

# 5% DMDCS in Toluene

## Product Specification

5% DMDCS (dimethyldichlorosilane) in toluene – Sylon-CT™ – is particularly useful for deactivating the surfaces of gas chromatography columns or other glassware.

### Features/Benefits

Chemically binds a thin, water-repellent film to glass, quartz, silica, and ceramics. Coated surfaces are neutral, hydrophobic, and non-oily, offer increased electrical resistivity, are not affected by solvents, are not readily hydrolyzed.

Can be wiped on or applied by immersion.

### Applications

Treat chromatography columns, glass injection port liners, reaction vessels, sample storage containers, pipettes, beakers, certain plastics, ceramics and fiber optics to minimize nonspecific binding and sample loss.

Reduce absorption of polar compounds, including proteins and trace metals, onto glass surfaces; reduce leaching of trace materials into solution.

Protect delicate samples against the possible reactive effects of -OH sites present on all types of glassware.

Provide complete drainage; eliminate meniscus.

Prevent electric current tracking, minimize electrical leakage on glass and ceramic surfaces.

### Typical Procedure

1. Coat the glass surface by rinsing with the reagent for 10 to 15 seconds, then discard the reagent.
2. Rinse the surface two times with toluene.
3. Rinse the surface three times (or until the rinsings are neutral) with methanol.
4. Dry the surface, using *clean* nitrogen. (Note: compressed air lines can contain oils, rust particles, etc.)

### Toxicity – Hazards – Storage – Stability

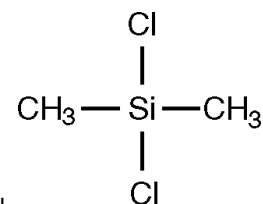
5% DMDCS in toluene is a flammable, moisture-sensitive liquid. It may irritate eyes, skin, and/or the respiratory system. Store in a brown bottle or amber ampul at room temperature, in a dry, well ventilated area away from ignition sources. Use only in a well ventilated area and keep away from ignition sources.

Properly stored, this reagent is stable indefinitely. Recommended storage conditions for the unopened product are stated on the label. Moisture will reduce the effectiveness of the reagent. To exclude moisture, Supelco packages this product under nitrogen. If you store an opened container or transfer the contents to another container for later reuse, add desiccant. **Before reuse, validate that your storage conditions adequately protected the reagent.**

Contact our Technical Service Department (phone 800-359-3041 or 814-359-3041, FAX 800-359-3044 or 814-359-5468) for expert answers to your questions.

### Properties

DMDCS  
Structure:



CAS Number: 75-78-5

Molecular Formula:  $(\text{CH}_3)_2\text{SiCl}_2$

Formula Weight: 129.06

bp: 70°C

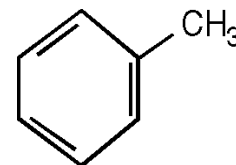
Flash Point: 47°F (8°C)

d: 1.064

$n_D$ : 1.4010 at 20°C

Appearance: clear, colorless liquid  
moisture sensitive

Toluene  
Structure:



CAS Number: 108-88-3

Molecular Formula:  $\text{C}_6\text{H}_5\text{CH}_3$

Formula Weight: 92

bp: 111°C

Flash Point: 40°F (4°C)

d: 0.867

$n_D$ : 1.4960 at 20°C

Appearance: clear, colorless liquid  
moisture sensitive

796-0266, 0267

### Additional Reading

K. Blau and J. Halket *Handbook of Derivatives for Chromatography* (2nd ed.) John Wiley & Sons, New York, 1993.

D.R. Knapp *Handbook of Analytical Derivatization Reactions* John Wiley & Sons, New York, 1979.

N.J. Carvajal and R.H. Zienius *Gas-Chromatographic Analysis of Trace Metals Isolated from Aqueous Solutions as Diethylthiocarbamates* J. Chromatogr., 355 (1): 107-116 (1986).

### Ordering Information

Description	Cat. No.
5% DMDCS in Toluene 400mL	33065-U
For information about neat DMDCS reagent, refer to Product Specification 496022.	
<b>Books</b>	
<i>Handbook of Derivatives for Chromatography</i> K. Blau and J. Halket	Z246220
<i>Handbook of Analytical Derivatization Reactions</i> D.R. Knapp	23561

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