



## HPLC ACCESSORIES



## Autosampler Vials & Caps

RoyLab's autosampler vials, caps, and septa can be compatible with different brands of autosamplers, including Agilent, Waters, Varian, Shimadzu, and others.

- All the vials are uniformly flat bottoms for security with inserts.
- PTFE/Silicone septa are most popular for HPLC applications.
- Pre-slit septa are easier to pierce with needles.
- Pre-assembled caps and septa are convenient and minimize contamination from handling.

### 8-425 Autosampler Vials



Part Number	Size (mm)	Packing	Description
RLMIC-SV0802C	12*32	100	2ml Clear Vial, 8-425, Screw Top
RLMIC-SV0802A	12*32	100	2ml Amber Vial, 8-425, Screw Top
RLMIC-SV0812C	12*32	100	2ml Clear Vial with writing area, 8-425, Screw Top
RLMIC-SV0812A	12*32	100	2ml Amber Vial with writing area, 8-425, Screw Top

### 8-425 Cap & Septa



Part Number	Packing	Description
RLMIC-SV0801CS	100	8-425 Black Open Caps, White PTFE / Red Silicone
RLMIC-SV0802CS	100	8-425 Black Open Caps, Red PTFE / White Silicone
RLMIC-SV0803CS	100	8-425 Black Open Caps, Blue PTFE / White Silicone, Pre-Silt

### 8mm Septa



Part Number	Packing	Description
RLMIC-SV0801S	100	8mm, White PTFE / Red Silicone Septa
RLMIC-SV0802S	100	8mm, Red PTFE / White Silicone Septa
RLMIC-SV0803S	100	8mm, Blue PTFE / White Silicone Pre-Silt Septa

### 9-425 Autosampler Vials



Part Number	Size (mm)	Packing	Description
RLMIC-SV0902C	12*32	100	2ml Clear Vial, 9-425, Screw Top
RLMIC-SV0902A	12*32	100	2ml Amber Vial, 9-425, Screw Top
RLMIC-SV0912C	12*32	100	2ml Clear Vial with writing area, 9-425, Screw Top
RLMIC-SV0912A	12*32	100	2ml Amber Vial with writing area, 9-425, Screw Top
RLMIC-SV0912P	12*32	100	2ml PP Vials graduated with writing area, 9-425, Screw Top

## 9-425 Cap & Septa



Part Number	Packing	Description
RLMIC-SV0901CS	100	9-425 Blue Open Caps, White PTFE / Red Silicone
RLMIC-SV0902CS	100	9-425 Blue Open Caps, Red PTFE / White Silicone
RLMIC-SV0903CS	100	9-425 Blue Open Caps, Blue PTFE / White Silicone, Pre-Silt
RLMIC-SV0904CS	100	9-425 Blue Open Bonded Caps, Red PTFE / White Silicone, Pre-Silt
RLMIC-SV0905CS	100	9-425 Blue Open Caps, Red PTFE / White Silicone / Red PTFE Septa
RLMIC-SV0906CS	100	9-425 Blue Open Caps, Red PTFE / White Silicone / Red PTFE Septa, Pre-Silt
RLMIC-SV0907CS	100	9-425 Blue Closed Caps, Red PTFE / White Silicone Septa

## 9mm Septa



Part Number	Packing	Description
RLMIC-SV0901S	100	9mm, White PTFE / Red Silicone Septa
RLMIC-SV0902S	100	9mm, Red PTFE / White Silicone Septa
RLMIC-SV0903S	100	9mm, Blue PTFE / White Silicone Septa
RLMIC-SV0904S	100	9mm, Red PTFE / White Silicone / Red PTFE Septa
RLMIC-SV0905S	100	9mm, Red PTFE / White Silicone / Red PTFE Pre-Silt Septa

## 11mm Crimp Top Cap & Septa



Part Number	Packing	Description
RLMIC-SV1101CS	100	11mm Aluminium Crimp Open Cap, White PTFE / Red Silicone
RLMIC-SV1102CS	100	11mm Aluminium Crimp Open Cap, Red PTFE / White Silicone

## 11mm Septa



Part Number	Packing	Description
RLMIC-SV1101S	100	11mm White PTFE / Red Silicone Septa
RLMIC-SV1102S	100	11mm Red PTFE / White Silicone Septa

## 11mm Snap Top Autosampler Vials



Part Number	Size (mm)	Packing	Description
RLMIC-SV1202C	12*32	100	2ml Clear Vial, 11mm Snap Top
RLMIC-SV1202A	12*32	100	2ml Amber Vial, 11mm Snap Top
RLMIC-SV1212C	12*32	100	2ml Clear Vial with writing area, 11mm Snap Top
RLMIC-SV1212A	12*32	100	2ml Amber Vial with writing area, 11mm Snap Top



## 11mm Snap Cap & Septa



Part Number	Packing	Description
RLMIC-SV1201CS	100	11mm Snap Open Caps, White PTFE / Red Silicone Septa
RLMIC-SV1202CS	100	11mm Snap Open Caps, Red PTFE / White Silicone Septa

## 11mm Crimp Top Autosampler Vials



Part Number	Size (mm)	Packing	Description
RLMIC-SV1102C	12*32	100	2ml Clear Vial, 11mm Crimp Top
RLMIC-SV1102A	12*32	100	2ml Amber Vial, 11mm Crimp Top
RLMIC-SV1112C	12*32	100	2ml Clear Vial with writing area, 11mm Crimp Top
RLMIC-SV1112A	12*32	100	2ml Amber Vial with writing area, 11mm Crimp Top

## 10-425 Autosampler Vials



Part Number	Size (mm)	Packing	Description
RLMIC-SV1002C	12*32	100	2ml Clear Vial, 10-425, Screw Top
RLMIC-SV1002A	12*32	100	2ml Amber Vial, 10-425, Screw Top
RLMIC-SV1012C	12*32	100	2ml Clear Vial with writing area, 10-425, Screw Top
RLMIC-SV1012A	12*32	100	2ml Amber Vial with writing area, 10-425, Screw Top

## 10-425 Cap & Septa



Part Number	Size (mm)	Description
RLMIC-SV1001CS	100	10-425 Black Open Caps, White PTFE / Red Silicone
RLMIC-SV1002CS	100	10-425 Black Open Caps, Red PTFE / White Silicone

## 13-425 Autosampler Vials



Part Number	Size (mm)	Packing	Description
RLMIC-SV1304C	15*45	100	4ml Clear Vial, 13-425, Screw Top
RLMIC-SV1304A	15*45	100	4ml Amber Vial, 13-425, Screw Top
RLMIC-SV1314C	15*45	100	4ml Clear Vial with writing area, 13-425, Screw Top
RLMIC-SV1314A	15*45	100	4ml Amber Vial with writing area, 13-425, Screw Top
RLMIC-SV1308C	15*45	100	8ml Clear Vial, 13-425, Screw Top
RLMIC-SV1308A	15*45	100	8ml Amber Vial, 13-425, Screw Top
RLMIC-SV1318C	15*45	100	8ml Clear Vial with writing area, 13-425, Screw Top
RLMIC-SV1318A	15*45	100	8ml Amber Vial with writing area, 13-425, Screw Top



## 13-425 Cap & Septa



Part Number	Size (mm)	Description
RLMIC-SV1301CS	100	13-425 Black Caps with hole, Red PTFE / White Silicone
RLMIC-SV1302CS	100	13-425 Black Caps without hole, Red PTFE / White Silicone

## 12mm Septa



Part Number	Packing	Description
RLMIC-SV1301S	100	12mm White PTFE / Red Silicone Septa
RLMIC-SV1302S	100	12mm Red PTFE / White Silicone Septa
RLMIC-SV1303S	100	12mm Red PTFE / White Silicone / Red PTFE Septa

## 15-425 Autosampler Vials



Part Number	Packing	Description
RLMIC-SV1512C	100	12mm Clear Vial, 15-425, Screw Top
RLMIC-SV1512A	100	12ml Amber Vial, 15-425, Screw Top

## 15-425 Cap & Septa



Part Number	Packing	Description
RLMIC-SV1501CS	100	15-425 Black Caps with hole, Red PTFE / White Silicone
RLMIC-SV1502CS	100	15-425 Black Caps without hole, Red PTFE / White Silicone

## 5mm Micro Insert



Part Number	Size (mm)	Packing	Description
RLMIC-SVI8010P	5*29	100	Micro-Insert Clear Class, Conical Bottom with Assembled Plastic Spring
RLMIC-SVI8030F	5*31	100	Micro-Insert, Clear Class, Flat Bottom
RLMIC-SVI8030C	5*31	100	Micro-Insert, Clear Class, Conical Bottom

## 6mm Micro Insert



Part Number	Size (mm)	Packing	Description
RLMIC-SVI9025P	6*29	100	Micro-Insert Clear Class, Conical Bottom with Assembled Plastic Spring
RLMIC-SVI9030C	6*31	100	Micro-Insert, Clear Class, Conical Bottom
RLMIC-SVI9040F	6*31	100	Micro-Insert, Clear Class, Flat Bottom
RLMIC-SVI903CP	6*31	100	Micro-Insert, PP, Conical Bottom

## Shell Vials



Part Number	Size (mm)	Packing	Description
RLMIC-SVS1001	8*40	200	1ml Shell Vials with Plug, Flat Base
RLMIC-SVS1002	8*30	200	1ml Shell Vials with Plug, Flat Base

## Headspace Vials & Caps

All headspace vials are manufactured to provide uniform glass thickness, ensuring even heat distribution for consistent sampling reliability. All vials meet or exceed OEM instrument manufacturers' specification.

### Screw Top Headspace Vials



Part Number	Size (mm)	Packing	Description
RLMIC-HV1810C	22.5*46	100	10ml Clear Vial, 18mm Screw Top, Round Bottom
RLMIC-HV1820C	22.5*75.5	100	20ml Clear Vial, 18mm Screw Top, Round Bottom

### Screw Top Cap



Part Number	Size (mm)	Packing	Description
RLMIC-SV018CS	18	100	Silver Magnetic Screw Cap with Hole (8mm), Screw Top Blue PTFE / White Silicone Septa (17.5mm), for 18mm Screw Top Vial
RLMIC-SV118CS	18	100	Silver Magnetic Screw Cap without Hole, Screw Top Blue PTFE / White Silicone Septa (17.5mm), for 18mm Screw Top Vial

### Screw Top Septa



Part Number	Size (mm)	Packing	Description
RLMIC-SV018S	17.5	100	Blue PTFE / White Silicone Septa (17.5mm), for 18mm Screw Top Vial
RLMIC-SV118S	17.5	100	White PTFE / White Silicone Septa (17.5mm), for 18mm Screw Top Vial

### Crimp Top Headspace Vials



Part Number	Size (mm)	Packing	Description
RLMIC-HV005CR	22.5*38	100	5ml Clear Vial, Crimp Top, Round Bottom
RLMIC-HV010CF	22.5*46	100	10ml Clear Vial, Crimp Top, Flat Bottom
RLMIC-HV110CR	22.5*46	100	10ml Clear Vial, Crimp Top, Round Bottom
RLMIC-HV020CF	22.5*75	100	20ml Clear Vial, Crimp Top, Flat Bottom
RLMIC-HV120CR	22.5*75	100	20ml Clear Vial, Crimp Top, Round Bottom



## Crimp Top Cap



Part Number	Size (mm)	Packing	Description
RLMIC-HV020CS	20	100	20mm Aluminium Cap with Hole (8mm) + 3mm Natural PTFE / White Silicone Septa
RLMIC-HV120CS	20	100	20mm Aluminium Cap with Hole (8mm) + 1.3mm Red PTFE / White Silicone Septa

## Crimp Top Septa



Part Number	Size (mm)	Packing	Description
RLMIC-HV020S	3	100	20mm Natural PTFE / White Silicone, 3mm thickness
RLMIC-HV120S	1.3	100	20mm Red PTFE / White Silicone, 1.3mm thickness

## Storage Vials & EPA VOA

- Available in clear and amber borosilicate glass.
- Assembled in PP Caps with PTFE / Silicone Septa.

### Storage Vials

Part Number	Size (mm)	Packing	Description
RLMIC-SV1810C	22*52	100	10ml Clear Vial, 18-400
RLMIC-SV1810A	22*52	100	10ml Amber Vial, 18-400
RLMIC-SV1816C	22*70	100	16ml Clear Vial, 18-400
RLMIC-SV1816A	22*70	100	16ml Amber Vial, 18-400
RLMIC-SV2410C	27*38	100	10ml Clear Vial, 24-400
RLMIC-SV2410A	27*38	100	10ml Amber Vial, 24-400
RLMIC-SV2420C	27*57	100	20ml Clear Vial, 24-400
RLMIC-SV2420A	27*57	100	20ml Amber Vial, 24-400
RLMIC-SV2430C	27*84	100	30ml Clear Vial, 24-400
RLMIC-SV2430A	27*84	100	30ml Amber Vial, 24-400
RLMIC-SV2440C	27*95	100	40ml Clear Vial, 24-400
RLMIC-SV2440A	27*95	100	40ml Amber Vial, 24-400
RLMIC-SV2460C	27*140	100	60ml Clear Vial, 24-400
RLMIC-SV2460A	27*140	100	60ml Amber Vial, 24-400



### Caps with Septas

Part Number	Size (mm)	Packing	Description
RLMIC-SV018CS	18-400	100	18-400 Black Closed Screw Cap + Nature PTFE / Nature Silicone Septa
RLMIC-SV118CS	18-400	100	18-400 Black Open Screw Cap + Nature PTFE / Nature Silicone Septa
RLMIC-SV024CS	24-400	100	24-400 Black Screw Cap + Nature PTFE / Nature Silicone Septa
RLMIC-SV124CS	24-400	100	24-400 Black Open Screw Cap + Nature PTFE / Nature Silicone Septa
RLMIC-SV224CS	24-400	100	24-400 Black Screw Cap + PE Septa
RLMIC-SV324CS	24-400	100	24-400 Black Open Screw Cap + PE Septa

### EPA VOA Vials

Part Number	Size (mm)	Packing	Description
RLMIC-EV020C	27*57	72	20ml Clear Vials, 24-400, EPA VOA Vials, White Open Caps with Natural PTFE / Natural Silicone
RLMIC-EV120C	27*57	72	20ml Clear Vials, 24-400, EPA VOA Vials, Dust Cover Caps with Natural PTFE / Natural Silicone
RLMIC-EV020A	27*57	72	20ml Amber Vials, 24-400, EPA VOA Vials, White Open Caps with Natural PTFE / Natural Silicone
RLMIC-EV120A	27*57	72	20ml Amber Vials, 24-400, EPA VOA Vials, Dust Cover Caps with Natural PTFE / Natural Silicone
RLMIC-EV040C	27*95	72	40ml Clear Vials, 24-400, EPA VOA Vials, White Open Caps with Natural PTFE / Natural Silicone
RLMIC-EV140C	27*95	72	40ml Clear Vials, 24-400, EPA VOA Vials, Dust Cover Caps with Natural PTFE / Natural Silicone
RLMIC-EV040A	27*95	72	40ml Amber Vials, 24-400, EPA VOA Vials, White Open Caps with Natural PTFE / Natural Silicone
RLMIC-EV140A	27*95	72	40ml Amber Vials, 24-400, EPA VOA Vials, Dust Cover Caps with Natural PTFE / Natural Silicone
RLMIC-EV060C	27*140	72	60ml Clear Vials, 24-400, EPA VOA Vials, White Open Caps with Natural PTFE / Natural Silicone
RLMIC-EV160C	27*140	72	60ml Clear Vials, 24-400, EPA VOA Vials, Dust Cover Caps with Natural PTFE / Natural Silicone
RLMIC-EV060A	27*140	72	60ml Amber Vials, 24-400, EPA VOA Vials, White Open Caps with Natural PTFE / Natural Silicone
RLMIC-EV160A	27*140	72	60ml Amber Vials, 24-400, EPA VOA Vials, Dust Cover Caps with Natural PTFE / Natural Silicone

## Accessories

### Vials Rack

- Acrylic vial racks are resistant to most solvents.
- Transparent racks are easy to clean.
- Four racks of different sizes are available and suitable for all sample vials.



Part Number	Size (mm)	Packing	Description
RLMIC-VR02	18*90*25	1	Vial Rack, 50#, Hole Diameter 12.5mm for 2ml Vials
RLMIC-VR04	230*112*30	1	Vial Rack, 50#, Hole Diameter 16.5mm for 4ml Vials
RLMIC-VR20	290*140*35	1	Vial Rack, 50#, Hole Diameter 22.5mm for Headspace Vials
RLMIC-VR24	350*173*45	1	Vial Rack, 50#, Hole Diameter 28.5mm for 24-400 Vials

### Crimper and Decrimper

- Crimpers provide a secure vial closure.
- Manual Decrimpers allow easy removal of aluminum seals without breakage.



Part Number	Size (mm)	Packing	Description
RLMIC-CR11	Attaches 11mm Aluminium Crimp Seal	1	11mm Manual Crimper, Stainless Steel
RLMIC-CR20	Attaches 20mm Aluminium Crimp Seals	1	20mm Manual Crimper, Stainless Steel
RLMIC-DCR20	Removes 20mm Aluminium Crimp Seals	1	20mm Manual Decrimper, Stainless Steel

### HPLC Syringes



Part Number	Description
RLMIC-SY01	Disposable HPLC Syringe, 1ml, Slip
RLMIC-SY03	Disposable HPLC Syringe, 3ml, Slip
RLMIC-SY05	Disposable HPLC Syringe, 5ml, Slip
RLMIC-SY10	Disposable HPLC Syringe, 10ml, Slip
RLMIC-SY20	Disposable HPLC Syringe, 20ml, Slip
RLMIC-SY01L	Disposable HPLC Syringe, 1ml, Luer Lock
RLMIC-SY03L	Disposable HPLC Syringe, 3ml, Luer Lock
RLMIC-SY05L	Disposable HPLC Syringe, 5ml, Luer Lock
RLMIC-SY10L	Disposable HPLC Syringe, 10ml, Luer Lock
RLMIC-SY20L	Disposable HPLC Syringe, 20ml, Luer Lock



## SPE Columns

**Solid-phase extraction (SPE)** is a separation process by which compounds that are dissolved or suspended in a liquid mixture are separated from other compounds in the mixture according to their physical and chemical properties. Analytical laboratories use solid-phase extraction to concentrate and purify samples for analysis. Solid-phase extraction can isolate analytes of interest from various matrices, including urine, blood, water, beverages, soil, and animal tissue.

SPE is solvent consumption, convenience, safety and high efficiency. According to the principle of "like dissolves like," SPE can be classified into four types: Inverse SPE, Normal Phase SPE, Ion Exchange SPE, and Absorption SPE.



At RoyLab, we offer SPE Columns to our customers, which have Silica-Based, Organic Copolymer or Inorganic Chemical Based SPE columns.

The filling material includes **C18, NH2, C8, Alumina, GCB, CN, Florisil, Si, SAX, SCX, PSA, PCX, PAX** and so on. Column capacities consist of 1, 3, 6, and 10 ml sizes.

Our manufacturing process minimizes variability and improves recovery and cleanup procedures. SPE products have the following several characteristics.

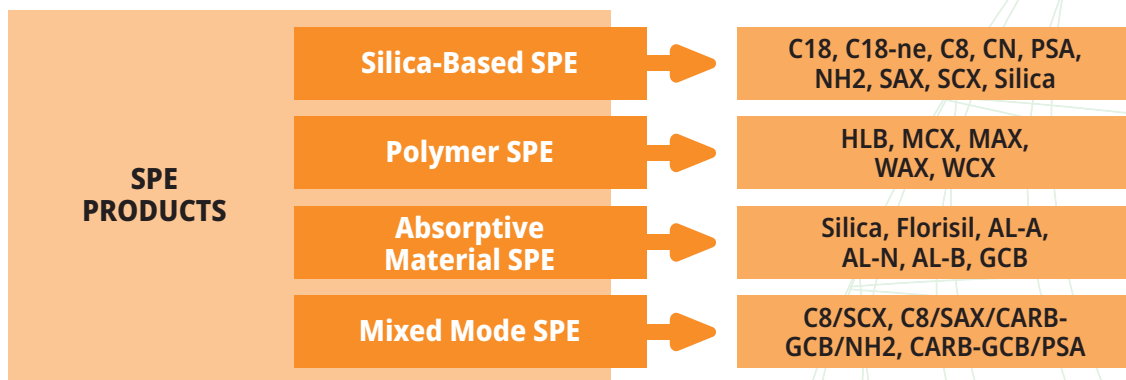


### Feature

- Available in a range of packing media.
- The quality sorbents for consistent results.
- With various packing to ensure better selectivity.

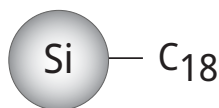
### Applications

- Biological Samples, and Natural Compounds.
- Pharmaceuticals, and Drugs.
- Pesticides and Antibiotics in food, and Agricultural Matrices.
- Environmental Samples, Organic Compounds, and Pollutants.



## Silica Base

### C18-ne

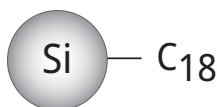


Partical Size: 40-60  $\mu\text{m}$ .  
Silica Base: irregular shaped.  
Pore Size: 52-68 Å.  
Endcapped: No.  
Carbon(©%): 17%.

- Non-endcapped bonded phase that enables the silica surface to be more active.
- Moderately nonpolar and polar secondary interactions.
- Enhanced the retention of polar and basic compounds than C18.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCC18N1001	C18-ne	100	1	100
RLMIC-SCC18N2003	C18-ne	200	3	50
RLMIC-SCC18N5003	C18-ne	500	3	50
RLMIC-SCC18N5006	C18-ne	500	6	30
RLMIC-SCC18N10006	C18-ne	1000	6	30

### C18

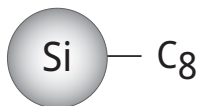


Partical Size: 40-60  $\mu\text{m}$ .  
Silica Base: irregular shaped.  
Pore Size: 52-68 Å.  
Endcapped: Yes.  
Carbon(©%): 17%.

- Organic analytes extraction C18 has the broadest spectrum of retention among bonded silica sorbents, since it retains most organic analytes from aqueous matrices, when the compounds of interest vary widely in structure.
- Desalting When analyzing small to intermediate molecules, chrompure C18 can be used for desalting aqueous matrices prior to ion exchange, as salts pass through the sorbent unretained.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCC181001	C18	100	1	100
RLMIC-SCC182003	C18	200	3	50
RLMIC-SCC185003	C18	500	3	50
RLMIC-SCC185006	C18	500	6	30
RLMIC-SCC1810006	C18	1000	6	30

## C8

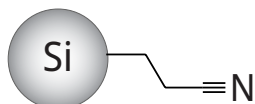


Partical Size: 40-60  $\mu\text{m}$ .  
Silica Base: irregular shaped.  
Pore Size: 52-68 Å.  
Endcapped: Yes.  
Carbon(©%): 11%.

- Moderate Hydrophobicity: Separating a wide range of compounds and replace C18 when too strongly retention on C18.
- Simultaneous Extraction: Fat- and water- solution vitamins from human serum and herbicides, fungicides, pesticides from waste.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCC81001	C8	100	1	100
RLMIC-SCC82003	C8	200	3	50
RLMIC-SCC85003	C8	500	3	50
RLMIC-SCC85006	C8	500	6	30
RLMIC-SCC810006	C8	1000	6	30

## CN

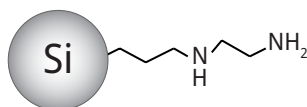


Partical Size: 40-60  $\mu\text{m}$ .  
Silica Base: irregular shaped.  
Pore Size: 52-68 Å.  
Endcapped: Yes.  
Carbon(©%): 6.5%.

- Both normal and reversed-phase chromatography.
- Less polar compared to silica and less hydrophobic compared to C18 and C8.
- Usually used to extract acidic, neutral, and basic compounds from aqueous solutions.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCCN1001	CN	100	1	100
RLMIC-SCCN5003	CN	500	3	50
RLMIC-SCCN10006	CN	1000	6	30

## PSA

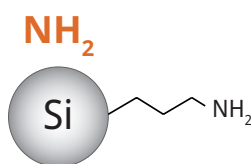


Partical Size: 40-60  $\mu\text{m}$ .  
Silica Base: irregular shaped.  
Pore Size: 52-68 Å.  
Endcapped: No.  
Carbon(C%): 7%.  
PKa: 10.1 and 10.9.

- Similar selectivity to Chrompure  $\text{NH}_2$ .
- Strong affinity and high capacity for removing fatty acids, organic acids, and some polar pigments and sugars when conducting multi-residue pesticide analysis in foods.
- Excellent sorbent for chelation.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCPSA1001	PSA	100	1	100
RLMIC-SCPSA5003	PSA	500	3	50
RLMIC-SCPSA5006	PSA	500	6	30
RLMIC-SCPSA10006	PSA	1000	6	30



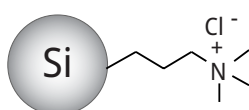


Partical Size: 40-60µm.  
Silica Base: irregular shaped.  
Pore Size: 52-68Å.  
Endcapped: No.  
Carbon(C%): 3.5%.  
PK<sub>a</sub> 9.8

- Aminopropyl phase, both hydrogen bonding and anion exchange.
- Weaker anion exchanger retention of very strong anions such as sulfonic acids which may be retained irreversible on SAX.
- Separate peptides, drugs and metabolites from physiological fluids, and extraction of mono- and polysaccharides, steroids, cholesterol and triglycerides.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCNH21001	NH2	100	1	100
RLMIC-SCNH22003	NH2	200	3	50
RLMIC-SCNH25003	NH2	500	3	50
RLMIC-SCNH25006	NH2	500	6	30
RLMIC-SCNH210006	NH2	1000	6	30

**SAX**

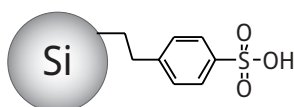


Partical Size: 40-60µm.  
Silica Base: irregular shaped.  
Pore Size: 52-68 Å.  
Endcapped: No.  
Carbon(C%): 7.5%.  
PK<sub>a</sub>: Completely dissociated.

- Strongest anion exchange sorbent because of its quaternary amine functional group.
- Positive charged, better retention of weaker anions such as carboxylic acids that may not retain strongly enough on PSA or NH<sub>2</sub>.
- Activate the ion exchanger by conditioning it with appropriate buffers.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCSAX1001	SAX	100	1	100
RLMIC-SCSAX5003	SAX	500	3	50
RLMIC-SCSAX5006	SAX	500	6	30

**SCX**



Partical Size: 40-60µm.  
Silica Base: irregular shaped.  
Pore Size: 52-68 Å.  
Endcapped: No.  
Carbon(C%): 10.9%.  
PK<sub>a</sub> <1.0.

- Strongest cation exchange sorbent because of its benzenesulfonic acid functional group.
- Optimized for use in organic applications.
- Nonpolar character exhibited by benzene ring is useful to compounds with both cationic and nonpolar properties in aqueous solvent.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCSCX1001	SCX	100	1	100
RLMIC-SCSCX5003	SCX	500	3	50
RLMIC-SCSCX5006	SCX	500	6	30

## Inorganic Chemical Base

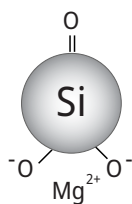


Partical Size: 40-60  $\mu\text{m}$ .  
Silica Base: irregular shaped.  
Pore Size: 52-68Å.  
Endcapped: No.

- The most polar sorbent, one of the best sorbents available for selectively separating analytes of very similar structure.
- Extract various compounds from non-polar solvents using hydrogen bonding, accomplishing the elution successively with increasing the solvent polarity.
- Excellent capacity for removing target molecules from the reaction by-products and excess reagents.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCSI1001	Silica	100	1	100
RLMIC-SCSI5003	Silica	500	3	50
RLMIC-SCSI10006	Silica	1000	6	30

### Florisil



Average Partical Size: 150-200 $\mu\text{m}$ .  
Silica Base: irregular shaped.

- Florisil is a magnesia silica gel, a polar sorbent capable to extract polar compounds from the nonpolar matrix.
- Separate chlorinated pesticides, amines, herbicides, PCBs, ketones, organic acids, and phenols.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCFL1001	Florisil	100	1	100
RLMIC-SCFL5003	Florisil	500	3	50
RLMIC-SCFL5006	Florisil	500	6	30
RLMIC-SCFL10006	Florisil	1000	6	30

### Alumina-A



Acidic pH: ~4.5.  
(Brockman Act. I)  
Average Partical Size: 125 $\mu\text{m}$ .  
Silica Base: irregular shaped.

- Alumina-A enhances Lewis acid properties, which makes the sorbent more retentive towards electron-rich compounds.
- Alumina-A has a slightly cationic nature through pretreatment with acidic solutions.
- Suitable for retention neutral and anionic species.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCALA1001	AL-A	100	1	100
RLMIC-SCALA5003	AL-A	500	3	50
RLMIC-SCALA10006	AL-A	1000	6	30

## Alumina-B



Basic pH: ~10.0 .  
(Brockman Act. I)  
Average Partical Size: 125µm.  
Silica Base: irregular shaped.

- Exhibits Lewis base properties, more retentive towards electron-donors compounds.
- The surface has a slightly anionic nature through pretreatment with acidic solutions.
- Suitable for retention of neutral and cationic compounds.
- Strong hydrogen bonding is also effective for polar cations.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCALB1001	AL-B	100	1	100
RLMIC-SCALB5003	AL-B	500	3	50
RLMIC-SCALB10006	AL-B	1000	6	30

## Alumina-N



Neutral pH: ~7.5.  
(Brockman Act. I)  
Average Partical Size: 125µm.  
Silica Base: irregular shaped.

- The highly polar sorbent is similar to silica.
- More stable under high pH conditions than unbonded silica.
- An electrically neutral surface retentive for electron-rich compounds like aromatic species and aliphatic amines, and compounds with electronegative group like oxygen, phosphorus and sulfur atoms.
- Extract both nonpolar and polar compounds from aqueous and nonaqueous matrices respectively.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCALN1001	AL-N	100	1	100
RLMIC-SCALN5003	AL-N	500	3	50
RLMIC-SCALN10006	AL-N	1000	6	30

## Carbon

GCB

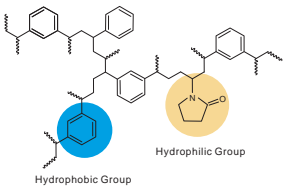
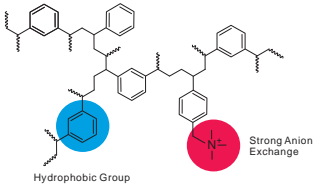
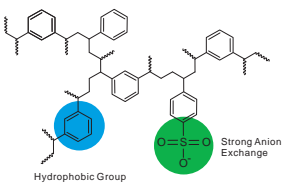
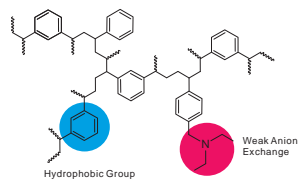
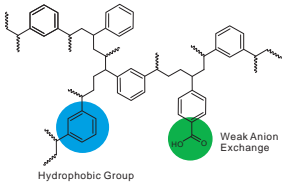
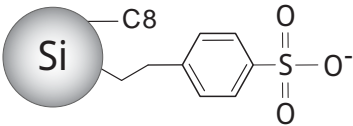
Sorbent: laminated structure  
graphitized carbon  
Average Partical Size: 120-400µm

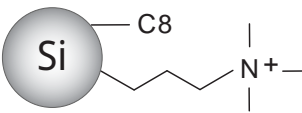
- Higher and more stable recovery rates in extracting polar substance, like organochlorine, organophosphorus and nitrogen pesticides.
- Excellent performance in organic extraction and purification.
- Extremely rapid extract processing due to the few-porosity.

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCGCB2503	GCB	250	3	50
RLMIC-SCGCB5003	GCB	500	3	50
RLMIC-SCGCB5006	GCB	500	6	30



## Organic Copolymer Base

<p><b>HLB</b></p> 	<p>Surface area: 600-800m<sup>2</sup>/g Particle size: 80-100µm Pore size: 70-90Å</p>	<ul style="list-style-type: none"> <li>• Copolymer of polystyrene/divinylbenzene, contained both hydrophilic and hydrophobic radicals.</li> <li>• Good retention on polar and non-polar molecule hydrophile lipophile balance.</li> <li>• PLS has higher stability and wider pH range. Popular utilised in food.</li> </ul>
<p><b>MAX</b></p> 	<p>Surface area: 600-800m<sup>2</sup>/g Particle size: 80-100µm Pore size: 70-90Å</p>	<ul style="list-style-type: none"> <li>• Sulfonic acid group bonding polystyrene divinylbenzene copolymer is mixed strong cation exchange sorbent. Both cation exchange and reverse phase retention mode, suitable for carboxylic acid compounds pKa between 2-8, mainly amonic compounds.</li> </ul>
<p><b>MCX</b></p> 	<p>Surface area: 600-800m<sup>2</sup>/g Particle size: 80-100µm Pore size: 70-90Å</p>	<ul style="list-style-type: none"> <li>• Quaternary ammonium group bonded copolymer is mixed anion exchange and reverse phase sorbent.</li> <li>• Excellent extraction to purified acid, carboxy acid compounds, pKa between 2-8.</li> </ul>
<p><b>WAX</b></p> 	<p>Surface area: 600-800m<sup>2</sup>/g Particle size: 80-100µm Pore size: 70-90Å</p>	<ul style="list-style-type: none"> <li>• Quaternary ammonium group bonded copolymer is mixed anion exchange and reverse phase sorbent.</li> <li>• Excellent extraction to purified acid, carboxy acid compounds, pKa between 2-8.</li> </ul>
<p><b>WCX</b></p> 	<p>Surface area: 600-800m<sup>2</sup>/g Particle size: 80-100µm Pore size: 70-90Å</p>	<ul style="list-style-type: none"> <li>• Quaternary ammonium group bonded copolymer is mixed anion exchange and reverse phase sorbent.</li> <li>• Excellent extraction to purified acid, carboxy acid compounds, pKa between 2-8.</li> </ul>
<p><b>C8/SCX</b></p> 	<p>Surface area: 510m<sup>2</sup>/g Particle size: 40-75µm Pore size: 70Å</p>	<ul style="list-style-type: none"> <li>• Moderate retention, avoiding extremely strong adsorption of some compounds.</li> <li>• Ideal for complicated samples such as blood and urine.</li> </ul>

<p><b>C8/SAX</b></p> 	<p>Surface area: 510m<sup>2</sup>/g Particle size: 40-75µm Pore size: 70Å</p>	<ul style="list-style-type: none"> <li>• Moderate retention, avoiding extremely strong adsorption of some compounds.</li> <li>• Ideal for complicated samples such as blood and urine.</li> </ul>
<p><b>Carbon GCB/NH<sub>2</sub></b></p>	<p>Carb-GCB: Surface area: 100-250m<sup>2</sup>/g Particle size: 48-150µm</p> <p>NH<sub>2</sub>: Carbon content: 4.5% Surface area: 200m<sup>2</sup>/g Particle size: 40-75µm Pore size: 100Å</p>	<ul style="list-style-type: none"> <li>• Ultrathin frit between two sorbent layers promising uniform flow.</li> <li>• Capable of removing interferences as thoroughly as possible.</li> </ul>
<p><b>Carbon GCB/PSA</b></p>	<p>Carb-GCB: Surface area: 100-250m<sup>2</sup>/g Particle size: 48-150µm</p> <p>NH<sub>2</sub>: Carbon content: 8% Surface area: 500m<sup>2</sup>/g Particle size: 50-75µm Pore size: 100Å</p>	<ul style="list-style-type: none"> <li>• Ultrathin frit between two sorbent layers promising uniform flow.</li> <li>• Capable of removing interferences as thoroughly as possible.</li> <li>• Higher capability than Carb-GCB/NH<sub>2</sub>.</li> </ul>

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCPLS0603	PLS	60	3	50
RLMIC-SCPLS1506	PLS	150	6	30
RLMIC-SCPLS2006	PLS	200	6	30
RLMIC-SCPLS5006	PLS	500	6	30
RLMIC-SCPLS5012	PLS	500	12	20

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCPCX0603	PCX	60	3	50
RLMIC-SCPCX1506	PCX	150	6	30
RLMIC-SCPCX2006	PCX	200	6	30
RLMIC-SCPCX5012	PCX	500	12	20
RLMIC-SCPCX10020	PCX	1000	20	20

Part Number	Description	Mass (mg)	Volume (ml)	Package (pcs/pk)
RLMIC-SCPAX0603	PAX	60	3	50
RLMIC-SCPAX1506	PAX	150	6	30
RLMIC-SCPAX5012	PAX	500	12	20
RLMIC-SCPAX10020	PAX	1000	20	20

## SPE Vacuum Manifold System



SPE vacuum manifold system process multiple samples simultaneously, saving time and effort.

These manifolds allow consistent extraction.

No possibility of cross-contamination from one sample to another.

### 12 Position SPE Manifold System

Part Number	Product Features		
RLMIC-SVM12S	Glass Chamber	Vacuum Gauge	12 Position Cover with Luer Fittings
	12 Retaining Clips	Gasket	4 Supports
	12 Individual Flow Control Stopcocks	12 Luer Plugs	3 Posts
	Valve Assemble	6 Shelves	Waster Container
	12 Guide Needles		

Part Number	Product Features		
RLMIC-SVM12	Glass Chamber	Vacuum Gauge	12 Guide Needles
	12 Retaining Clips	Gasket	4 Supports
	12 Luer Plugs	3 Posts	Valve Assemble
	6 Shelves	Waster Container	

### 24 Position SPE Manifold System

Part Number	Product Features		
RLMIC-SVM24S	Glass Chamber	Vacuum Gauge	24 Position Cover with Luer Fittings
	24 Retaining Clips	Gasket	4 Supports
	24 Individual Flow Control Stopcocks	24 Luer Plugs	3 Posts
	Valve Assemble	4 Shelves	24 Guide Needles

Part Number	Product Features		
RLMIC-SVM24	Glass Chamber	Vacuum Gauge	24 Position Cover with Luer Fittings
	24 Retaining Clips	Gasket	4 Supports
	24 Guide Needles	24 Luer Plugs	3 Posts
	Valve Assemble	4 Shelves	



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