

Safety Data Sheet SIM6487.4

Date of issue: 01/12/2015 Revision date: 03/08/2019 Version: 1.1

#### **SECTION 1: Identification**

Identification

Product name : METHACRYLOXYPROPYLTRIMETHOXYSILANE

: SIM6487.4 Product code Product form : Substance Physical state : Liquid Formula : C10H20O5Si

: 3-TRIMETHOXYSILYL)PROPYLMETHACRYLATE Synonyms

Chemical family : ORGANOMETHOXYSILANE

Recommended use and restrictions on use

: Chemical intermediate Recommended use

1.3. **Supplier** 

GELEST, INC.

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**USA** 

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**Emergency telephone number** 

: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International) Emergency number

## **SECTION 2: Hazard(s) identification**

#### Classification of the substance or mixture

## **GHS-US** classification

Skin corrosion/irritation Category 2 H315 Causes skin irritation Serious eye damage/eye irritation Category 2A H319 Causes serious eye irritation

Full text of H statements: see section 16

### GHS Label elements, including precautionary statements

## **GHS US** labeling

Hazard pictograms (GHS US)



Signal word (GHS US) : Warning

Hazard statements (GHS US) H315 - Causes skin irritation H319 - Causes serious eye irritation

P264 - Wash hands thoroughly after handling. Precautionary statements (GHS US)

P280 - Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 - If on skin: Wash with plenty of water

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing

P321 - Specific treatment (see supplemental first aid instruction on this label)

P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P362 - Take off contaminated clothing and wash before reuse.

### Hazards not otherwise classified (HNOC)

Other hazards not contributing to the : GHS UN classification. Acute toxicity (oral) Category 5.

classification

### **Unknown acute toxicity (GHS US)**

Not applicable

# **SECTION 3: Composition/Information on ingredients**

#### Substances

Substance type : Mono-constituent

: METHACRYLOXYPROPYLTRIMETHOXYSILANE Name

CAS-No. 2530-85-0

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Name	Product identifier	%	GHS-US classification
Methacryloxypropyltrimethoxysilane	(CAS-No.) 2530-85-0	> 95	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Inhibitors (hindered phenol and/or hydroquinone derivatives)		< 0.05	Not classified
Methanol	(CAS-No.) 67-56-1		Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:vapour), H331 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 1, H370 STOT SE 3, H336

Full text of hazard classes and H-statements : see section 16

#### 3.2. Mixtures

Not applicable

## **SECTION 4: First-aid measures**

## 4.1. Description of first aid measures

First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not

available show packaging or label.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel

unwell, seek medical advice.

First-aid measures after skin contact : Wash with plenty of soap and water. Get medical advice/attention.

First-aid measures after eye contact : Immediately call a poison center or doctor/physician. Remove contact lenses, if present and

easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Get medical advice/attention.

#### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause irritation to the respiratory tract. Overexposure may cause: Cough. Headache.

Nausea.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

Chronic symptoms : On contact with water this compound liberates methanol which is known to have a chronic

effect on the central nervous system.

May be harmful if swallowed.

#### 4.3. Immediate medical attention and special treatment, if necessary

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.

# **SECTION 5: Fire-fighting measures**

Symptoms/effects after ingestion

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Foam. Carbon dioxide. Dry chemical.

### 5.2. Specific hazards arising from the chemical

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

temperatures or open flame.

#### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray to cool exposed surfaces. Exercise caution when fighting any chemical fire.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Avoid all eye and skin contact and do not breathe vapor and mist.

### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

## 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

## 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or

shovel spills into appropriate container for disposal.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Precautions for safe handling : Provide good ventilation in process area to prevent accumulation of vapors.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work. Wash contaminated clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Store cold.

Incompatible materials : Moisture. Water.

Storage area : Store in a well-ventilated place. Store away from heat.

## SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Methanol (67-56-1)		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	250 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	200 ppm
IDLH	US IDLH (ppm)	6000 ppm
NIOSH	NIOSH REL (TWA) (mg/m³)	260 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	200 ppm
NIOSH	NIOSH REL (STEL) (mg/m³)	325 mg/m³
NIOSH	NIOSH REL (STEL) (ppm)	250 ppm

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Provide local exhaust or general room ventilation.

## 8.3. Individual protection measures/Personal protective equipment

### Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

#### Hand protection:

Neoprene or nitrile rubber gloves

#### Eye protection:

Chemical goggles. Contact lenses should not be worn

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

NIOSH-certified organic vapor (black cartridge) respirator.

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Clear liquid.
Molecular mass : 248.35 g/mol
Color : Straw.
Odor : Mild.

Odor threshold : No data available

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Refractive index : 1.431

: No data available Hq

Relative evaporation rate (butyl acetate=1) : < 1 Melting point : -48 °C

Freezing point : No data available : 78 - 81 °C @ 1 mm Hg Boiling point

Flash point : 108 °C

Auto-ignition temperature : No data available Decomposition temperature : No data available Flammability (solid, gas) : No data available Vapor pressure : < 0.5 mm Hg @ 25°C

Relative vapor density at 20 °C · > 1 Relative density : 1.045 % Volatiles : < 5 %

Solubility : Insoluble in water. Reacts with water.

Log Pow : No data available : No data available Log Kow

Viscosity, kinematic : 2 cSt

Viscosity, dynamic : No data available Explosive properties : No data available Oxidizing properties : No data available Explosion limits : 0.9 - 5.4 vol %

#### Other information

No additional information available

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No additional information available

#### **Chemical stability**

Stable in sealed containers stored in the dark at 0-5°C. Polymerization can occur when stored at elevated temperature.

## Possibility of hazardous reactions

Reacts with water and moisture in air, liberating methanol.

### **Conditions to avoid**

Heat. Sparks. Open flame.

#### 10.5. Incompatible materials

Water. Moisture.

#### **Hazardous decomposition products** 10.6.

Methanol. Organic acid vapors.

## SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Methanol (67-56-1)		
LC50 inhalation rat (ppm) 22500 ppm (Exposure time: 8 h)		
ATE US (oral)	100 mg/kg body weight	
ATE US (dermal)	300 mg/kg body weight	
ATE US (vapors)	3 mg/l/4h	

#### Methacryloxypropyltrimethoxysilane (2530-85-0) LD50 oral rat 3000 mg/kg

Skin corrosion/irritation : Causes skin irritation.

Skin Irritation - rabbit: 500 mg/24H: mild

: Causes serious eye irritation.

Serious eye damage/irritation

Eye Irritation - rabbit: 500 mg/24H: mild

Primary irritation index: 1.19

Respiratory or skin sensitization : Not classified Germ cell mutagenicity : Not classified

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Carcinogenicity : Not classified

Reproductive toxicity : Not classified Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity - repeated

exposure

: Not classified

Aspiration hazard : Not classified

Symptoms/effects after inhalation : May cause irritation to the respiratory tract. Overexposure may cause: Cough. Headache.

Nausea.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : May be harmful if swallowed.

Chronic symptoms : On contact with water this compound liberates methanol which is known to have a chronic

effect on the central nervous system.

## **SECTION 12: Ecological information**

## 12.1. Toxicity

Methanol (67-56-1)		
LC50 fish 1	28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])	
LC50 fish 2 > 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])		
E030 HSH Z	> 100 mg/r (Exposure time, 50 m. Openes, 1 internates promotes (static))	

## Methacryloxypropyltrimethoxysilane (2530-85-0)

EC50 Daphnia 1 > 876 mg/l 48h

#### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

Methanol (67-56-1)	
BCF fish 1	< 10
Log Pow	-0.77

### 12.4. Mobility in soil

No additional information available

## 12.5. Other adverse effects

Other adverse effects : This substance may be hazardous to the environment.

Effect on the ozone layer : No additional information available

# SECTION 13: Disposal considerations

## 13.1. Disposal methods

Product/Packaging disposal recommendations : May be incinerated. Dispose of contents/container to licensed waste disposal facility.

Ecology - waste materials : Avoid release to the environment.

## **SECTION 14: Transport information**

#### 14.1. UN number

Not regulated for transport.

## 14.2. UN proper shipping name

Not applicable

## 14.3. Additional information

Other information : No supplementary information available.

## Transport by sea

No additional information available

## Air transport

No additional information available

### **SECTION 15: Regulatory information**

## 15.1. US Federal regulations

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Methanol (67-56-1)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313		
SARA Section 313 - Emission Reporting	1 %	

#### Methacryloxypropyltrimethoxysilane (2530-85-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

#### **CANADA**

Methanol (67-56-1)		
Listed on the Canadian DSL (Domestic Substances List)		
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects	

#### Methacryloxypropyltrimethoxysilane (2530-85-0)

Listed on the Canadian DSL (Domestic Substances List)

#### **EU-Regulations**

### Methanol (67-56-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Methacryloxypropyltrimethoxysilane (2530-85-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### **National regulations**

#### Methanol (67-56-1)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Japanese Poisonous and Deleterious Substances Control Law

Listed on the Canadian IDL (Ingredient Disclosure List)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on CICR (Turkish Inventory and Control of Chemicals)

## Methacryloxypropyltrimethoxysilane (2530-85-0)

Listed on the AICS (Australian Inventory of Chemical Substances)

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Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on CICR (Turkish Inventory and Control of Chemicals)

### 15.3. US State regulations



This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Methanol (67-56-1)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
No	Yes	No	No		

## Methanol (67-56-1)

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

U.S. - Pennsylvania - RTK (Right to Know) List

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## **SECTION 16: Other information**

#### Full text of H-phrases::

H225	Highly flammable liquid and vapor
H301	Toxic if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H336	May cause drowsiness or dizziness
H370	Causes damage to organs

Abbreviations and acronyms

: Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemcial Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

## **Hazard Rating**

Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability

: 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)

Physical

: 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Prepared by safety and environmental affairs.

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SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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