

## Solid Phase Extraction

Supelclean™ ENVI and Supelclean™ SPE: Supelclean™ ENVI-Carb SPE Products

## Supelclean™ ENVI-Carb SPE Products



Graphitized Non-Porous Carbon

**Retention Mechanism:** Reversed-phase**Sample Matrix Compatibility:** Aqueous solutions (drinking, ground, waste water)

- Surface area: 100 m<sup>2</sup>/g, Particle size:100-400 mesh
- Extreme affinity for organic polar and non-polar compounds from both non-polar and polar matrices when used under reversed-phase conditions
- Carbon surface comprised of hexagonal ring structures, interconnected and layered into graphitic sheets
- Non-porous nature of the carbon phase allows for rapid processing, adsorption does not require analyte dispersion into solid phase pores
- Independent investigators have found ENVI-Carb extremely useful for the rapid sample preparation of over 200 pesticides from various matrices including ground water, fruits, and vegetables

	Cat. No.	Qty
<b>Supelclean™ ENVI-Carb™ SPE Tube</b>		
bed wt.: 100 mg, volume 1 mL	57109-U	108 ea
bed wt.: 250 mg, volume 3 mL	57088	54 ea
bed wt.: 250 mg, volume 6 mL	57092	30 ea
bed wt.: 500 mg, volume 6 mL	57094	30 ea
bed wt.: 1 g, volume 12 mL	57127-U	20 ea
bed wt.: 2 g, volume 12 mL	57128	20 ea
bed wt.: 5 g, volume 20 mL	57129	20 ea
bed wt.: 10 g, volume 60 mL	57130	16 ea
<b>Supelclean™ ENVI-Carb™ SPE Bulk Packing</b>		
-	57210-U	50 g
<b>Supelclean™ ENVI-Carb™ C SPE Tube</b>		
bed wt.: 1 g, volume 12 mL	57149	20 ea

## Supelclean™ ENVI-Carb Plus SPE Products

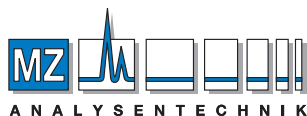
## Supelclean™ ENVI-Carb™ Plus SPE Tube

Spherical Carbon Particles (Carbon Molecular Sieve)

**Retention Mechanism:** Reversed-phase**Sample Matrix Compatibility:** Aqueous solutions (drinking, ground, waste water)

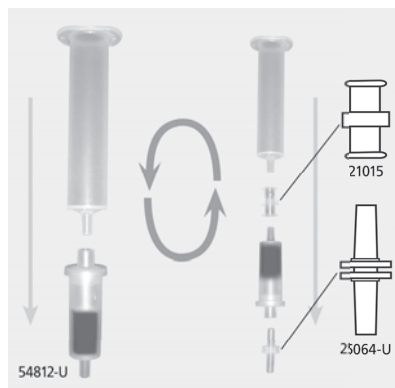
- Developed and engineered for the solid phase extraction of highly polar compounds from aqueous samples such drinking and ground water
- Extreme affinity for organic polar and non-polar compounds from both non-polar and polar matrices when used under reversed-phase conditions
- Unlike traditional graphitized carbon black (GCB) phases (e.g., Supelclean ENVI-Carb) which are granular and friable, ENVI-Carb Plus consists of strong high surface area spherical particles.
- Examples of highly polar compounds recovered ( $\geq 70\%$ ) using Supelclean ENVI-Carb Plus include (but not limited to) acephate ( $\log P = -0.85$ ), phenol ( $\log P = 1.51$ ), 1,4-dioxane ( $\log P = -0.27$ ), and oxamly ( $\log P = -1.2$ ).
- When used in conjunction with an SPE vacuum manifold, a male luer coupler (Cat. No. 25064-U), female luer coupler (Cat. No. 21015), and empty SPE tube(s) are required but not included.

matrix .....	Amorphous Carbon Molecular Sieve (CMS) Polymer Carbon or Graphitized Polymer Carbon (GPCS)
surface area .....	1149 m <sup>2</sup> /g
density .....	2.27 g/mL
pore volume .....	0.782 mL/g
pore size .....	27.2 Å



AUTHORIZED DISTRIBUTOR

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▶ Reversible Tube, bed wt.: 400 mg, volume 1 mL

54812-U

30 ea

## Supelclean™ Coconut Charcoal SPE Products

## Supelclean™ Coconut Charcoal SPE Tube

▶ bed wt.: 2 g, volume 6 mL

**Retention Mechanism:** Reversed-phase**Sample Matrix Compatibility:** Aqueous solutions (drinking, ground, waste water)

- Particle Sz.: 80/120 mesh
- Developed specifically for EPA Method 521 - "Determination of Nitrosamines in Drinking Water by Solid Phase Extraction and Capillary Column Gas Chromatography with Large Volume Injection and Chemical Ionization Tandem Mass Spectrometry (MS/MS)"



57144-U

30 ea

## Supelclean™ ENVI-Chrom P SPE Products

Styrene/divinylbenzene co-polymer

**Retention Mechanism:** Reversed-phase or Adsorption**Sample Matrix Compatibility:** Aqueous solutions

- Particle Size: 80-160  $\mu\text{m}$ , Spherical Shape, Pore Size: 110- 175 Å, Surface Area: 900 m<sup>2</sup>/g
- Highly crosslinked, neutral, specially cleaned styrene/ divinylbenzene resin used to retain hydrophobic compounds with some hydrophilic functionality under reversed phase conditions
- Highly resistant to extreme pH conditions
- Typical applications include aromatics and phenolic compounds from aqueous sample matrices
- Used for priority pollutant phenols from aqueous samples

	Cat. No.	Qty
<b>Supelclean™ ENVI-Chrom P SPE Bulk Packing</b>		
-	57217	50 g
<b>Supelclean™ ENVI-Chrom P SPE Tube</b>		
bed wt.: 100 mg, volume 1 mL	57143	108 ea
bed wt.: 250 mg, volume 3 mL	57224	54 ea
bed wt.: 250 mg, volume 6 mL	57225-U	30 ea
bed wt.: 500 mg, volume 6 mL	57226	30 ea
volume 6 mL, bed wt.: 500 mg, for use with Gerstel® MPS 3	57239-U	30 ea

For technical assistance, visit [sigma-aldrich.com/techinfo](http://sigma-aldrich.com/techinfo)

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