



# XIAMETER(R) Material Safety Data Sheet

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Version: 2.2  
Revision Date: 2010/10/07

## XIAMETER(R) OFS-6040 SILANE

### 1. PRODUCT AND COMPANY IDENTIFICATION

Dow Corning Corporation  
South Saginaw Road  
Midland, Michigan 48686

**24 Hour Emergency Telephone: (989) 496-5900**

Customer Service: (989) 496-6000  
Product Disposal Information: (989) 496-6315  
CHEMTREC: (800) 424-9300

MSDS No.: 04099686

Revision Date: 2010/10/07

Generic Description: Alkoxysilane  
Physical Form: Liquid  
Color: Colorless to pale yellow  
Odor: Aromatic odor

NFPA Profile: Health 3 Flammability 1 Instability/Reactivity 0

Note: NFPA = National Fire Protection Association

### 2. HAZARDS IDENTIFICATION

#### POTENTIAL HEALTH EFFECTS

##### Acute Effects

Eye: May cause irreversible damage and burns to the eyes.  
Skin: May cause moderate irritation.  
Inhalation: Vapor may irritate nose and throat.  
Oral: Low ingestion hazard in normal use.

##### Prolonged/Repeated Exposure Effects

Skin: No known applicable information.  
Inhalation: No known applicable information.  
Oral: No known applicable information.

##### Other Health Effects

This product contains a chemical(s) that has the following effect(s):  
Mutagenicity

See Section 11 for specific details.

##### Signs and Symptoms of Overexposure

No known applicable information.

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### Medical Conditions Aggravated by Exposure

No known applicable information.

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product. Please refer to Section 11 for the detailed toxicology information.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
2530-83-8	85.0 - 100.0	Glycidoxypropyl trimethoxysilane

The above components are hazardous as defined in 29 CFR 1910.1200.

### 4. FIRST AID MEASURES

Eye:	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 30 minutes while holding the eyelid(s) open. If contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Neutral saline solution may be used as soon as available. Do not interrupt flushing. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately obtain medical attention.
Skin:	Remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Flush with lukewarm gently flowing water for 15 minutes. If irritation persists, repeat flushing. If irritation persists, obtain medical advice.
Inhalation:	Remove from the source of contamination or move to fresh air. Obtain medical attention.
Oral:	If irritation or discomfort occur, obtain medical advice.
Notes to Physician:	Treat same as caustic exposure.

### 5. FIRE FIGHTING MEASURES

Flash Point:	> 214 °F / > 101.1 °C (Closed Cup) 251.6 °F / 122 °C (Cleveland Open Cup)
Autoignition Temperature:	Not determined.
Flammability Limits in Air:	Not determined.
Extinguishing Media:	On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO <sub>2</sub> ), dry chemical or water spray. Water can be used to cool fire exposed containers.

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Fire Fighting Measures: Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

Unusual Fire Hazards: None.

**6. ACCIDENTAL RELEASE MEASURES**

Containment/Clean up: Determine whether to evacuate or isolate the area according to your local emergency plan. Observe all personal protection equipment recommendations described in Sections 5 and 8. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbant. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which federal, state and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.

Note: See Section 8 for Personal Protective Equipment for Spills.

**7. HANDLING AND STORAGE**

Use with adequate ventilation. Product evolves flammable methyl alcohol when exposed to water or humid air. Provide ventilation during use to control exposure within Section 8 guidelines or use air-supplied or self-contained breathing apparatus. Do not get in eyes. Avoid skin contact. Avoid breathing vapor. Keep container closed.

Keep container closed and store away from water or moisture.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Component Exposure Limits**

<u>CAS Number</u>	<u>Component Name</u>	<u>Exposure Limits</u>
2530-83-8	Glycidoxypropyl trimethoxysilane	Dow Corning guide: TWA 5 ppm, STEL 10 ppm. See methyl alcohol comments.

Methyl alcohol forms on contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL: TWA 200 ppm and ACGIH TLV-skin: TWA 200 ppm, STEL 250 ppm.

**Engineering Controls**

Local Ventilation: Recommended.

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General Ventilation: Recommended.

### **Personal Protective Equipment for Routine Handling**

Eyes: Use chemical worker's goggles.

Skin: Wash at mealtime and end of shift. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse. Chemical protective gloves are recommended.

Suitable Gloves: Avoid skin contact by implementing good industrial hygiene practices and procedures. Select and use gloves and/or protective clothing to further minimize the potential for skin contact. Consult with your glove and/or personnel protective equipment manufacturer for selection of appropriate compatible materials.

Inhalation: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. IH personnel can assist in judging the adequacy of existing engineering controls.

Suitable Respirator: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

### **Personal Protective Equipment for Spills**

Eyes: Use full face respirator.

Skin: Wash at mealtime and end of shift. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse. Chemical protective gloves are recommended.

Inhalation/Suitable Respirator: Respiratory protection recommended. Follow OSHA Respirator Regulations (29 CFR 1910.134) and use NIOSH/MHSA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Precautionary Measures: Do not get in eyes. Avoid skin contact. Avoid breathing vapor. Keep container closed. Use reasonable care.

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Comments: Product evolves flammable methyl alcohol when exposed to water or humid air. Provide ventilation during use to control exposure within Section 8 guidelines or use air-supplied or self-contained breathing apparatus.

When heated to temperatures above 150°C (300°F) in the presence of air, product can form formaldehyde vapors. Formaldehyde is a potential cancer hazard and a known skin and respiratory sensitizer. Vapors irritate eyes, nose, and throat. Safe handling conditions may be maintained by keeping vapor conditions within the OSHA permissible exposure limit for formaldehyde.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding aerosol inhalation toxicity, please refer to the guidance document regarding the use of silicone-based materials in aerosol applications that has been developed by the silicone industry ([www.SEHSC.com](http://www.SEHSC.com)) or contact the Dow Corning customer service group.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical Form: Liquid  
Color: Colorless to pale yellow  
Odor: Aromatic odor  
Specific Gravity @ 25°C: 1.07  
Viscosity: 3 cSt

Freezing/Melting Point: Not determined.  
Boiling Point: >= 250.00 °C  
Vapor Pressure @ 25°C: Not determined.  
Vapor Density: Not determined.  
Solubility in Water: Not determined.  
pH: Not determined.  
Volatile Content: Not determined.  
Flash Point: > 214 °F / > 101.1 °C (Closed Cup) 251.6 °F / 122 °C (Cleveland Open Cup)

Autoignition Temperature: Not determined.  
Flammability Limits in Air: Not determined.

Note: The above information is not intended for use in preparing product specifications.

**10. STABILITY AND REACTIVITY**

Chemical Stability: Stable.

Hazardous Polymerization: Hazardous polymerization will not occur.  
Conditions to Avoid: None.

Materials to Avoid: Oxidizing material can cause a reaction. Water, moisture, or humid air can cause hazardous vapors to form as described in Section 8.

Hazardous Decomposition Products

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Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde.

**11. TOXICOLOGICAL INFORMATION**

**Component Toxicology Information**

Glycidoxypropyltrimethoxysilane (GPTMS) was weakly mutagenic in the Ames test, mouse lymphoma assay, and an in vitro sister chromatid exchange test; however results of in vivo genotoxicity studies have shown mixed results. Repeated exposure of rats or rabbits to this material did not result in an increase in sister chromatid exchange, while single exposures of mice to a hydrolyzate of this material resulted in a significant increase in micronucleated polychromatic erythrocytes. The potential relevance to humans is not known; however, it is unlikely that this material presents a significant genotoxic hazard, in that it lacks any local tumorigenic response to the chronic recurrent application to mouse skin.

This material may liberate methanol upon exposure to moisture or humid air. Overexposure to methanol can result in blindness and nervous system effects.

**Special Hazard Information on Components**

**Mutagens**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>	
2530-83-8	85.0 - 100.0	Glycidoxypropyl trimethoxysilane	Genetically active in somatic cells in IN VIVO assay(s). Genetically active in IN VITRO and IN VIVO assay(s).

**12. ECOLOGICAL INFORMATION**

**Environmental Fate and Distribution**

Complete information is not yet available.

**Environmental Effects**

Complete information is not yet available.

**Fate and Effects in Waste Water Treatment Plants**

Complete information is not yet available.

Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	>1 and <=100	>100



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Acute Terrestrial Toxicity	<=100	>100 and <= 2000	>2000
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This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

### 13. DISPOSAL CONSIDERATIONS

#### RCRA Hazard Class (40 CFR 261)

When a decision is made to discard this material, as received, is it classified as a hazardous waste? No

State or local laws may impose additional regulatory requirements regarding disposal.

### 14. TRANSPORT INFORMATION

#### DOT Road Shipment Information (49 CFR 172.101)

Not subject to DOT.

#### Ocean Shipment (IMDG)

Not subject to IMDG code.

#### Air Shipment (IATA)

Not subject to IATA regulations.

### 15. REGULATORY INFORMATION

Contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Status: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

#### EPA SARA Title III Chemical Listings

##### **Section 302 Extremely Hazardous Substances (40 CFR 355):**

None.

##### **Section 304 CERCLA Hazardous Substances (40 CFR 302):**

None.

##### **Section 311/312 Hazard Class (40 CFR 370):**

Acute: Yes  
Chronic: Yes

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Fire: No  
Pressure: No  
Reactive: No

**Section 313 Toxic Chemicals (40 CFR 372):**

None present or none present in regulated quantities.

Note: Chemicals are listed under the 313 Toxic Chemicals section only if they meet or exceed a reporting threshold.

**Supplemental State Compliance Information**

**California**

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm.

None known.

**Massachusetts**

No ingredient regulated by MA Right-to-Know Law present.

**New Jersey**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
2530-83-8	85.0 - 100.0	Glycidoxypropyl trimethoxysilane

**Pennsylvania**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
2530-83-8	85.0 - 100.0	Glycidoxypropyl trimethoxysilane



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### 16. OTHER INFORMATION

Prepared by: Dow Corning Corporation

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

XIAMETER(R) is a trademark of Dow Corning Corporation

<http://www.xiameter.com>