

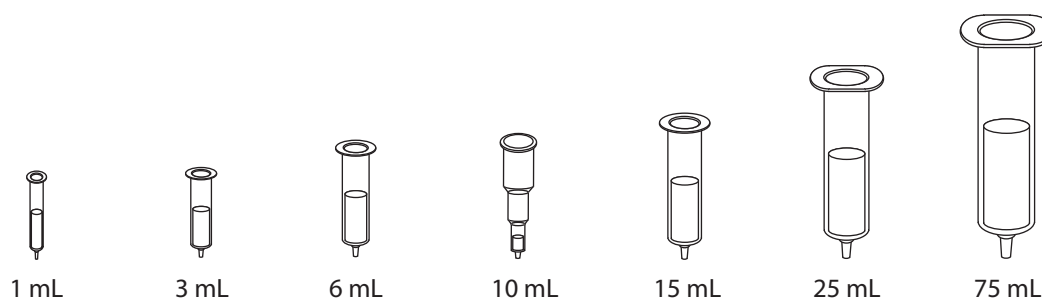


UNITED CHEMICAL TECHNOLOGIES, INC.

Rapid Purification Products



Reservoirs for Bonded Phase Extractions



United Chemical Technologies' Trademarks
CLEAN SCREEN® / CLEAN-UP® / ENVIRO-CLEAN®
SELECTRASORB™ / STYRE SCREEN™ / XtrackT®

Chemistries are offered on these silica sizes...

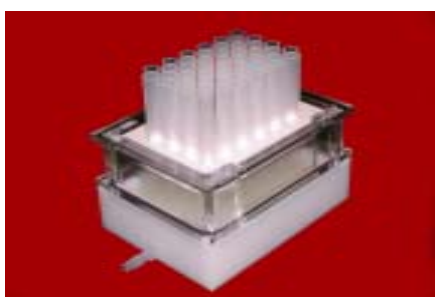
Small Particle (5-20 μm)
Intermediate Particle (25-40 μm)
Standard Particle (40-60 μm)
Large Particle (125-210 μm)

and are available in the following formats

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



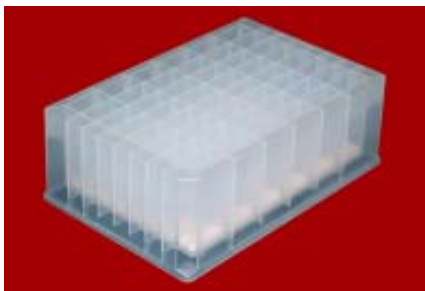
Mini-block Tubes



Universal Vacuum Manifold
(Accommodates 24, 48 & 96 Well Plate Configuration)



Disposable 48 Well Plate



48 Deep Well Plate



96 Deep Well Plate




Flash Chromatography Columns


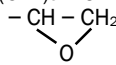




Bulk Sorbents

Solid Phase Sorbent Selection

Organic Loading & Exchange Capacity



Sorbent	Structure	% Organic Loading	Applications	
Reverse Phase (Hydrophobic)				
C2 ethyl	-SiCH ₂ CH ₃	6.60	Removes larger or more hydrophobic compounds.	
C3 propyl	-Si(CH ₂) ₂ CH ₃	7.60		
C4 n-butyl	-Si(CH ₂) ₃ CH ₃	8.50		
Ci4 isobutyl	-SiCH ₂ CH(CH ₃) ₂	8.80		
Ct4 tertiary butyl	-SiC(CH ₃) ₃	8.50		
C5 pentyl	-Si(CH ₂) ₄ CH ₃	9.50		
C6 hexyl	-Si(CH ₂) ₅ CH ₃	11.00		
C7 heptyl	-Si(CH ₂) ₆ CH ₃	NOT TESTED		
C8 octyl	-Si(CH ₂) ₇ CH ₃	11.1		
C10 decyl	-Si(CH ₂) ₉ CH ₃	15.70		
C12 dodecyl	-Si(CH ₂) ₁₁ CH ₃	NOT TESTED		
C18 octadecyl	-Si(CH ₂) ₁₇ CH ₃	21.70		
C20 eicosyl	-Si(CH ₂) ₁₉ CH ₃	24.30	Removes smallest or least hydrophobic compounds.	
C30 tricontyl	-Si(CH ₂) ₂₉ CH ₃	26.00		
Cyclohexyl	-Si 	11.60	Scavenger for phenolic compounds.	
Phenyl	-Si 	11.00	Scavenger for polar compounds.	
Sorbent	Structure	% Organic Loading	Exchange Capacity (meq/g)	Applications
Normal Phase (Hydrophilic)				
Silica	-SiOH	N/A	N/A	Removal of hydrophilic (polar) impurities, purification of hydrophilic (polar) compounds.
Diol	-Si(CH ₂) ₃ OCH ₂ -CHOHCH ₂ OH	8.00	N/A	Removal of hydrophilic (polar) impurities, purification of hydrophilic (polar) compounds.
Cyanopropyl	-Si(CH ₂) ₃ CN	6.90	N/A	Removes steroid type compounds.
Florisil®		N/A	N/A	Removes polar type compounds.
Alumina-Acid		N/A	N/A	Removes polar type compounds.
Alumina-Neutral		N/A	N/A	Removes polar type compounds.
Alumina-Base		N/A	N/A	Removes polar type compounds.
Carbon		N/A	N/A	Removes polar type compounds.

Sorbent	Structure	% Organic Loading	Exchange Capacity (meq/g)	Applications
Copolymeric (Mixed Phase)*				
Aminopropyl + C8	-Si(CH ₂) ₃ NH ₂ & -Si(CH ₂) ₇ CH ₃	12.3	0.163	Dual functionality for strong acids and hydrophobic compounds.
Quaternary Amine + C8	-Si(CH ₂) ₃ N ⁺ (CH ₂) ₃ & -Si(CH ₂) ₇ CH ₃	13.60	0.160	Dual functionality for weak acids and hydrophobic compounds.
Carboxylic Acid + C8	-SiCH ₂ COOH & -Si(CH ₂) ₇ CH ₃	12.50	0.105	Dual functionality for strong base and hydrophobic compounds.
Propylsulfonic Acid + C8	-Si(CH ₂) ₃ SO ₃ H & Si(CH ₂) ₇ CH ₃	14.62	0.114	Dual functionality for weak bases and hydrophobic compounds.
Benzenesulfonic Acid + C8	-Si-(CH ₂) ₂ - [⊖] -SO ₃ H & -Si-(CH ₂) ₇ CH ₃	12.30	0.072	Dual functionality for weak bases and hydrophobic compounds.
Cyanopropyl + C8	-Si(CH ₂) ₃ CN & -Si(CH ₂) ₇ CH ₃	14.60	0.163	Dual functionality for polar and hydrophobic compounds.
Cyclohexyl + C8	-Si-  & -Si-(CH ₂) ₇ CH ₃	N/A	N/A	Dual functionality for phenols and hydrophobic compounds.
Covalent Phases				
Epoxy	-Si-(CH ₂) ₃ - O - CH ₂ - CH - CH ₂ 	N/A	N/A	Covalent bond formation with proteins, amines and other nucleophiles.
Aldehyde	-Si(CH ₂) ₄ CHO	N/A	N/A	Scavenger for primary amines, hydrazines, reducing agents and other nucleophiles. Covalent bonding for proteins, enzymes and other bioactive molecules.
Isocyanate	-Si(CH ₂) ₃ NCO	7.1	N/A	Scavenger for amines, alkoxides and other nucleophiles.
Thiopropyl	-Si(CH ₂) ₃ SH	6.50	N/A	Scavenger for alkylating agents, alcohols and amines.

Sorbent	Structure	pK _a	% Organic Loading	Exchange Capacity (meq/g)	Applications
Ion Exchange					
Anion					
Aminopropyl (1° amine)	-Si(CH ₂) ₃ NH ₂	9.8	6.65	0.310	Scavenger for acids, cyclic compounds, cholesterol, and other liquid type compounds.
n-2 Aminoethyl (2° amine)	-Si(CH ₂) ₃ NH(CH ₂) ₂ NH ₂	10.1, 10.9	9.70	0.320	Scavenger for acids, cyclic compounds, cholesterol, and other liquid type compounds.
Diethylamino (3° amine)	-Si(CH ₂) ₃ N(CH ₂ CH ₃) ₂	10.6	8.40	0.280	Scavenger for acids, cyclic compounds, cholesterol, and other liquid type compounds.
Quaternary Amine with Chloride counter ion	-Si(CH ₂) ₃ N ⁺ (CH ₃) ₃	Always Charged	8.40	0.250	Scavenger for acids and sulfonyl chlorides, isocyanates and weak electrophiles. Useful when charge on ion being removed is stronger than the chloride counter ion.
Quaternary Amine with Acetate counter ion	-Si(CH ₂) ₃ N ⁺ (CH ₃) ₃	Always Charged	8.40	0.250	Scavenger for acids and sulfonyl chlorides, isocyanates and weak electrophiles. Useful when charge on ion being removed is stronger than the acetate counter ion.
Quaternary Amine with Hydroxide counter ion	-Si(CH ₂) ₃ N ⁺ (CH ₃) ₃	Always Charged	8.40	0.250	Scavenger for acids and sulfonyl chlorides, isocyanates and weak electrophiles. Useful when charge on ion being removed is stronger than the hydroxide counter ion.
Quaternary Amine with Formate counter ion	-Si(CH ₂) ₃ N ⁺ (CH ₃) ₃	Always Charged	8.40	0.250	Scavenger for acids and sulfonyl chlorides, isocyanates and weak electrophiles. Useful when charge on ion being removed is stronger than the formate counter ion.
Polyimine	-Si(CH ₂) ₃ -R-[NHCH ₂ CH ₂] _X		13.5	0.88	Scavenger for acids and sulfonyl chlorides, isocyanates and other electrophiles.
Cation					
Carboxylic Acid	-SiCH ₂ COOH	4.8	9.10	0.170	Scavenger for strong amines with quats.
Propylsulfonic Acid	-Si(CH ₂) ₃ SO ₃ H	<1	7.10	0.180	Scavenger for amines, alcohols and other nucleophiles.
Benzenesulfonic Acid	-Si-(CH ₂) ₂ -  -SO ₃ H	Always Charged	11.00	0.320	Scavenger for amines, alcohols and other nucleophiles.
Benzenesulfonic Acid High Load	-Si-(CH ₂) ₂ -  -SO ₃ H	Always Charged	15.00	0.650	Scavenger for amines, alcohols and other nucleophiles.
Triacetic Acid	-Si(CH ₂) ₃ N(CH ₂ COOH)(CH ₂) ₂ N(CH ₂ COOH) ₂		7.61	Anion 0.17 & Cation 0.06	Chelator for metal ions.

Summary of all phases

Reverse Phase (Hydrophobic)

SORBENT	SORBENT CODE	STRUCTURE
C2 ethyl	CO2	-SiCH ₂ CH ₃
C3 propyl	CO3	-Si-(CH ₂) ₂ CH ₃
C4 n-butyl	Cn4	-Si-(CH ₂) ₃ CH ₃
Ci4 isobutyl	Ci4	-Si-CH ₂ CH(CH ₃) ₂
Ct4 tertiary butyl	Ct4	-Si-C(CH ₃) ₃
C5 pentyl	CO5	-Si-(CH ₂) ₄ CH ₃
C6 hexyl	CO6	-Si-(CH ₂) ₅ CH ₃
C7 heptyl	CO7	-Si-(CH ₂) ₆ CH ₃
C8 octyl	CO8	-Si-(CH ₂) ₇ CH ₃
C10 decyl	C10	-Si-(CH ₂) ₉ CH ₃
C12 dodecyl	C12	-Si-(CH ₂) ₁₁ CH ₃
C18 octadecyl	C18	-Si-(CH ₂) ₁₇ CH ₃
C20 eicosyl	C20	-Si-(CH ₂) ₁₉ CH ₃
C30 tricontyl	C30	-Si-(CH ₂) ₂₉ CH ₃
Cyclohexyl	CYH1	-Si- 
Phenyl	PHY1	-Si- 

Normal Phase (Hydrophilic)



Silica	SIL1	-SiOH
Diol	DOL1	-Si-(CH ₂) ₃ OCH ₂ CHOHCH ₂ OH
Cyanopropyl	CNP1	-Si-(CH ₂) ₃ CN
Florisil [®]	FLS1	
Alumina-Acid	ALA1	
Alumina-Neutral	ALN1	
Alumina-Base	ALB1	
Carbon	CAR1	

Ion Exchange



Anion

			pKa
Aminopropyl (1° amine)	NAX1	-Si-(CH ₂) ₃ NH ₂	9.8
n-2 aminoethyl (2° amine)	PSA1	-Si-(CH ₂) ₃ NH(CH ₂) ₂ NH ₂	10.1, 10.9
Diethylamino (3° amine)	DAX1	-Si-(CH ₂) ₃ N(CH ₂ CH ₃) ₂	10.6
Quaternary Amine Chloride	QAX1	-Si-(CH ₂) ₃ N ⁺ (CH ₃) ₃	always charged
Quaternary Amine Hydroxide	CHQAX1	-Si-(CH ₂) ₃ N ⁺ (CH ₃) ₃	always charged
Quaternary Amine Acetate	CAQAX1	-Si-(CH ₂) ₃ N ⁺ (CH ₃) ₃	always charged
NEW Quaternary Amine Formate	CFQAX1	-Si-(CH ₂) ₃ N ⁺ (CH ₃) ₃	always charged
Polyimine	PAX1	-Si-(CH ₂) ₃ -R-[NHCH ₂ CH ₂] _x	

Cation

Carboxylic Acid	CCX1	-Si-CH ₂ COOH	4.8
Propylsulfonic Acid	PCX1	-Si-(CH ₂) ₃ SO ₃ H	<1
Benzenesulfonic Acid	BCX1	-Si-(CH ₂) ₂ -  -SO ₃ H	always charged
Benzenesulfonic Acid High Load	BCXHL1	-Si-(CH ₂) ₂ -  -SO ₃ H	always charged
NEW Triacetic Acid	TAX1	-Si-(CH ₂) ₃ N(CH ₂ COOH)(CH ₂) ₂ N(CH ₂ COOH) ₂	

Copolymeric (Mixed Phase)*

Aminopropyl + C8	NAX2	-Si-(CH ₂) ₃ NH ₂ & -Si-(CH ₂) ₇ CH ₃
Quaternary Amine + C8	QAX2	-Si-(CH ₂) ₃ N ⁺ (CH ₃) ₃ & -Si-(CH ₂) ₇ CH ₃
Carboxylic Acid + C8	CCX2	-Si-CH ₂ COOH & -Si-(CH ₂) ₇ CH ₃
Propylsulfonic Acid + C8	PCX2	-Si-(CH ₂) ₃ SO ₃ H & -Si-(CH ₂) ₇ CH ₃
Benzenesulfonic Acid + C8	BCX2	-Si-(CH ₂) ₂ -  -SO ₃ H & -Si-(CH ₂) ₇ CH ₃
Cyanopropyl + C8	CNP2	-Si-(CH ₂) ₃ CN & -Si-(CH ₂) ₇ CH ₃
Cyclohexyl + C8	CYH2	-Si-  & -Si-(CH ₂) ₇ CH ₃

Covalent Phases

Epoxy	EPX	-Si-(CH ₂) ₃ -O-CH ₂ -CH-CH ₂
NEW Aldehydic	ALD	-Si-(CH ₂) ₄ CHO
Isocyanate	ICN	-Si-(CH ₂) ₃ NCO
Thiopropyl	THX	-Si-(CH ₂) ₃ SH

*UCT manufactures true copolymeric sorbents by dually reacting their high purity silicas. The product is not a mixed bed sorbent.

CLEAN UP® Hydrophobic Solid Phase Extraction Columns

C18, OCTADECYL

<u>part number</u>	<u>part number</u>	<u>amount sorbent/</u>	<u>units</u>
<u>endcapped</u>	<u>unendcapped</u>	<u>tube volume</u>	<u>per pack</u>
CEC181L1	CUC181L1	50mg/1ml	100
CEC18111	CUC18111	100mg/1ml	100
CEC18113	CUC18113	100mg/3ml	40
CEC18123	CUC18123	200mg/3ml	50
CEC18153	CUC18153	500mg/3ml	50
CEC18156	CUC18156	500mg/6ml	50
CEC1811Z	CUC1811Z	100mg/10ml	50
CEC1812Z	CUC1812Z	200mg/10ml	50
CEC1815Z	CUC1815Z	500mg/10ml	50
CEC181M6	CUC181M6	1g/6ml	30
CEC1812M15	CUC1812M15	2g/15ml	20
CEC1815M25	CUC1815M25	5g/25ml	20
CEC18110M75	CUC18110M75	10g/75ml	10

C2, ETHYL

CEC021L1	CUC021L1	50mg/1ml	100
CEC02111	CUC02111	100mg/1ml	100
CEC02113	CUC02113	100mg/3ml	40
CEC02123	CUC02123	200mg/3ml	50
CEC02153	CUC02153	500mg/3ml	50
CEC02156	CUC02156	500mg/6ml	50
CEC0211Z	CUC0211Z	100mg/10ml	50
CEC0212Z	CUC0212Z	200mg/10ml	50
CEC0215Z	CUC0215Z	500mg/10ml	50
CEC021M6	CUC021M6	1g/6ml	30
CEC0212M15	CUC0212M15	2g/15ml	20
CEC0215M25	CUC0215M25	5g/25ml	20
CEC02110M75	CUC02110M75	10g/75ml	10

nC3, PROPYL

CECn31L1	CUCn31L1	50mg/1ml	100
CECn3111	CUCn3111	100mg/1ml	100
CECn3123	CUCn3123	200mg/3ml	50
CECn3153	CUCn3153	500mg/3ml	50
CECn3156	CUCn3156	500mg/6ml	50
CECn311Z	CUCn311Z	100mg/10ml	50
CECn312Z	CUCn312Z	200mg/10ml	50
CECn315Z	CUCn315Z	500mg/10ml	50
CECn31M6	CUCn31M6	1g/6ml	30
CECn312M15	CUCn312M15	2g/15ml	20
CECn315M25	CUCn315M25	5g/25ml	20
CECn3110M75	CUCn3110M75	10g/75ml	10

nC4, n-BUTYL

CECn41L1	CUCn41L1	50mg/1ml	100
CECn4111	CUCn4111	100mg/1ml	100
CECn4123	CUCn4123	200mg/3ml	50
CECn4153	CUCn4153	500mg/3ml	50
CECn4156	CUCn4156	500mg/6ml	50
CECn411Z	CUCn411Z	100mg/10ml	50
CECn412Z	CUCn412Z	200mg/10ml	50
CECn415Z	CUCn415Z	500mg/10ml	50
CECn41M6	CUCn41M6	1g/6ml	30
CECn412M15	CUCn412M15	2g/15ml	20
CECn415M25	CUCn415M25	5g/25ml	20
CECn4110M75	CUCn4110M75	10g/75ml	10

iC4, ISOBUTYL

<u>part number</u>	<u>part number</u>	<u>amount sorbent/</u>	<u>units</u>
<u>endcapped</u>	<u>unendcapped</u>	<u>tube volume</u>	<u>per pack</u>
CECi41L1	CUCi41L1	50mg/1ml	100
CECi4111	CUCi4111	100mg/1ml	100
CECi4123	CUCi4123	200mg/3ml	40
CECi4153	CUCi4153	500mg/3ml	50
CECi4156	CUCi4156	500mg/6ml	50
CECi411Z	CUCi411Z	100mg/10ml	50
CECi412Z	CUCi412Z	200mg/10ml	50
CECi415Z	CUCi415Z	500mg/10ml	50
CECi41M6	CUCi41M6	1g/6ml	30
CECi412M15	CUCi412M15	2g/15ml	20
CECi415M25	CUCi415M25	5g/25ml	20
CECi4110M75	CUCi4110M75	10g/75ml	10

tC4, TERTIARY BUTYL

CECi41L1	CUCi41L1	50mg/1ml	100
CECi4111	CUCi4111	100mg/1ml	100
CECi4123	CUCi4123	200mg/3ml	50
CECi4153	CUCi4153	500mg/3ml	50
CECi4156	CUCi4156	500mg/6ml	50
CECi411Z	CUCi411Z	100mg/10ml	50
CECi412Z	CUCi412Z	200mg/10ml	50
CECi415Z	CUCi415Z	500mg/10ml	50
CECi41M6	CUCi41M6	1g/6ml	30
CECi412M15	CUCi412M15	2g/15ml	20
CECi415M25	CUCi415M25	5g/25ml	20
CECi4110M75	CUCi4110M75	10g/75ml	10

C5, PENTYL

CEC051L1	CUC051L1	50mg/1ml	100
CEC05111	CUC05111	100mg/1ml	100
CEC05123	CUC05123	200mg/3ml	50
CEC05153	CUC05153	500mg/3ml	50
CEC05156	CUC05156	500mg/6ml	50
CEC0511Z	CUC0511Z	100mg/10ml	50
CEC0512Z	CUC0512Z	200mg/10ml	50
CEC0515Z	CUC0515Z	500mg/10ml	50
CEC051M6	CUC051M6	1g/6ml	30
CEC0512M15	CUC0512M15	2g/15ml	20
CEC0515M25	CUC0515M25	5g/25ml	20
CEC05110M75	CUC05110M75	10g/75ml	10

C6, HEXYL

CEC061L1	CUC061L1	50mg/1ml	100
CEC06111	CUC06111	100mg/1ml	100
CEC06123	CUC06123	200mg/3ml	50
CEC06153	CUC06153	500mg/3ml	50
CEC06156	CUC06156	500mg/6ml	50
CEC0611Z	CUC0611Z	100mg/10ml	50
CEC0612Z	CUC0612Z	200mg/10ml	50
CEC0615Z	CUC0615Z	500mg/10ml	50
CEC061M6	CUC061M6	1g/6ml	30
CEC0612M15	CUC0612M15	2g/15ml	20
CEC0615M25	CUC0615M25	5g/25ml	20
CEC06110M75	CUC06110M75	10g/75ml	10

CLEAN UP[®] Hydrophilic Solid Phase Extraction Columns

Cyanopropyl

<u>part number</u>	<u>part number</u>	<u>amount sorbent/</u>	<u>units</u>	
<u>endcapped</u>	<u>unendcapped</u>	<u>tube volume</u>	<u>per pack</u>	<u>Price</u>
CECNP1L1	CUCNP1L1	50mg/1ml	100	\$141.00
CECNP111	CUCNP111	100mg/1ml	100	\$147.00
CECNP123	CUCNP123	200mg/3ml	50	\$110.00
CECNP153	CUCNP153	500mg/3ml	50	\$126.00
CECNP156	CUCNP156	500mg/6ml	50	\$129.00
CECNP11Z	CUCNP11Z	100mg/10ml	50	\$99.00
CECNP12Z	CUCNP12Z	200mg/10ml	50	\$103.00
CECNP15Z	CUCNP15Z	500mg/10ml	50	\$110.00
CECNP1M6	CUCNP1M6	1g/6ml	30	\$117.00
CECNP12M15	CUCNP12M15	2g/15ml	20	\$121.00
CECNP15M25	CUCNP15M25	5g/25ml	20	\$201.00
CECNP110M75	CUCNP110M75	10g/75ml	10	\$135.00

Diol

<u>part number</u>	<u>part number</u>	<u>amount sorbent/</u>	<u>units</u>	
<u>endcapped</u>	<u>unendcapped</u>	<u>tube volume</u>	<u>per pack</u>	<u>Price</u>
CUDOL1L1	CUDOL1L1	50mg/1ml	100	\$141.00
CUDOL111	CUDOL111	100mg/1ml	100	\$147.00
CUDOL123	CUDOL123	200mg/3ml	50	\$110.00
CUDOL153	CUDOL153	500mg/3ml	50	\$126.00
CUDOL156	CUDOL156	500mg/6ml	50	\$129.00
CUDOL11Z	CUDOL11Z	100mg/10ml	50	\$99.00
CUDOL12Z	CUDOL12Z	200mg/10ml	50	\$103.00
CUDOL15Z	CUDOL15Z	500mg/10ml	50	\$110.00
CUDOL1M6	CUDOL1M6	1g/6ml	30	\$117.00
CUDOL12M15	CUDOL12M15	2g/15ml	20	\$121.00
CUDOL15M25	CUDOL15M25	5g/25ml	20	\$201.00
CUDOL110M75	CUDOL110M75	10g/75ml	10	\$135.00

CLEAN UP[®] Ion Exchange Solid Phase Extraction Columns

Aminopropyl

<u>part number</u>	<u>amount sorbent/</u>	<u>units</u>	
<u>unendcapped</u>	<u>tube volume</u>	<u>per pack</u>	<u>Price</u>
CUNAX1L1	50mg/1ml	100	\$151.00
CUNAX111	100mg/1ml	100	\$158.00
CUNAX123	200mg/3ml	50	\$120.00
CUNAX153	500mg/3ml	50	\$136.00
CUNAX156	500mg/6ml	50	\$139.00
CUNAX11Z	100mg/10ml	50	\$99.00
CUNAX12Z	200mg/10ml	50	\$105.00
CUNAX15Z	500mg/10ml	50	\$110.00
CUNAX1M6	1g/6ml	30	\$117.00
CUNAX12M15	2g/15ml	20	\$121.00
CUNAX15M25	5g/25ml	20	\$201.00
CUNAX110M75	10g/75ml	10	\$135.00

Quaternary Amine

CUQAX1L1	50mg/1ml	100	\$151.00
CUQAX111	100mg/1ml	100	\$158.00
CUQAX123	200mg/3ml	50	\$120.00
CUQAX153	500mg/3ml	50	\$136.00
CUQAX156	500mg/6ml	50	\$139.00
CUQAX11Z	100mg/10ml	50	\$99.00
CUQAX12Z	200mg/10ml	50	\$105.00
CUQAX15Z	500mg/10ml	50	\$110.00
CUQAX1M6	1g/6ml	30	\$117.00
CUQAX12M15	2g/15ml	20	\$121.00
CUQAX15M25	5g/25ml	20	\$201.00
CUQAX110M75	10g/75ml	10	\$135.00

Polyimine (PAX)

CUPAX1L1	50mg/1ml	100	\$151.00
CUPAX111	100mg/1ml	100	\$158.00
CUPAX123	200mg/3ml	50	\$120.00
CUPAX153	500mg/3ml	50	\$136.00
CUPAX156	500mg/6ml	50	\$139.00
CUPAX11Z	100mg/10ml	50	\$99.00
CUPAX12Z	200mg/10ml	50	\$105.00
CUPAX15Z	500mg/10ml	50	\$110.00
CUPAX1M6	1g/6ml	30	\$117.00
CUPAX12M15	2g/15ml	20	\$121.00
CUPAX15M25	5g/25ml	20	\$201.00
CUPAX110M75	10g/75ml	10	\$135.00

Anion Exchange Product Guide

Diethylamino

<u>part number</u>	<u>amount sorbent/</u>	<u>units</u>	
<u>unendcapped</u>	<u>tube volume</u>	<u>per pack</u>	<u>Price</u>
CUDAX1L1	50mg/1ml	100	\$151.00
CUDAX111	100mg/1ml	100	\$158.00
CUDAX123	200mg/3ml	50	\$120.00
CUDAX153	500mg/3ml	50	\$136.00
CUDAX156	500mg/6ml	50	\$139.00
CUDAX11Z	100mg/10ml	50	\$99.00
CUDAX12Z	200mg/10ml	50	\$105.00
CUDAX15Z	500mg/10ml	50	\$110.00
CUDAX1M6	1g/6ml	30	\$117.00
CUDAX12M15	2g/15ml	20	\$121.00
CUDAX15M25	5g/25ml	20	\$201.00
CUDAX110M75	10g/75ml	10	\$135.00

Anion Exchange Product Guide

Benzenesulfonic Acid

CUBCX1L1	50mg/1ml	100	\$151.00
CUBCX111	100mg/1ml	100	\$158.00
CUBCX123	200mg/3ml	50	\$120.00
CUBCX153	500mg/3ml	50	\$136.00
CUBCX156	500mg/6ml	50	\$139.00
CUBCX11Z	100mg/10ml	50	\$99.00
CUBCX12Z	200mg/10ml	50	\$105.00
CUBCX15Z	500mg/10ml	50	\$110.00
CUBCX1M3	1g/3ml	30	\$117.00
CUBCX1M6	1g/6ml	30	\$120.00
CUBCX12M6	2g/6ml	20	\$120.00
CUBCX12M15	2g/15ml	20	\$121.00
CUBCX15M25	5g/25ml	20	\$201.00
CUBCX110M75	10g/75ml	10	\$135.00

CLEAN UP[®] Ion Exchange Solid Phase Extraction Columns

Benzenesulfonic Acid - HIGH LOAD

part number	amount sorbent/ unencapped	units tube volume	per pack	Price
CUBCX1HL11	100mg/1ml	100	100	\$150.00
CUBCX1HL23	200mg/3ml	50	50	\$100.00
CUBCX1HL53	500mg/3ml	50	50	\$140.00
CUBCX1HL56	500mg/6ml	50	50	\$145.00
CUBCX1HL1Z	100mg/10ml	50	50	\$150.00
CUBCX1HL2Z	200mg/10ml	50	50	\$140.00
CUBCX1HL5Z	500mg/10ml	50	50	\$145.00
CUBCX1HLM6	1000g/6ml	30	30	\$150.00
CUBCX1HL2M15	2000g/15ml	20	20	\$135.00
CUBCX1HL2M6	2000g/6ml	20	20	\$130.00
CUBCX1HL5M25	5000g/25ml	20	20	\$200.00
CUBCX1HL10M25	10000g/25ml	20	20	\$205.00
CUBCX1HL5M75	5000g/75ml	20	20	\$155.00
CUBCX1HL10M75	10000g/75ml	20	20	

Quaternary Amine - Formate counter ion

part number	amount sorbent/ unencapped	units tube volume	per pack	Price
CFQAX1L1	50mg/1ml	100	100	\$107.50
CFQAX111	100mg/1ml	100	100	\$131.00
CFQAX123	200mg/3ml	50	50	\$86.00
CFQAX153	500mg/3ml	50	50	\$94.00
CFQAX156	600mg/60ml	50	50	\$99.00
CFQAX11Z	100mg/10ml	50	50	\$75.00
CFQAX12Z	200mg/10ml	50	50	\$94.00
CFQAX15Z	500g/10ml	50	50	\$104.50
CFQAX1M6	1000g/6ml	30	30	\$86.00
CFQAX12M15	2000g/15ml	20	20	\$94.00
CFQAX15M25	5000g/25ml	20	20	\$152.50
CFQAX110M75	10000g/75ml	10	10	\$131.00

Cation Exchange Product Guide

Carboxylic Acid

CUCCX1L1	50mg/1ml	100	100	\$151.00
CUCCX111	100mg/1ml	100	100	\$158.00
CUCCX123	200mg/3ml	50	50	\$120.00
CUCCX153	500mg/3ml	50	50	\$94.00
CUCCX156	500mg/6ml	50	50	\$99.00
CUCCX11Z	100mg/10ml	50	50	\$75.00
CUCCX12Z	200mg/10ml	50	50	\$94.00
CUCCX15Z	500mg/10ml	50	50	\$104.50
CUCCX1M6	1g/6ml	30	30	\$86.00
CUCCX12M15	2g/15ml	20	20	\$94.00
CUCCX15M25	5g/25ml	20	20	\$152.50
CUCCX110M75	10g/75ml	10	10	\$131.00

Quaternary Amine with Hydroxide counter ion

CHQAX111	100mg/1ml	100	100	\$107.50
CHQAX123	200mg/1ml	50	50	\$131.00
CHQAX153	500mg/3ml	50	50	\$86.00
CHQAX156	500mg/6ml	50	50	\$94.00
CHQAX11Z	100mg/10ml	50	50	\$99.00
CHQAX12Z	200mg/10ml	50	50	\$75.00
CHQAX15Z	500mg/10ml	50	50	\$94.00
CHQAX1M6	1g/6ml	30	30	\$104.50
CHQAX12M6	2g/6ml	20	20	\$86.00
CHQAX12M15	2g/15ml	20	20	\$94.00
CHQAX15M25	5g/25ml	20	20	\$152.50
CHQAX110M75	10g/75ml	10	10	\$131.00

Propylsulfonic Acid

CUPCX1L1	50mg/1ml	100	100	\$151.00
CUPCX111	100mg/1ml	100	100	\$158.00
CUPCX123	200mg/3ml	50	50	\$120.00
CUPCX153	500mg/3ml	50	50	\$94.00
CUPCX156	500mg/6ml	50	50	\$99.00
CUPCX11Z	100mg/10ml	50	50	\$75.00
CUPCX12Z	200mg/10ml	50	50	\$94.00
CUPCX15Z	500mg/10ml	50	50	\$104.50
CUPCX1M6	1g/6ml	30	30	\$86.00
CUPCX12M15	2g/15ml	20	20	\$94.00
CUPCX15M25	5g/25ml	20	20	\$152.50
CUPCX110M75	10g/75ml	10	10	\$131.00

Triacetic Acid (TAX)

CUTAX1L1	50mg/1ml	100	100	\$107.50
CUTAX111	100mg/1ml	100	100	\$131.00
CUTAX123	200mg/3ml	50	50	\$86.00
CUTAX153	500mg/3ml	50	50	\$94.00
CUTAX156	500mg/6ml	50	50	\$99.00
CUTAX11Z	100mg/10ml	50	50	\$75.00
CUTAX12Z	200mg/10ml	50	50	\$94.00
CUTAX15Z	500mg/10ml	50	50	\$104.50
CUTAX1M6	1g/6ml	30	30	\$86.00
CUTAX12M15	2g/15ml	20	20	\$94.00
CUTAX15M25	5g/25ml	20	20	\$152.50
CUTAX110M75	10g/75ml	10	10	\$131.00

Quaternary Amine with Acetate counter ion

CAQAX111	100mg/1ml	100	100	\$107.50
CAQAX123	200mg/1ml	50	50	\$131.00
CAQAX153	500mg/3ml	50	50	\$86.00
CAQAX156	500mg/6ml	50	50	\$94.00
CAQAX11Z	100mg/10ml	50	50	\$99.00
CAQAX12Z	200mg/10ml	50	50	\$75.00
CAQAX15Z	500mg/10ml	50	50	\$94.00
CAQAX1M6	1g/6ml	30	30	\$104.50
CAQAX12M6	2g/6ml	20	20	\$86.00
CAQAX12M15	2g/15ml	20	20	\$94.00
CAQAX15M25	5g/25ml	20	20	\$152.50
CAQAX110M75	10g/75ml	10	10	\$131.00

CLEAN UP® Copolymeric Solid Phase Extraction Columns

Hydrophobic plus Cyclohexyl

<u>part number</u> <u>endcapped</u>	<u>part number</u> <u>unendcapped</u>	<u>amount sorbent/</u> <u>tube volume</u>	<u>units</u> <u>per pack</u>	<u>Price</u>
CUCYH2L1		50mg/1ml	100	\$107.50
CUCYH211		100mg/1ml	100	\$131.00
CUCYH223		200mg/3ml	50	\$86.00
CUCYH253		500mg/3ml	50	\$94.00
CUCYH256		500mg/6ml	50	\$99.00
CUCYH21Z		100mg/10ml	50	\$75.00
CUCYH22Z		200mg/10ml	50	\$94.00
CUCYH25Z		500mg/10ml	50	\$104.50
CUCYH2M6		1g/6ml	30	\$86.00
CUCYH22M15		2g/15ml	20	\$94.00
CUCYH25M25		5g/25ml	20	\$152.50
CUCYH210M75		10g/75ml	10	\$131.00

Hydrophobic plus Benzenesulfonic Acid

<u>part number</u> <u>endcapped</u>	<u>part number</u> <u>unendcapped</u>	<u>amount sorbent/</u> <u>tube volume</u>	<u>units</u> <u>per pack</u>	<u>Price</u>
CUBCX2L1		50mg/1ml	100	\$150.00
CUBCX211		100mg/1ml	100	\$157.00
CUBCX223		200mg/3ml	50	\$119.00
CUBCX253		500mg/3ml	50	\$135.00
CUBCX256		500mg/6ml	50	\$138.00
CUBCX21Z		100mg/10ml	50	\$98.00
CUBCX22Z		200mg/10ml	50	\$104.00
CUBCX25Z		500mg/10ml	50	\$109.00
CUBCX2M6		1g/6ml	30	\$119.00
CUBCX22M15		2g/15ml	20	\$120.00
CUBCX25M25		5g/25ml	20	\$200.00
CUBCX210M75		10g/75ml	10	\$149.00

Hydrophobic plus Cyanopropyl

CUCNP2L1		50mg/1ml	100	\$150.00
CUCNP211		100mg/1ml	100	\$157.00
CUCNP223		200mg/3ml	50	\$119.00
CUCNP253		500mg/3ml	50	\$135.00
CUCNP256		500mg/6ml	50	\$138.00
CUCNP21Z		100mg/10ml	50	\$98.00
CUCNP22Z		200mg/10ml	50	\$104.00
CUCNP25Z		500mg/10ml	50	\$109.00
CUCNP2M6		1g/6ml	30	\$119.00
CUCNP22M15		2g/15ml	20	\$120.00
CUCNP25M25		5g/25ml	20	\$200.00
CUCNP210M75		10g/75ml	10	\$149.00

Hydrophobic plus Quaternary Amine

CUQAX2L1		50mg/1ml	100	\$150.00
CUQAX211		100mg/1ml	100	\$157.00
CUQAX223		200mg/3ml	50	\$119.00
CUQAX253		500mg/3ml	50	\$135.00
CUQAX256		500mg/6ml	50	\$138.00
CUQAX21Z		100mg/10ml	50	\$98.00
CUQAX22Z		200mg/10ml	50	\$104.00
CUQAX25Z		500mg/10ml	50	\$109.00
CUQAX2M6		1g/6ml	30	\$119.00
CUQAX22M15		2g/15ml	20	\$120.00
CUQAX25M25		5g/25ml	20	\$200.00
CUQAX210M75		10g/75ml	10	\$149.00

Hydrophobic plus Propylsulfonic Acid

CUPCX2L1		50mg/1ml	100	\$150.00
CUPCX211		100mg/1ml	100	\$157.00
CUPCX223		200mg/3ml	50	\$119.00
CUPCX253		500mg/3ml	50	\$135.00
CUPCX256		500mg/6ml	50	\$138.00
CUPCX21Z		100mg/10ml	50	\$98.00
CUPCX22Z		200mg/10ml	50	\$104.00
CUPCX25Z		500mg/10ml	50	\$109.00
CUPCX2M6		1g/6ml	30	\$119.00
CUPCX22M15		2g/15ml	20	\$120.00
CUPCX25M25		5g/25ml	20	\$200.00
CUPCX210M75		10g/75ml	10	\$149.00

Hydrophobic plus Aminopropyl

CUNAX2L1		50mg/1ml	100	\$150.00
CUNAX211		100mg/1ml	100	\$157.00
CUNAX223		200mg/3ml	50	\$119.00
CUNAX253		500mg/3ml	50	\$135.00
CUNAX256		500mg/6ml	50	\$138.00
CUNAX21Z		100mg/10ml	50	\$98.00
CUNAX22Z		200mg/10ml	50	\$104.00
CUNAX25Z		500mg/10ml	50	\$109.00
CUNAX2M6		1g/6ml	30	\$119.00
CUNAX22M15		2g/15ml	20	\$120.00
CUNAX25M25		5g/25ml	20	\$200.00
CUNAX210M75		10g/75ml	10	\$149.00

Hydrophobic plus Carboxylic Acid

CUCCX2L1		50mg/1ml	100	\$150.00
CUCCX211		100mg/1ml	100	\$157.00
CUCCX223		200mg/3ml	50	\$119.00
CUCCX253		500mg/3m	50	\$135.00
CUCCX256		500mg/6ml	50	\$138.00
CUCCX21Z		100mg/10ml	50	\$98.00
CUCCX22Z		200mg/10ml	50	\$104.00
CUCCX25Z		500mg/10ml	50	\$109.00
CUCCX2M6		1g/6ml	30	\$119.00
CUCCX22M15		2g/15ml	20	\$120.00
CUCCX25M25		5g/25ml	20	\$200.00
CUCCX210M75		10g/75ml	10	\$149.00

CLEAN UP[®] Covalent Solid Phase Extraction Columns

Aldehyde (ALD)

<u>part number</u> <u>unendcapped</u>	<u>amount sorbent/</u> <u>tube volume</u>	<u>units</u> <u>per pack</u>	<u>Price</u>
CUALD1L1	50mg/1ml	100	\$150.00
CUALD111	100mg/1ml	100	\$100.00
CUALD113	100mg/3ml	50	\$140.00
CUALD123	200mg/3ml	50	\$145.00
CUALD153	500mg/3ml	50	\$150.00
CUALD156	500mg/6ml	50	\$140.00
CUALD11Z	100mg/10ml	50	\$145.00
CUALD12Z	200mg/10ml	50	\$150.00
CUALD15Z	500mg/10ml	50	\$135.00
CUALD1M6	1g/6ml	30	\$130.00
CUALD12M15	2g/15ml	20	\$200.00
CUALD15M25	5g/25ml	20	\$205.00
CUALD110M75	10g/75ml	10	\$155.00

Isocyanate (ICN)

<u>part number</u> <u>unendcapped</u>	<u>amount sorbent/</u> <u>tube volume</u>	<u>units</u> <u>per pack</u>	<u>Price</u>
CUICN1L1	50mg/1ml	100	\$150.00
CUICN111	100mg/1ml	100	\$100.00
CUICN113	100mg/3ml	50	\$140.00
CUICN123	200mg/3ml	50	\$145.00
CUICN153	500mg/3ml	50	\$150.00
CUICN156	500mg/6ml	50	\$140.00
CUICN11Z	100mg/10ml	50	\$145.00
CUICN12Z	200mg/10ml	50	\$150.00
CUICN15Z	500mg/10ml	50	\$135.00
CUICN1M6	1g/6ml	30	\$130.00
CUICN12M15	2g/15ml	20	\$200.00
CUICN15M25	5g/25ml	20	\$205.00
CUICN110M75	10g/75ml	10	\$155.00

Thiopropyl (THX)

<u>part number</u> <u>unendcapped</u>	<u>amount sorbent/</u> <u>tube volume</u>	<u>units</u> <u>per pack</u>	<u>Price</u>
CUTHX1L1	50mg/1ml	100	\$107.50
CUTHX111	100mg/1ml	100	\$131.00
CUTHX123	200mg/3ml	50	\$86.00
CUTHX153	500mg/3ml	50	\$94.00
CUTHX156	500mg/6ml	50	\$99.00
CUTHX11Z	100mg/10ml	50	\$75.00
CUTHX12Z	200mg/10ml	50	\$94.00
CUTHX15Z	500mg/10ml	50	\$104.50
CUTHX1M6	1g/6ml	30	\$86.00
CUTHX12M15	2g/15ml	20	\$94.00
CUTHX15M25	5g/25ml	20	\$152.50
CUTHX110M75	10g/75ml	10	\$131.00

Epoxy (EPX)

<u>part number</u> <u>unendcapped</u>	<u>amount sorbent/</u> <u>tube volume</u>	<u>units</u> <u>per pack</u>
CUEPX1L1	50mg/1ml	100
CUEPX111	100mg/1ml	100
CUEPX113	100mg/3ml	50
CUEPX123	200mg/3ml	50
CUEPX153	500mg/3ml	50
CUEPX156	500mg/6ml	50
CUEPX11Z	100mg/10ml	50
CUEPX12Z	200mg/10ml	50
CUEPX15Z	500mg/10ml	50
CUEPX1M6	1g/6ml	30
CUEPX12M15	2g/15ml	20
CUEPX15M25	5g/25ml	20
CUEPX110M75	10g/75ml	10

ORDER PROCESSING INFORMATION

CUSTOMER SUPPORT

Our customer service staff will process all orders from 8:00 a.m. to 5:00 p.m. Eastern Standard Time, Monday through Friday. After 5:00 p.m. EST, voice mail will be available for messages and orders. We will gladly return your calls as soon as possible.

PLACING AN ORDER

United Chemical Technologies - Lewistown

PHONE ORDERS: (717) 247-0896 or (800) 541-0559

FAX ORDERS: (717) 247-0109

E-MAIL ORDERS: info@unitedchem.com

MAIL ORDERS: United Chemical Technologies, Inc.
MCIDC Plaza Bldg 10
6395 State Route 103 N.
Lewistown, PA 17044

TECHNICAL SUPPORT

United Chemical Technologies - Bristol

PHONE: (215) 781-9255 or (800) 385-3153

FAX : (215) 785-1226

WEB: www.unitedchem.com

ADDRESS:

United Chemical Technologies, Inc.
2731 Bartram Road, Bristol, PA 19007

ORDERING INFORMATION

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 19007. 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 phone number where we can contact you if 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 Regular UPS. 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 products list price or a minimum of \$25.00 (which ever is greater) will be charged on all returns.

WARRANTY

All products manufactured by United Chemical Technologies, Inc. are guaranteed against defects in materials and workmanship for a period of 90 days after shipment. United Chemical Technologies, Inc. will replace any items that prove to be defective during this time period.

The exclusive remedy requires the end user to first advise United Chemical Technologies, Inc. of the defective product by phone or in writing. Secondly, the defective product must be returned within 30 days after proper approval from our Quality Manager. All returns must indicate the purchase order number, the lot number and the shipping date. United Chemical Technologies, Inc. total liability is limited to the replacement cost of UCT products.

This warranty does not apply to damage resulting from misuse.