | 26148 | 26202 | |
| 25mm | 0.45µm | pink | 26149 | 26203 | |
| PTFE (polytetrafluoroethylene) | | | | | |
| 13mm | 0.22µm | purple | 26142 | | 26196 |
| 13mm | 0.45µm | orange | 26143 | | 26197 |
| 25mm | 0.22µm | purple | 26144 | 26198 | |
| 25mm | 0.45µm | orange | 26145 | 26199 | |
| PVDF (polyvinylidene difluoride) | | | | | |
| 13mm | 0.22µm | black | 26150 | new! | 26154 |
| 13mm | 0.45µm | red | 26151 | | |
| 25mm | 0.22µm | black | 26152 | | |
| 25mm | 0.45µm | red | 26153 | | |

Nylon, PVDF - hydrophilic applications

PTFE - hydrophobic applications

free sample

Free sample packs of syringe filters are available by adding -248 to the catalog number.

Resprep™ SPE Tubes, Frits, & Caps

| Empty Tubes (polypropylene) | Volume | qty. | cat.# |
|-----------------------------|----------------------------|---------|-------|
| | 1mL | 50-pk. | 26010 |
| | 3mL | 50-pk. | 26011 |
| | 6mL | 50-pk. | 26012 |
| | 15mL | 50-pk. | 26013 |
| | sample reservoir, 25mL | 12-pk. | 26014 |
| | sample reservoir, 70mL | 12-pk. | 26015 |
| Frits (polyethylene) | Fits Tube Volume, Diameter | qty. | cat.# |
| | 1mL, 6mm | 100-pk. | 26016 |
| | 3mL, 9mm | 100-pk. | 26017 |
| | 6mL, 1.2cm | 100-pk. | 26018 |
| | 15mL, 1.6cm | 100-pk. | 26019 |
| | 25mL, 2.0cm* | 100-pk. | 26020 |
| | 70mL, 2.6cm** | 100-pk. | 26021 |
| Tube Caps | Fits Tube Volume | qty. | cat.# |
| | 1mL | 12-pk. | 26001 |
| | 3mL | 12-pk. | 26002 |
| | 6mL | 12-pk. | 26003 |
| | 15mL | 12-pk. | 26004 |
| | 25mL* | 12-pk. | 26005 |
| | 70mL** | 12-pk. | 26006 |



Empty Tube



Frits



Tube Caps

Resprep™ SPE Connectors & End Caps

| Connectors | Fits Tube Volume | qty. | cat.# |
|----------------------|------------------|--------|-------|
| | 1, 3, 6, 15mL | 12-pk. | 26007 |
| | 25mL* | 12-pk. | 26008 |
| | 70mL** | 12-pk. | 26009 |
| Female Luer End Caps | universal | 12-pk. | 26000 |



Connectors

*For 20mL packed tubes.

**For 60mL packed tubes.

Parts for ASE® Systems

Accelerated solvent extraction has become a common technique for fast and reliable extraction of organic materials from solid matrices, using EPA SW-846 Method 3545, Pressurized Fluid Extraction (PFE). Restek offers a wide range of replacement parts to keep your extraction system running smoothly. All parts are economically priced to save you money and are designed to meet or exceed the performance of the original manufacturer's parts.

For handy tools designed for use with ASE® systems, see page 377. For diatomaceous earth and sodium sulfate, see page 370.

Replacement Parts for ASE® 200 Systems, Manufacturer's Design

(See page 376 for Restek-enhanced design extraction cell parts.)

Extraction Cell Parts for ASE® 200 Systems

- Choose original equipment-equivalent stainless steel, or Siltek® deactivation for improved inertness.
- Inner surfaces polished, for easier cleaning.
- Caps include frit, washer, PTFE O-ring, and threaded insert.

| Description | Similar to | | Stainless Steel | | Siltek® Treated | |
|---|---------------|--------|-----------------|--------|-----------------|--|
| | Dionex part # | qty. | cat.# | qty. | cat.# | |
| Extraction Cell Body for ASE® 200, 1mL | 054973 | ea. | 26110 | ea. | 26111 | |
| Extraction Cell Body for ASE® 200, 5mL | 054974 | ea. | 26112 | ea. | 26113 | |
| Extraction Cell Body for ASE® 200, 11mL | 048820 | ea. | 26114 | ea. | 26115 | |
| Extraction Cell Body for ASE® 200, 22mL | 048821 | ea. | 26098 | ea. | 26099 | |
| Extraction Cell Body for ASE® 200, 33mL | 048822 | ea. | 26116 | ea. | 26117 | |
| Replacement Extraction Cell End Caps for ASE® 200 | 049450 | 2-pk. | 26096 | 2-pk. | 26097 | |
| Cap Inserts for ASE® 200 | | 2-pk. | 26166 | | | |
| Replacement Frits for ASE® 200 | 049453 | 10-pk. | 26100 | 10-pk. | 26101 | |

| Description | Similar to | | |
|---|---------------|---------|-------|
| | Dionex part # | qty. | cat.# |
| Snap Rings for Caps for ASE® 200 | 049456 | 10-pk. | 26184 |
| Funnel for ASE® 200 | 056958 | ea. | 26180 |
| PTFE O-Rings for ASE® 200 & ASE® 300 Caps | 049457 | 100-pk. | 26187 |
| Viton® O-Rings for ASE® 200 & ASE® 300 Caps | 056325 | 50-pk. | 26188 |

PEEK™ Washers for ASE® 200 Systems

- Meet original equipment manufacturer's performance.
- Available in 3 quantities.

20mm Filters for ASE® 200 Extraction Cells

- Cellulose or glass fiber construction.
- Cellulose filters available in economical 1000-packs.

| Description | Similar to Dionex part # | qty. | cat.# |
|----------------------------------|--------------------------|----------|-------|
| Cellulose Filters for ASE® 200 | 049458 | 100-pk. | 26118 |
| Cellulose Filters for ASE® 200 | 049458 | 1000-pk. | 26190 |
| Glass Fiber Filters for ASE® 200 | 047017 | 100-pk. | 26119 |

60mL Sample Collection Vials for ASE® 200 Systems

- Cleaned, assembled, and ready to use.
- Clear or amber glass.
- Caps and Teflon®-lined septa included.

| Description | Similar to Dionex part # | qty. | cat.# |
|--|--------------------------|---------|-------|
| 60mL Collection Vials, Clear Glass, for ASE® 200 | 048784 | 72-pk. | 26121 |
| 60mL Collection Vials, Amber Glass, for ASE® 200 | 048781 | 72-pk. | 26122 |
| Replacement Septa for 20, 40 & 60mL Vials and 250mL Bottles (24mm Teflon®-lined 0.125" silicone septa) | — | 100-pk. | 24694 |



Cap Inserts for ASE® 200



Funnel for ASE® 200



Replacement Parts for ASE® 300/100 Systems, Manufacturer's Design

For handy tools designed for use with ASE® systems, see page 377. For diatomaceous earth and sodium sulfate, see page 370.

Extraction Cell Parts for ASE® 300/100 Systems

- Choose original equipment-equivalent stainless steel, or Siltek® deactivation for improved inertness.
- Inner surfaces polished, for easier cleaning.
- Caps include frit, washer, PTFE O-ring, and threaded insert.

| Description | Similar to Dionex part # | Stainless Steel | | Siltek® Treated | |
|---|-----------------------------|-----------------|-------|-----------------|-------|
| | | qty. | cat.# | qty. | cat.# |
| Extraction Cell Body for ASE® 100, 10mL | 059793 | ea. | 26172 | ea. | 26173 |
| Extraction Cell Body for ASE® 300/100, 34mL | 056646 | ea. | 26176 | ea. | 26177 |
| Extraction Cell Body for ASE® 300/100, 66mL | 056696 | ea. | 26178 | ea. | 26179 |
| Extraction Cell Body for ASE® 300/100, 100mL | 056693 | ea. | 26132 | ea. | 26133 |
| Replacement Extraction Cell End Caps for ASE® 300 | 056921 | 2-pk. | 26170 | 2-pk. | 26171 |
| Cap Inserts for ASE® 300 | | 2-pk. | 26167 | | |
| Replacement Frits for ASE® 300/100 | | 6-pk. | 26174 | 6-pk. | 26175 |

| Description | Similar to Dionex part # | qty. | cat.# |
|---|-----------------------------|---------|-------|
| | | | |
| Funnel for ASE® 300/100 | 056699 | ea. | 26169 |
| PTFE O-Rings for ASE® 200 & ASE® 300 Caps | 049457 | 100-pk. | 26187 |
| Viton® O-Rings for ASE® 200 & ASE® 300 Caps | 056325 | 50-pk. | 26188 |



Cap Inserts for ASE® 300



Funnel for ASE® 300



PTFE O-Rings for ASE® 200/300



Viton® O-Rings for ASE® 200/300

PEEK™ Washers for ASE® 300/100 Systems

- Meet original equipment manufacturer's performance.
- Available in 2 quantities.

| Description | Similar to Dionex part # | 12-pk. | 48-pk. |
|--------------------------------|--------------------------|--------|--------|
| PEEK™ Washers for ASE® 300/100 | 061687 | 25393 | 25394 |



30mm Filters for ASE® 300/100 Extraction Cells

- Cellulose or glass fiber construction.

| Description | Similar to Dionex part # | qty. | cat.# |
|------------------------------------|--------------------------|---------|-------|
| Cellulose Filters for ASE® 300/100 | 056780 | 100-pk. | 26168 |
| Glass Filters for ASE® 300/100 | 056781 | 100-pk. | 26189 |



250mL Sample Collection Bottles for ASE® 300/100 Systems

- Cleaned, assembled, and ready to use.
- Clear glass.
- Caps and Teflon®-lined septa included.

| Description | Similar to Dionex part # | qty. | cat.# |
|--|--------------------------|---------|-------|
| 250mL Collection Bottles, Clear Glass, for ASE® 300/100 | 056284 | 12-pk. | 26191 |
| Replacement Septa for 20, 40 & 60mL Vials and 250mL Bottles (24mm Teflon®-lined 0.125" silicone septa) | — | 100-pk. | 24694 |



SAMPLE PREPARATION



- Choose stainless steel or Siltek® deactivation for improved inertness.
- Caps include frit, PEEK™ seal, and PTFE O-ring.



please note

Resprep™ designed parts are not interchangeable with Dionex designed parts.



Replacement Parts for ASE® 200 Systems, Restek Enhanced Design

Resprep™ Extraction Cell Parts for ASE® 200 Systems, Restek Enhanced Design

- Simpler design with fewer parts.
- Faster installation.
- Easier cleaning.
- More cost effective than original equipment design.

To simplify replacing the frit and PEEK™ washer in the ASE® 200 extraction cell cap, we developed an enhanced cell design that eliminates the snap ring. The frit presses snugly into a groove in a PEEK™ washer design that fits into a recessed cavity in the enhanced extraction cell.

These Restek replacement parts will keep your extraction system running smoothly. All parts are economically priced to save you money and are designed to meet or exceed the performance of the original manufacturer's parts.

| Description | Stainless Steel | | Siltek® Treated | |
|---|-----------------|-------|-----------------|-------|
| | qty. | cat.# | qty. | cat.# |
| Extraction Cell Kit, Resprep™ for ASE® 200, 1mL | kit | 25980 | kit | 25981 |
| Extraction Cell Kit, Resprep™ for ASE® 200, 5mL | kit | 25982 | kit | 25983 |
| Extraction Cell Kit, Resprep™ for ASE® 200, 11mL | kit | 25984 | kit | 25985 |
| Extraction Cell Kit, Resprep™ for ASE® 200, 22mL new! | kit | 25976 | kit | 25977 |
| Extraction Cell Kit, Resprep™ for ASE® 200, 33mL | kit | 25986 | kit | 25987 |
| Extraction Cell Body, Resprep™ for ASE® 200, 1mL | ea. | 25960 | ea. | 25961 |
| Extraction Cell Body, Resprep™ for ASE® 200, 5mL | ea. | 25962 | ea. | 25963 |
| Extraction Cell Body, Resprep™ for ASE® 200, 11mL | ea. | 25964 | ea. | 25965 |
| Extraction Cell Body, Resprep™ for ASE® 200, 22mL new! | ea. | 25978 | ea. | 25979 |
| Extraction Cell Body, Resprep™ for ASE® 200, 33mL | ea. | 25966 | ea. | 25967 |
| Extraction Cell Caps, Resprep™ for ASE® 200 | 2-pk. | 25968 | 2-pk. | 25969 |
| PEEK™ Seal/Frit Assembly, Resprep™ for ASE® 200 | 2-pk. | 25970 | 2-pk. | 25971 |
| Frit, Resprep™ for ASE® 200 | 12-pk. | 25972 | 12-pk. | 25973 |

| Description | qty. | cat.# |
|---|---------|-------|
| PEEK™ Seal, Resprep™ for ASE® 200 | 12-pk. | 25974 |
| PEEK™ Seal, Resprep™ for ASE® 200 | 48-pk. | 25975 |
| Funnel, Resprep™ for ASE® 200 new! | ea. | 24099 |
| PTFE O-Rings for ASE® 200 & ASE® 300 Caps | 100-pk. | 26187 |
| Viton® O-Rings for ASE® 200 & ASE® 300 Caps | 50-pk. | 26188 |

20mm Filters for ASE® 200 Extraction Cells

- Cellulose or glass fiber construction.
- Cellulose filters available in economical 1000-packs.

| Description | Similar to Dionex part # | qty. | cat.# |
|----------------------------------|--------------------------|----------|-------|
| Cellulose Filters for ASE® 200 | 049458 | 100-pk. | 26118 |
| Cellulose Filters for ASE® 200 | 049458 | 1000-pk. | 26190 |
| Glass Fiber Filters for ASE® 200 | 047017 | 100-pk. | 26119 |

60mL Sample Collection Vials for ASE® 200 Systems

- Cleaned, assembled, and ready to use.
- Clear or amber glass.
- Caps and Teflon®-lined septa included.

| Description | Similar to Dionex part # | qty. | cat.# |
|--|--------------------------|---------|-------|
| 60mL Collection Vials, Clear Glass, for ASE® 200 | 048784 | 72-pk. | 26121 |
| 60mL Collection Vials, Amber Glass, for ASE® 200 | 048781 | 72-pk. | 26122 |
| Replacement Septa for 20, 40 & 60mL Vials and 250mL Bottles (24mm Teflon®-lined 0.125" silicone septa) | — | 100-pk. | 24694 |

Resprep™ Tools for ASE® Systems

- Specialized tools that simplify routine chores.
- Use with ASE® 100, ASE® 200, or ASE® 300 systems.

2-in-1 Filter/O-Ring Insertion Tool Kit for ASE® 100/200/300

Inserting a Filter (ASE® 100/200/300 systems), Using Filter Insertion Attachments on Resprep™ Tool Handle.



Screw the appropriate size attachment onto the end of the Resprep™ Tool Handle.



Place a filter at the top of the extraction cell.



Push the filter to the bottom of the extraction cell.



2-in-1 Filter/O-Ring Insertion Tool Kit

Inserting an O-Ring (ASE® 100/200/300 systems), Using Resprep™ Tool Handle.



Place the O-ring over the tip of the tool.



Insert the tool into the center hole of the extraction cell cap.



Press the tool firmly inside the cap until the O-ring snaps into place.



Resprep™ Tool Handle



Filter Insertion Attachments

Description

| Description | qty. | cat.# |
|---|-------------|-------|
| 2-in-1 Filter/O-Ring Insertion Tool Kit for ASE® 100/200/300 (includes Resprep™ Tool Handle and Filter Insertion Attachments) | kit | 26181 |
| Resprep™ Tool Handle for ASE® 100/200/300 | ea. | 26182 |
| Filter Insertion Attachments for ASE® 100/200/300 (1mL, 5mL, 11mL, 33mL) | 4-piece set | 26183 |

Internal Retaining Ring Pliers for ASE® 100/200/300 Systems

Description

| Description | qty. | cat.# |
|---|------|-------|
| Internal Retaining Ring Pliers for ASE® 100/200/300 Systems | ea. | 26185 |



Diatomaceous Earth

- Improves extraction efficiency.
- Adsorbs moisture from samples.

Diatomaceous earth is used as a filter aid to improve extraction efficiency of densely packed soils, such as clays. By mixing the sample with diatomaceous earth, recoveries can be improved and excess moisture can be absorbed. We package our 30/40 mesh material in a convenient 1kg quantity.



Description

| Description | Similar to Dionex part # | qty. | cat.# |
|--------------------------------|--------------------------|------|-------|
| Diatomaceous Earth, 30/40 mesh | 062819 | 1kg | 26033 |