



## Clean-Up® Metal Scavenging

UCT's Clean-Up® Metal Scavenging Line is designed to retain excess organometallic catalysts commonly utilized in industrial synthesis enabling purification by simple filtration. Specific impurities are targeted including precious metals such as Pd, Pt, Ru and Rh to isolate the final desired product. Our Clean-Up® Metal Scavengers are highly selective in achieving the necessary purity levels for metal contamination, cost-effective, and available in cartridge format or bulk quantities.



## UCT's Clean-Up®- Metal Scavenging Thiopropyl



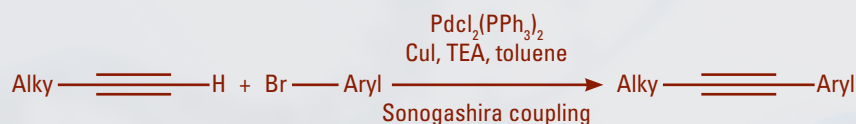
**Organic Loading:** 6.5%  
**Surface Area:** 500m<sup>2</sup>/g  
**Average Pore Size:** 60Å  
**Pore Volume:** 0.77cm<sup>3</sup>/g

### Metals Targeted

**Best Metals Scavenged:** Ag, Hg, Os, Pd & Ru

**Good Metals Scavenged:** Cu, Ir, Pb, Rh & Sn

## Case Study: Removal of Palladium from Sonogashira Coupling Reaction Using Various Metal Scavengers



Scavenger name	Pd in toluene solution (ppm)	Pd with respect to substrate (ppm)
No Scavenger (Control)	45.0	1800
UCT Clean-Up® Thiopropyl	< 3	< 120
UCT Clean-Up® Triamine	3.9	156
Competitor 1 MTcf	< 3	< 120
Competitor 1 SPM32-f	3.0	120
Competitor 1 SPM32	< 3	< 120
Competitor 1 SPM36-f	4.9	196
Competitor 1 SEM 26	4.0	160
Competitor 1 SPM36	6.7	268
Competitor 1 SEA	4.7	188
Competitor 1 STA 3	4.9	196
Competitor 2 MP	5.4	216
Competitor 2 TA	6.2	248
Competitor 2 AP	4.4	176
Competitor 3 Thiourea	< 3	< 120
Competitor 3 -Thiol	5.0	200
Competitor 3 DMT	4.0	160
Competitor 3 diamine	7.4	296
Competitor 3 triamine	5.0	200
Competitor 4 -TU	20.5	820
Competitor 4-BZA	16.2	648
Competitor 5 SA-FC Si-1	8.6	344

\*All samples were incubated overnight at ambient temperature before filtration and all of them received 50 wt% loading of scavenger as is typical for our first screen.

### 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, Inc. will replace any items that prove to be defective during this time period.

The exclusive remedy requires the end user to first advise UCT, 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. 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

Phone: 717.247.0896

800.541.0559

Fax: 717.247.0109

### MAIL

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 Bristol, PA 19007

### TECHNICAL SUPPORT

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PHARMA