

GELEST, INC.

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MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **(3-GLYCIDOXYPROPYL)TRIMETHOXYSILANE - SIG5840.0**

CHEMICAL NAME: (3-GLYCIDOXYPROPYL)TRIMETHOXYSILANE

SYNONYMS: 3-(2,3-EPOXYPROPOXYPROPYL)TRIMETHOXYSILANE

CHEMICAL FAMILY: ORGANOSILANE

FORMULA: C₉H₂₀O₅Si

HMIS CODES HEALTH: 3 FLAMMABILITY: 1 REACTIVITY: 1

INGREDIENTS

IDENTITY	CAS NO.	%	TLV
(3-GLYCIDOXYPROPYL)TRIMETHOXYSILANE	2530-83-8	>97	not established
METHANOL	67-56-1	<3	TWA: 200ppm (skin)

PHYSICAL DATA

Boiling Point: 290°C

Specific Gravity: 1.070

Vapor Density (air=1): 8.1

% volatiles: NA

Molecular Weight: 236.34

Appearance & Color: Clear to straw liquid with mild odor

Freezing Point: <-70°C

Vapor Pressure, 120°C: 2mm

Solubility in water: reacts

Evaporation rate: NA

Other: NA

FIRE & EXPLOSION DATA

Flash Point, COC: 135°C (276°F)

Autoignition Temp.: 231°

Flammability Limits: not determined

Extinguishing Media: Water spray, foam, carbon dioxide, dry chemical.

Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale vapors.

Unusual Fire and Explosion Hazards: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

-1-(SIG5840.0)

ENVIRONMENTAL INFORMATION

Spill response: Cover spill with absorbent material. Transfer to a suitable container for disposal.

Recommended Disposal: May be incinerated. Alternately, absorb onto clay or vermiculite and dispose of absorbent material as solid waste. Follow all chemical pollution control regulations.

HEALTH HAZARD DATA

Eye Contact: Will cause immediate or delayed severe eye irritation, experienced as discomfort or pain, tear production, inflammation of conjunctiva. Corneal injury may result.

Skin contact: May produce irritation or contact dermatitis which may be delayed several hours. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of vapors or particulates of may irritate the respiratory tract. Overexposure may produce coughing, headache and nausea.

Oral Toxicity- oral rat, LD50: 8,400mg/kg. Oral toxicity is associated with methanol, a hydrolysis product which causes nausea, vomiting, headache, visual effects including blindness. Onset of symptoms may be delayed up to 48 hours.

Inhalation Toxicity- rat, LC50: 5.3 mg/l/4H,

Chronic Toxicity: Glycidoxypropyltrimethoxysilane has been found to be weakly mutagenic in Ames in vitro screening. In vivo studies have shown that repeated exposure to this material, even at otherwise toxic doses, does not cause any mutagenic events. No tumorigenic response to the chronic recurrent application of the material to the skin of mice was observed.

SUGGESTED FIRST AID

EYES: In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention, preferably from an ophthalmologist.

SKIN: Flush with water, then wash with soap and water.

INHALATION: Move exposed individual to fresh air. Call a physician.

INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention.

NOTE TO PHYSICIAN: This product reacts with water in the acid contents of the stomach to form methanol. The combination of visual disturbances, metabolic acidosis and formic acid in urine is evidence of methanol poisoning. The therapeutic intravenous administration of ethanol (10 mls/hour) allows methanol to be preferentially oxidized and reduces production of methanol metabolites. Acidosis must be treated with intravenous administration of sodium bicarbonate and methanol elimination may be increased by hemodialysis, as indicated. Treatment should be based on blood methanol levels and acid-base balance.

-2-(SIG5840.0)

REACTIVITY DATA

Stability: Stable in sealed containers. Conditions to avoid: Combustible; avoid contact with heat, sparks or open flame.

Incompatibility (materials to avoid): Reacts with water and moisture in air liberating methanol. Can react exothermically with amines.

Hazardous decomposition products: Organic Acid Vapors.

SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV air-supplied or NIOSH approved organic vapor respirator.

Eye and Face Protection: Chemical worker's goggles. Do not wear contact lenses.

Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. An eyewash and emergency shower should be available. Launder clothing before reuse.

OTHER PRECAUTIONS

For research and industrial use only.

Storage and Handling: Store in sealed containers.

TRANSPORTATION

DOT SHIPPING NAME: CHEMICALS, NOI

DOT HAZARD CLASS: NOT REGULATED

DOT LABEL: NOT REGULATED

DOT ID No: NOT REGULATED

Prepared by safety and environmental affairs ISSUE DATE SIG5840.0: 1/13/12

SUPERSEDES: 4/2/04

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