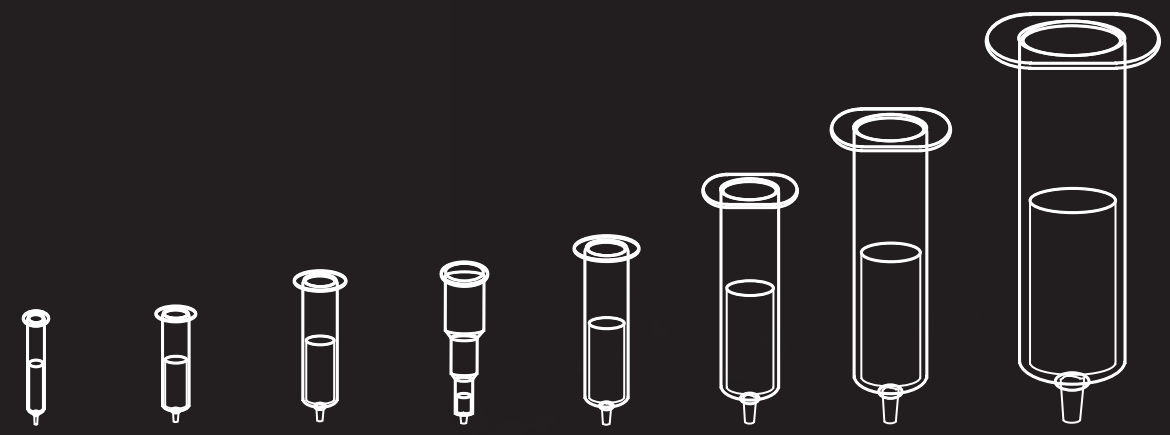
PHARMA

UCT

Rapid Purification Silica Phases

INNOVATION THROUGH CHEMISTRY

Reservoirs for Bonded Phase Extractions



CHEMISTRIES ARE OFFERED ON THESE SILICA SIZES...

Small Particle (5-20 µm)
Intermediate Particle (25-40 µm)
Standard Particle (40-60 µm)
Large Particle (125-210 µm)

Our sorbents can be packed in SPE columns, flash columns and well plates, and are also available in bulk quantities.

Stated Volume (mL)	Tube Configuration	Bed Diameter (mm)	Sorbent Mass (mg)
1	Cylindrical	5.5	50-200
3	Cylindrical	8.5	50-1000
6	Cylindrical	12.5	200-2000
10	Expanded	8.5	50-1000
15	Cylindrical	15.5	500-2000
25	Cylindrical	20	500-5000
75	Cylindrical	27.5	1000-10000
150	Cylindrical	38.0	1000-70000

PHARMA

Solid Phase Sorbent Selection

Organic Loading & Exchange Capacity

Hydrophobic Phases

Sorbent	Structure	% Organic Loading
C2 ethyl	$-SiCH_2CH_3$	6.60
C3 propyl	$-Si(CH_2)_2CH_3$	7.60
C4 n-butyl	$-Si(CH_2)_3CH_3$	8.50
Ci4 isobutyl	$-SiCH_2CH(CH_3)_2$	8.80
Ct4 tertiary	$-SiC(CH_3)_3$	8.50
C5 pentyl	$-Si(CH_2)_4CH_3$	9.50
C6 hexyl	$-Si(CH_2)_5CH_3$	11.00
C7 heptyl	$-Si(CH_2)_6CH_3$	11.00
C8 octyl	$-Si(CH_2)_7CH_3$	11.10
C10 n-decyl	$-Si(CH_2)_9CH_3$	15.70
C12 n-dodecyl	$-Si(CH_2)_{11}CH_3$	15.50
C18 octadecyl	$-Si(CH_2)_{17}CH_3$	21.70
C20 eicosyl	$-Si(CH_2)_{19}CH_3$	24.30
C30 tricontyl	$-Si(CH_2)_{29}CH_3$	26.00
Cyclohexyl	-Si	11.60
Phenyl	-Si	11.00

Hydrophilic Phases

Sorbent	Structure	% Organic Loading
Silica	-SiOH	N/A
Diol	$-Si(CH_2)_3OCH_2-CHOHCH_2OH$	8.00
Cyanopropyl	$-Si(CH_2)_3CN$	6.90
Florisil®		N/A
Alumina-Acid		N/A
Alumina-Neutral		N/A
Alumina-Base		N/A
Carbon		N/A
Dimercaptotriazine (DMT)		N/A

Solid Phase Sorbent Selection

Organic Loading & Exchange Capacity

Ion Exchange - Anion Extraction Phases

Sorbent	Structure	pKa	% Organic Loading	Exchange Capacity (meq/g)
Aminopropyl (1° amine)	$-Si(CH_2)_3NH_2$	9.8	6.65	0.310
N-2 Aminoethyl (1° & 2° amine)	$-Si(CH_2)_3NH(CH_2)_2NH_2$	10.1, 10.9	9.70	0.320
Diethylamino (3° amine)	$-Si(CH_2)_3N(CH_2CH_3)_2$	10.6	8.40	0.280
Triamine (1° & 2° amines)	$-Si(CH_2)_3NH(CH_2)_2NH(CH_2)_2NH_2$	10.75	13.5-15	1.2
Quaternary Amine with Chloride counter ion	$-Si(CH_2)_3N^+(CH_3)_3\ Cl^-$	Always Charged	8.40	0.250
Quaternary Amine with Acetate counter ion	$-Si(CH_2)_3N^+(CH_3)_3\ \ CH_3CO_2^-$	Always Charged	8.40	0.250
Quaternary Amine with Hydroxide counter ion	$-Si(CH_2)_3N^+CH_3)_3\ OH^-$	Always Charged	8.40	0.250
Quaternary Amine with Formate counter ion	$-Si(CH_2)_3N^+(CH_3)_3\ CHO_2^-$	Always Charged	8.40	0.250
Polyimine	$-Si(CH_2)_3-R-[NHCH_2CH_2]_X$	Always Charged	13.5	0.85

Ion Exchange - Cation Extraction Phases

Sorbent	Structure	pKa	% Organic Loading	Exchange Capacity (meq/g)
Carboxylic Acid	$-SiCH_2COOH$	4.8	9.10	0.170
Propylsulfonic Acid	$-Si(CH_2)_3SO_3H$	<1	7.10	0.180
Benzenesulfonic Acid	$-Si-(CH_2)_2-$ $-SO_3H$	Always Charged	11.00	0.320
Benzenesulfonic Acid High Load	$-Si-(CH_2)_2-$ $-SO_3H$	Always Charged	15.00	0.650
Triacetic Acid	$-Si(CH_2)_3NH-(CH_2)_2-N(CH_2COOH)_2$ $\vert$ CH_2COOH		7.61	Anion 0.17 Cation 0.06

CLEAN-UP®

PHARMA

Solid Phase Sorbent Selection

Organic Loading & Exchange Capacity

Copolymeric (Multifunctional Phases)

Sorbent	Structure	% Organic Loading	Exchange Capacity (meq/g)
Aminopropyl + C8	$-Si(CH_2)_3NH_2$ & $-Si(CH_2)_7CH_3$	12.3	0.163
Quaternary Amine + C8	$-Si(CH_2)_3N+(CH_3)_3$ & $-Si(CH_2)_7CH_3$	13.60	0.160
Carboxylic Acid + C8	$-SiCH_2COOH$ & $-Si(CH_2)_7CH_3$	12.50	0.105
Propylsulfonic Acid + C8	$-Si(CH_2)_3SO_3H$ & $-Si(CH_2)_7CH_3$	14.62	0.114
Benzenesulfonic Acid + C8	$-Si-(CH_2)_2-$⊖$-SO_3H$ & $-Si-(CH_2)_7CH_3$	12.30	0.072
Cyanopropyl + C8	$-Si(CH_2)_3CN$ & $-Si(CH_2)_7CH_3$	14.60	0.163
Cyclohexyl + C8	-Si-⬡ & $-Si-(CH_2)_7CH_3$	N/A	N/A

Covalent Phases

Sorbent	Structure	% Organic Loading
Epoxy	$-Si-(CH_2)_3-O-CH_2-CH(O)-CH_2$	N/A
Aldehyde	$-Si(CH_2)_4CHO$	N/A
Isocyanate	$-Si(CH_2)_3NCO$	7.1
Thiopropyl	$-Si(CH_2)_3SH$	7.5-9.5
Thiopropyl High Load	$-Si(CH_2)_3SH$	13.5

UCT

PRICES AND TERMS

Our prices are subject to change without notice. The price in effect when we receive your order will apply. All prices are in US Dollars and are F.O.B. Lewistown, PA 17044. Terms of payment are net 30 days.

MINIMUM ORDERS

We welcome all orders, therefore, we do not have a minimum order requirement. When ordering, please include your purchase order number, complete "Ship To" and "Bill To" address, catalog number, quantity, and description of product(s). Also include your name and a phone number where you can be reached should we have any questions concerning your order.

SHIPMENTS

Normal processing is within 24 hours after receipt of an order. Unless special shipping requests have been made, our trained staff will send all orders by UPS Ground service. The appropriate shipping charges (freight & insurance costs) will be added to the invoice, unless otherwise instructed by the customer.

SPECIAL PRICING

We offer special pricing for volume purchases and standing orders. These discounts apply to bonded phase extraction column purchases only. Please call a sales representative for more information on special pricing qualifications.

RETURN POLICY

Our Quality Manager will handle all returns. Before returning merchandise, please call to obtain a return authorization number from the quality manager. We will need to know the reason for the return, date of purchase, purchase order number and invoice number in order to issue a return authorization number. Return merchandise must be received before a credit can be issued. Returns will not be accepted after 90 days. A restocking fee of 25% of the price paid, or a minimum of $25.00 (whichever is greater) will be charged on all returns.

WARRANTY

All products manufactured by UCT are guaranteed against defects in materials and workmanship for a period of 90 days after shipment. UCT will replace any items that prove to be defective during this time period. The exclusive remedy requires the end user to first advise UCT of the defective product by phone or in writing and must include order number, the lot number and the shipping date.

To initiate this action, photographs of the product, including packaging and labeling of the containers, must be submitted to the UCT Representative for approval. With approval a return authorization can be initiated, and must be received within 30 days. Once the materials arrive at UCT a further inspection of the materials must be completed and accepted by our Quality Manager prior to further action of credits or replacement. UCT's total liability is limited to the replacement cost of UCT products.

This warranty does not apply to damage resulting from misuse.

Placing An Order

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Mail

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Technical Support

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