

# SilactSPE™

## INORGANIC-BASED SPE



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## A very large range of SPE sorbents

SilactSPE™ products are inorganic based sorbents SPE cartridges mainly alumina or modified silica.

SilactSPE™ Silica or Alumina - based SPE cartridges are silica- or alumina based phases and offer a broad range of chemically modified silica or alumina. This chemistry goes from very polar sorbent (bare silica) to hydrophobic sorbent (end-capped saturated hydrocarbon modified silica) passing through intermediate polarity (for instance, amino modified silica).

SilactSPE™ products are Silica-based and alumina-based sorbents available in different formats including SPE cartridges and 48- & 96-well plates, with different sorbents, and in bed weights up to 10 grams.

Reversed phase based silica	More polar Silica based phase		Normal phase
<b>C8</b> moderately hydrophobic	<b>SiWCX</b> Weak cation exchanger	<b>SiSCX</b> Strong cation exchanger	<b>Silica</b> Very polar
<b>Phenyl</b> moderately hydrophobic	<b>SiSAX</b> Strong anion exchanger	<b>Amino (SiWAX)</b> Weak anion exchanger	<b>Alumina (A, B, N)</b> Highly active
<b>C18</b> Strongly hydrophobic	<b>Cyano</b> Cyano propyl Polar phase	<b>PSA</b> primary secondary amine	<b>Florisil</b> polar –highly active – weakly basic



## Strongly hydrophobic and non-polar sorbent

It was recently developed as an innovative C18 phase characterized by a homogeneous coverage of the silane on the surface.

**SilactSPE™ C18** particularly suits for the extraction of acidic, neutral and basic compounds from aqueous solutions, various organic compounds from water, and drugs and metabolites from physiological fluids.

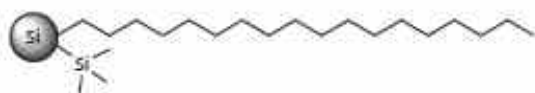
## Product Information

**Loading** : 15-17 % C

**Endcapping** : Yes for **SilactSPE™ C18**,

No for **SilactSPE™ C18NEC**

**Silica type**: 60 Å, 500 m<sup>2</sup>/g, 40-63 µm



**SilactSPE™ C18 end-capped**



**SilactSPE™ C18NEC not end-capped**

Cartridges format, Sorbent amount	#/box	SilactSPE™ C18 (end capped)	SilactSPE™ C18 NEC (not end capped)
1mL, 50mg	100	C18-100.S.1.50	C18nec-100.S.1.50
1mL, 100mg	100	C18-100.S.1.100	C18nec-100.S.1.100
3mL, 200mg	50	C18-50.S.3.200	C18nec-50.S.3.200
3mL, 500mg	50	C18-50.S.3.500	C18nec-50.S.3.500
6mL, 500mg	50	C18-50.S.6.500	C18nec-50.S.6.500
6mL, 1g	50	C18-50.S.6.1g	C18nec-50.S.6.1g
10mL LRC, 500mg	50	C18-50.LRC.10.500	C18nec-50.LRC.10.500
12mL, 2g	20	C18-20.S.12.2g	C18nec-20.S.12.2g
Reversible 0.7mL, 260mg	25	C18-25.REV.1.260	C18nec-25.REV.1.360
Reversible 2mL, 1g	25	C18-25.REV.2.1000	C18nec-25.REV.2.1000
96 well plate, 50mg	1	C18-1.96W.50	C18nec--1.96W.50
96 well plate, 100mg	1	C18--1.96W.100	C18nec-1.96W.100

**SilactSPE™ C8:** **Moderately hydrophobic and non-polar sorbent**  
**Sorbent C8** is more selective than **Sorbent C18** for big compounds such as PAH, vitamin D, and oils as well as greasy compounds. It particularly suits for the extraction of extremely non-polar compounds.

### Product Information

**Loading :** 12 % C

**Endcapping :** Yes

**Silica type :** 60 Å, 500 m<sup>2</sup>/g, 40-63 µm

**SilactSPE™ Phenyl:** **Moderately hydrophobic and non-polar sorbent**  
 it particularly suits for the extraction of non-polar compounds with different selectivities through π-π interactions including aromatic compounds and other non-polar phases.

### Product Information

**Loading :** 9 % C

**Endcapping :** Yes

**Silica type :** 60 Å, 500 m<sup>2</sup>/g, 40-63 µm

Cartridges format, Sorbent amount	#/box	SilactSPE™ C8	SilactSPE™ Phenyl
1mL, 50mg	100	C8-100.S.1.50	Phe-100.S.1.50
1mL, 100mg	100	C8-100.S.1.100	Phe-100.S.1.100
3mL, 200mg	50	C8-50.S.3.200	Phe-50.S.3.200
3mL, 500mg	50	C8-50.S.3.500	Phe-50.S.3.500
6mL, 500mg	50	C8-50.S.6.500	Phe-50.S.6.500
6mL, 1g	50	C8-50.S.6.1g	Phe-50.S.6.1g
10mL LRC, 500mg	50	C8-50.LRC.10.500	Phe-50.LRC.10.500
12mL, 2g	20	C8-20.S.12.2g	Phe-20.S.12.2g
Reversible 0.7mL, 260mg	25	C8-25.REV.1.260	Phe-25.REV.1.260
Reversible 2mL, 1g	25	C8-25.REV.2.1000	Phe-25.REV.2.1000
96 well plate, 50mg	1	C8--1.96W.50	Phe--1.96W.50
96 well plate, 100mg	1	C8-1.96W.100	Phe-1.96W.100

## SilactSPE™ Silica : Most polar sorbent

It presents a slightly acidic character and is used to extract various compounds from non-polar solvents through hydrogen bonding.

### Product Information

**Silica type** : 60 Å, 500 m<sup>2</sup>/g, 40-63 µm

## SilactSPE™ Cyano : Moderately polar sorbent

It is used as a normal phase (less polar compared to silica). It particularly suits for the extraction of acidic, basic and neutral compounds from aqueous solutions. It is also used as a reversed-phase (less hydrophobic than C8 and C18).

### Product Information

**Loading** : 7 % C

**Endcapping** : Yes

**Silica type** : 60 Å, 500 m<sup>2</sup>/g, 40-63 µm

Cartridges format, Sorbent amount	#/box	SilactSPE™ Silica	SilactSPE™ Cyano
1mL, 50mg	100	Si-100.S.1.50	CN-100.S.1.50
1mL, 100mg	100	Si-100.S.1.100	CN-100.S.1.100
3mL, 200mg	50	Si-50.S.3.200	CN-50.S.3.200
3mL, 500mg	50	Si-50.S.3.500	CN-50.S.3.500
6mL, 500mg	50	Si-50.S.6.500	CN-50.S.6.500
6mL, 1g	50	Si-50.S.6.1g	CN-50.S.6.1g
10mL LRC, 500mg	50	Si-50.LRC.10.500	CN-50.LRC.10.500
12mL, 2g	20	Si-20.S.12.2g	CN-20.S.12.2g
Reversible 0.7mL	25	Si-25.REV.1.240 for 240mg	CN-25.REV.1. 260 for 260mg
Reversible 2mL	25	Si-25.REV.2.900 for 900mg	CN-25.REV.2.1000 for 1000mg
96 well plate, 50mg	1	Si--1.96W.50	CN--1.96W.50
96 well plate, 100mg	1	Si-1.96W.100	CN-1.96W.100

**SilactSPE™ Amine (SiWAX):** Weak anion exchanger silica-based sorbent

**SilactSPE™ Amino** avoids irreversible retention of acidic molecules (pKa < 3) and particularly suits for the separation of peptides, drugs and metabolites from physiological fluids, poly- and monosaccharides and structural isomers.

### Product Information

**Loading :** 1.6 mmol/g

**Endcapping :** Yes

**Silica type :** 60 Å, 500 m<sup>2</sup>/g, 40-63 µm

**SilactSPE™ PSA:** Weak anion exchanger silica-based sorbent

Less polar sorbent than **SilactSPE™ Amine** used for its replacement with analytes that are too strongly retained on an amine phase.

### Product Information

**Endcapping :** Yes

**Silica type :** 60 Å, 500 m<sup>2</sup>/g, 40-63 µm

Cartridges format, Sorbent amount	#/box	SilactSPE™ Amine or SiWAX	SilactSPE™ PSA
1mL, 50mg	100	NH2-100.S.1.50	PSA-100.S.1.50
1mL, 100mg	100	NH2-100.S.1.100	PSA-100.S.1.100
3mL, 200mg	50	NH2-50.S.3.200	PSA-50.S.3.200
3mL, 500mg	50	NH2-50.S.3.500	PSA-50.S.3.500
6mL, 500mg	50	NH2-50.S.6.500	PSA-50.S.6.500
6mL, 1g	50	NH2-50.S.6.1g	PSA-50.S.6.1g
10mL LRC, 500mg	50	NH2-50.LRC.10.500	PSA-50.LRC.10.500
12mL, 2g	20	NH2-20.S.12.2g	PSA-20.S.12.2g
Reversible 0.7mL, 260mg	25	NH2-25.REV.1.260	PSA-25.REV.1.260
Reversible 2mL, 1000mg	25	NH2-25.REV.2.1000	PSA-25.REV.2.1000
96 well plate, 50mg	1	NH2-1.96W.50	PSA--1.96W.50
96 well plate, 100mg	1	NH2-1.96W.100	PSA-1.96W.100

**SilactSPE™ SiWCX:** Weak cation exchanger silica-based sorbent with carboxylic acid.

**SilactSPE™ SiWCX** particularly suits to extract strong basic molecules (pKa>9).

**Product Information**

**Loading :** 1.6 mmol/g

**Endcapping :** Yes

**Silica type :** 60 Å, 500 m<sup>2</sup>/g, 40-63 µm

**SilactSPE™ SiSCX:** Strong cation exchanger silica-based sorbent positively charged with tosic acid moieties.

**SilactSPE™ SiSCX** particularly suits to extract basic molecules (pKa 7-10)

**Product Information**

**Loading :** 0.8 mmol/g

**Endcapping :** Yes

**Silica type :** 60 Å, 500 m<sup>2</sup>/g, 40-63 µm

Cartridges format, Sorbent amount	#/box	SilactSPE™ SiWCX	SilactSPE™ SiSCX
1mL, 50mg	100	SiWCX-100.S.1.50	SiSCX-100.S.1.50
1mL, 100mg	100	SiWCX-100.S.1.100	SiSCX-100.S.1.100
3mL, 200mg	50	SiWCX-50.S.3.200	SiSCX-50.S.3.200
3mL, 500mg	50	SiWCX-50.S.3.500	SiSCX-50.S.3.500
6mL, 500mg	50	SiWCX-50.S.6.500	SiSCX-50.S.6.500
6mL, 1g	50	SiWCX-50.S.6.1g	SiSCX-50.S.6.1g
10mL LRC, 500mg	50	SiWCX-50.LRC.10.500	SiSCX-50.LRC.10.500
12mL, 2g	20	SiWCX-20.S.12.2g	SiSCX-20.S.12.2g
Reversible 0.7mL, 260mg	25	SiWCX-25.REV.1.260	SiSCX-25.REV.1.260
Reversible 2mL, 1000mg	25	SiWCX-25.REV.2.1000	SiSCX-25.REV.2.1000
96 well plate, 50mg	1	SiWCX-1.96W.50	SiSCX-1.96W.50
96 well plate, 100mg	1	SiWCX-1.96W.100	SiSCX-1.96W.100

**SilactSPE™ SiSAX:** Strong anion exchanger silica-based sorbent using trimethyl ammonium moieties.

**SilactSPE™ SiSAX** particularly suits to extract acidic molecules (pKa 3-5)

**Product Information**

**Loading :** 1.1 mmol/g

**Endcapping :** No

**Silica type :** 60 Å, 500 m<sup>2</sup>/g, 40-63 µm

**SilactSPE™ Carbonate**

**General base quencher**

**SilactSPE™ Carbonate** is the silica-bound equivalent of tetramethyl ammonium carbonate and is used as a general base to quench a reaction, free base amines in their ammonium salt form and to scavenge acids, boronic acids and acidic phenols including HOBt.

Cartridges format, Sorbent amount	#/box	SilactSPE™ SiSAX	SilactSPE™ Carbonate
1mL, 50mg	100	SiSAX-100.S.1.50	CO3-100.S.1.50
1mL, 100mg	100	SiSAX-100.S.1.100	CO3-100.S.1.100
3mL, 200mg	50	SiSAX-50.S.3.200	CO3-50.S.3.200
3mL, 500mg	50	SiSAX-50.S.3.500	CO3-50.S.3.500
6mL, 500mg	50	SiSAX-50.S.6.500	CO3-50.S.6.500
6mL, 1g	50	SiSAX-50.S.6.1g	CO3-50.S.6.1g
10mL LRC, 500mg	50	SiSAX-50.LRC.10.500	CO3-50.LRC.10.500
12mL, 2g	20	SiSAX-20.S.12.2g	CO3-20.S.12.2g
Reversible 0.7mL, 260mg	25	SiSAX-25.REV.1.260	CO3-25.REV.1.260
Reversible 2mL, 1000mg	25	SiSAX-25.REV.2.1000	CO3-25.REV.2.1000
96 well plate, 50mg	1	SiSAX-1.96W.50	CO3--1.96W.50
96 well plate, 100mg	1	SiSAX-1.96W.100	CO3-1.96W.100



**SilactSPE™ Florisil PR (MgO<sub>3</sub>Si) : Polar sorbent**

They present a basic character used to extract non-polar to moderately polar compounds from non-polar solvents.

They particularly suit for the retention of chlorinated pesticides, polychlorinated biphenyl (PCB's) and polysaccharides due to the magnesium ion.

**Product Information**

**Florisil PR type : 150-200 μm**

Cartridges format, Sorbent amount, #/box	SilactSPE™ Florisil PR
1mL, 50mg, 100/pk	FloPR-100.S.1.50
1mL, 100mg, 100/pk	FloPR-100.S.1.100
3mL, 200mg, 50/pk	FloPR-50.S.3.200
3mL, 500mg, 50/pk	FloPR-50.S.3.500
6mL, 500mg, 50/pk	FloPR-50.S.6.500
6mL, 1g, 50/pk	FloPR-50.S.6.1g
10mL LRC, 500mg, 50/pk	FloPR-50.LRC.10.500
12mL, 2g, 20/pk	FloPR-20.S.12.2g
Reversible 0.7mL, 300mg, 25/pk	FloPR-25.REV.1.300
Reversible 2mL, 900mg, 25/pk	FloPR-25.REV.2.900
96 well plate, 50mg, 1 unit	FloPR--1.96W.50
96 well plate, 100mg, 1 unit	FloPR-1.96W.100

**SilactSPE™ Dry:** contains sodium sulfate anhydrous (Na<sub>2</sub>SO<sub>4</sub>) in reversible cartridges.

Cart. format, Sorbent amount, #/box	SilactSPE™ Dry
Reversible 0.7mL, 800mg, 50/pk	Na2SO4-50.REV.1.800
Reversible 2mL, 2500mg, 50/pk	Na2SO4-50.REV.2.2500

**SilactSPE™ Na<sub>2</sub>SO<sub>4</sub>/Florisil** contains an upper layer of sodium sulfate anhydrous (Na<sub>2</sub>SO<sub>4</sub>) to dry the solution and a bottom layer of Florisil for the determination of hydrocarbons in water according to DIN-H-53/ ISO 9377-4.

Cart. format, Sorbent amount #/box	SilactSPE™ Na <sub>2</sub> SO <sub>4</sub> / Florisil
6mL PP, 2g+2g, 50/pk	FloNa2SO4-50.S.6.2g.2g
12mL PP, 3g+3g, 25/pk	FloNa2SO4-25.S.12.3g.3g

## SilactSPE™ Alumina-Acidic, Neutral and Basic

Alumina can present either cationic, neutral and acidic character. It is used in a similar fashion as for the SilactSPE™ Silica. The difference is that Alumina is more stable at high pH than silica.

**SilactSPE™ Alumina** particularly suit for the retention of aromatic compounds, aliphatic amines and compounds containing electronegative functions.

### Product Information

Alumina type : 60 Å, 0.9 g/mL, 50-200 µm

Cartridges format, Sorbent amount	#/box	SilactSPE™ Alumina Acidic	SilactSPE™ Alumina Neutral	SilactSPE™ Alumina Basic
1mL, 50mg	100	AluA-100.S.1.50	AluN-100.S.1.50	AluB-100.S.1.50
1mL, 100mg	100	AluA-100.S.1.100	AluN-100.S.1.100	AluB-100.S.1.100
3mL, 200mg	50	AluA-50.S.3.200	AluN-50.S.3.200	AluB-50.S.3.200
3mL, 500mg	50	AluA-50.S.3.500	AluN- 50.S.3.500	AluB- 50.S.3.500
6mL, 500mg	50	AluA-50.S.6.500	AluN-50.S.6.500	AluB-50.S.6.500
6mL, 1g	50	AluA-50.S.6.1g	AluN-50.S.6.1g	AluB-50.S.6.1g
10mL LRC, 500mg	50	AluA- 50.LRC.10.500	AluN- 50.LRC.10.500	AluB-50.LRC.10.500
12mL, 2g	20	AluA-20.S.12.2g	AluN-20.S.12.2g	AluB-20.S.12.2g
Reversible 0.7mL, 700mg	25	AluA-25.REV.1.700	AluN-25.REV.1.700	AluB-25.REV.1.700
Reversible 2mL, 2g	25	AluA-25.REV.2.2g	AluN-25.REV.2.2g	AluB-25.REV.2.2g
96 well plate, 50mg	1	AluA-1.96W.50	AluN-1.96W.50	AluB--1.96W.50
96 well plate, 100mg	1	AluA-1.96W.100	AluN-1.96W.100	AluB-1.96W.100

# AttractSPE™ Carbon based SPE

## AttractSPE<sup>i</sup> Carbon

For the extraction of herbicides (EPA method 535)

A Graphitized Carbon Black sorbent. for absorption of pigments in food and small organic residues in water.

## AttractSPE<sup>i</sup> Carbon/Amine

For the cleanup of pesticides in food matrices prior to GC analysis

A two layer sorbents with Graphitized Black Carbon (GCB) and Aminopropyl modified silica sorbents

## AttractSPE<sup>i</sup> Carbon/PSA

For the cleanup of pesticides in food matrices prior to GC analysis

A two layer sorbents with Graphitized Black Carbon (GCB) and PSA modified silica sorbents

Product	Vol	Sorbent	25 cartridges/box	50 cartridges/box
<b>AttractSPE™ Carbon</b>	6mL	500mg	Carb-25.S.6.500	Carb-50.S.6.500
<b>AttractSPE™ Carbon/PSA</b>	3mL	250mg/250 mg	CarbPSA-25.S.3.250.250	CarbPSA-50.S.3.250.250
	6mL	500mg/500 mg	CarbPSA-25.S.6.500.500	CarbPSA-50.S.6.500.500
<b>AttractSPE™ Carbon/Amine</b>	6mL	500mg/500 mg	CarbNH2-25.S.6.500.500	CarbNH2-50.S.6.500.500