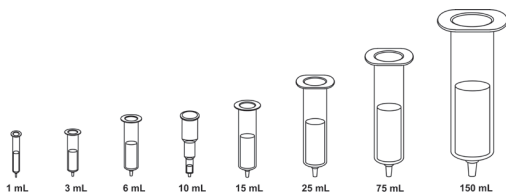


# ENVIRO-CLEAN® SOLID PHASE EXTRACTION CARTRIDGES

## HYDROPHILIC PRODUCT GUIDE



Sorbents are offered in the following particle sizes:

- Small Particle (5-20 µm)
- Intermediate Particle (25-40 µm)
- Standard Particle (40-63 µm)
- Large Particle (80-200 µm)

% Organic Loading: N/A

**Application:**

Extract Clean-Up

Florisil® is a registered trademark of U.S. Silica

Florisil® A			
PART NUMBER UNENDCAPPED	PART NUMBER ENDCAPPED	AMT. SORBENT/ TUBE VOL.	UNITS
EUFLSA1L1	–	50 mg/1 mL	100
EUFLSA111	–	100 mg/1 mL	100
EUFLSA123	–	200 mg/3 mL	50
EUFLSA153	–	500 mg/3 mL	50
EUFLSA156	–	500 mg/6 mL	50
EUFLSA1M6	–	1000 mg/6 mL	30
EUFLSA11Z	–	100 mg/10 mL	50
EUFLSA12Z	–	200 mg/10 mL	50
EUFLSA15Z	–	500 mg/10 mL	50
EUFLSA12M15	–	2000 mg/15 mL	20
EUFLSA15M25	–	5000 mg/25 mL	20
EUFLSA110M75	–	10,000 mg/75 mL	10

Florisil® PR			
PART NUMBER UNENDCAPPED	PART NUMBER ENDCAPPED	AMT. SORBENT/ TUBE VOL.	UNITS
EUFLS1L1	–	50 mg/1 mL	100
EUFLS111	–	100 mg/1 mL	100
EUFLS123	–	200 mg/3 mL	50
EUFLS153	–	500 mg/3 mL	50
EUFLS156	–	500 mg/6 mL	50
EUFLS1M6	–	1000 mg/6 mL	30
EUFLS11Z	–	100 mg/10 mL	50
EUFLS12Z	–	200 mg/10 mL	50
EUFLS15Z	–	500 mg/10 mL	50
EUFLS12M15	–	2000 mg/15 mL	20
EUFLS15M25	–	5000 mg/25 mL	20
EUFLS110M75	–	10,000 mg/75 mL	10

% Organic Loading: N/A

**Application:**

Removes polar type compounds.

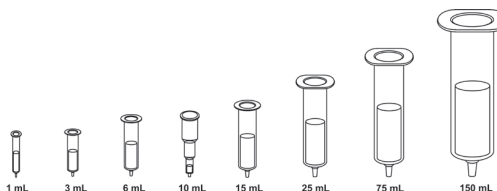
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Alumina Acid			
PART NUMBER UNENDCAPPED	PART NUMBER ENDCAPPED	AMT. SORBENT/ TUBE VOL.	UNITS
EUALA1L1	–	50 mg/1 mL	100
EUALA111	–	100 mg/1 mL	100
EUALA123	–	200 mg/3 mL	50
EUALA153	–	500 mg/3 mL	50
EUALA156	–	500 mg/6 mL	50
EUALA1M6	–	1000 mg/6 mL	30
EUALA11Z	–	100 mg/10 mL	50
EUALA12Z	–	200 mg/10 mL	50
EUALA15Z	–	500 mg/10 mL	50
EUALA12M15	–	2000 mg/15 mL	20
EUALA15M25	–	5000 mg/25 mL	20
EUALA110M75	–	10,000 mg/75 mL	10

% Organic Loading: N/A

**Application:**

Removes polar type compounds.

Alumina Base			
PART NUMBER UNENDCAPPED	PART NUMBER ENDCAPPED	AMT. SORBENT/ TUBE VOL.	UNITS
EUALB1L1	–	50 mg/1 mL	100
EUALB111	–	100 mg/1 mL	100
EUALB123	–	200 mg/3 mL	50
EUALB153	–	500 mg/3 mL	50
EUALB156	–	500 mg/6 mL	50
EUALB1M6	–	1000 mg/6 mL	30
EUALB11Z	–	100 mg/10 mL	50
EUALB12Z	–	200 mg/10 mL	50
EUALB15Z	–	500 mg/10 mL	50
EUALB12M15	–	2000 mg/15 mL	20
EUALB15M25	–	5000 mg/25 mL	20
EUALB110M75	–	10,000 mg/75 mL	10

% Organic Loading: N/A

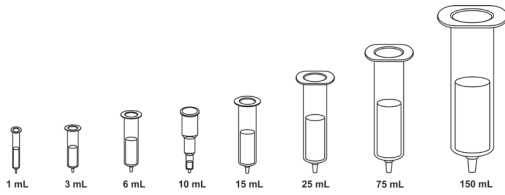
**Application:**

Removes polar type compounds.



# ENVIRO-CLEAN® SOLID PHASE EXTRACTION CARTRIDGES

## HYDROPHILIC PRODUCT GUIDE



Sorbents are offered in the following particle sizes:

- Small Particle (5-20 µm)
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- Large Particle (80-200 µm)

**% Organic Loading:** N/A

**Application:**

Removes polar type compounds.

Alumina Neutral			
PART NUMBER UNENDCAPPED	PART NUMBER ENDCAPPED	AMT. SORBENT/TUBE VOL.	UNITS
EUALN1L1	–	50 mg/1 mL	100
EUALN111	–	100 mg/1 mL	100
EUALN123	–	200 mg/3 mL	50
EUALN153	–	500 mg/3 mL	50
EUALN156	–	500 mg/6 mL	50
EUALN1M6	–	1000 mg/6 mL	30
EUALN11Z	–	100 mg/10 mL	50
EUALN12Z	–	200 mg/10 mL	50
EUALN15Z	–	500 mg/10 mL	50
EUALN12M15	–	2000 mg/15 mL	20
EUALN15M25	–	5000 mg/25 mL	20
EUALN110M75	–	10,000 mg/75 mL	10

**% Organic Loading:** 8.00

**Application:**

Removes hydrophilic (polar) impurities, purification of hydrophilic (polar) compounds.

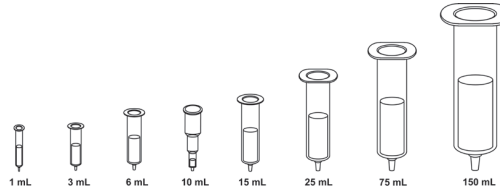
Diol			
PART NUMBER UNENDCAPPED	PART NUMBER ENDCAPPED	AMT. SORBENT/TUBE VOL.	UNITS
EUDOL1L1	–	50 mg/1 mL	100
EUDOL111	–	100 mg/1 mL	100
EUDOL123	–	200 mg/3 mL	50
EUDOL153	–	500 mg/3 mL	50
EUDOL156	–	500 mg/6 mL	50
EUDOL1M6	–	1000 mg/6 mL	30
EUDOL11Z	–	100 mg/10 mL	50
EUDOL12Z	–	200 mg/10 mL	50
EUDOL15Z	–	500 mg/10 mL	50
EUDOL12M15	–	2000 mg/15 mL	20
EUDOL15M25	–	5000 mg/25 mL	20
EUDOL110M75	–	10,000 mg/75 mL	10

# ENVIRO-CLEAN® SOLID PHASE EXTRACTION CARTRIDGES

## HYDROPHILIC PRODUCT GUIDE

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Standard Particle (40-63 µm)  
Large Particle (80-200 µm)



Unbonded Silica (Acid Washed)			
PART NUMBER UNENDCAPPED	PART NUMBER ENDCAPPED	AMT. SORBENT/ TUBE VOL.	UNITS
EUSIL1L1	–	50 mg/1 mL	20 x 5
EUSIL111	–	100 mg/1 mL	20 x 5
EUSIL123	–	200 mg/3 mL	10 x 5
EUSIL153	–	500 mg/3 mL	10 x 5
EUSIL156	–	500 mg/6 mL	10 x 5
EUSIL1M6	–	1000 mg/6 mL	6 x 5
EUSIL11Z	–	100 mg/10 mL	10 x 5
EUSIL12Z	–	200 mg/10 mL	10 x 5
EUSIL15Z	–	500 mg/10 mL	10 x 5
EUSIL12M15	–	2000 mg/15 mL	4 x 5
EUSIL15M25	–	5000 mg/25 mL	4 x 5
EUSIL110M75	–	10,000 mg/75 mL	2 x 5

High-Surface Activity Silica			
PART NUMBER UNENDCAPPED	PART NUMBER ENDCAPPED	AMT. SORBENT/ TUBE VOL.	UNITS
EPHSIL1L1	–	50 mg/1 mL	20 x 5
EPHSIL111	–	100 mg/1 mL	20 x 5
EPHSIL123	–	200 mg/3 mL	10 x 5
EPHSIL153	–	500 mg/3 mL	10 x 5
EPHSIL156	–	500 mg/6 mL	10 x 5
EPHSIL1M6	–	1000 mg/6 mL	6 x 5
EPHSIL11Z	–	100 mg/10 mL	10 x 5
EPHSIL12Z	–	200 mg/10 mL	10 x 5
EPHSIL15Z	–	500 mg/10 mL	10 x 5
EPHSIL12M15	–	2000 mg/15 mL	4 x 5
EPHSIL15M25	–	5000 mg/25 mL	4 x 5
EPHSIL110M75	–	10,000 mg/75 mL	2 x 5

% Organic Loading: 4.00

**Application:**

Removes hydrophilic (polar) impurities, purification of hydrophilic (polar) compounds.

% Organic Loading: 4.00

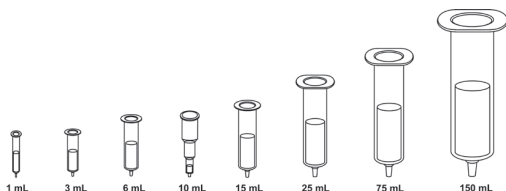
**Application:**

Removes hydrophilic (polar) impurities, purification of hydrophilic (polar) compounds.



# ENVIRO-CLEAN® SOLID PHASE EXTRACTION CARTRIDGES

## HYDROPHILIC PRODUCT GUIDE



Sorbents are offered in the following particle sizes:

- Small Particle (5-20  $\mu\text{m}$ )
- Intermediate Particle (25-40  $\mu\text{m}$ )
- Standard Particle (40-63  $\mu\text{m}$ )
- Large Particle (80-200  $\mu\text{m}$ )

Carbon - Graphitized, Non-Porous, 120/400 Mesh			
PART NUMBER UNENDCAPPED	PART NUMBER ENDCAPPED	AMT. SORBENT/ TUBE VOL.	UNITS
EUCARB1L1	—	50 mg/1 mL	100
EUCARB111	—	100 mg/1 mL	100
EUCARB123	—	200 mg/3 mL	50
EUCARB153	—	500 mg/3 mL	50
EUCARB126	—	200 mg/6 mL	50
EUCARB156	—	500 mg/6 mL	50
EUCARB1M6	—	1000 mg/6 mL	30
EUCARB11Z	—	100 mg/10 mL	50
EUCARB12Z	—	200 mg/10 mL	50
EUCARB15Z	—	500 mg/10 mL	50
EUCARB1M15	—	1000 mg/15 mL	20
EUCARB12M15	—	2000 mg/15 mL	20

### CLEAN-UP® Carbon

Carbon supports have been used to isolate extremely polar organic compounds. They work by an adsorption mechanism with a high surface area and ion exchange. This interaction can happen in a wide range of polar and non-polar solvents.

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### SPE FACTS

- When choosing a sorbent the RETENTION of analyte should be strong enough so that 20 BED volumes of WASH solvent will not elute the analyte
- CAPACITY of bonded silicas can range from 1% to 15% depending upon analyte
- pKa is the pH at which 50% of the analyte is ionic and 50% is neutral
- RETENTION of analytes by POLAR interactions is aided by NON-POLAR solvents
- RETENTION of analytes by ION-EXCHANGE sorbent is aided by:
  - o Solvent/matrix pH should be between the pKa of the analyte and sorbent
  - o Solvent/matrix ionic strength must be low
  - o Sorbent should be equilibrated with LOW selectivity counter-ion
- ELUTION of analytes from ION-EXCHANGE sorbent is aided by:
  - o Solvent/matrix pH ABOVE the pKa of CATION or below ANION
  - o Solvent/matrix ionic strength HIGH
  - o Solvent/matrix contains HIGH selectivity counter-ions (SeeTable1)
- Solvent ACTIVATION of the solid-phase is necessary for the proper interaction of the sorbent with the analyte
- ELUTION of analytes from POLAR sorbents is aided by POLAR solvents

