

## Material Safety Data Sheet

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Version 1.4  
Regulation (EC) No 1907/2006

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1 - Product and Company Information

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Product Name 3-(TRIMETHOXSILYL)PROPYL METHACRYLATE,  
98%  
Product Number 440159  
Company Sigma-Aldrich Pte Ltd  
#02-14 The Capricorn, Sci. Park II  
Singapore 117528  
Singapore  
Technical Phone # (65) 6779 1200  
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2 - Hazards Identification

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SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Irritating to eyes, respiratory system and skin.

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3 - Composition/Information on Ingredients

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Product Name	CAS #	EC no	Annex I Index Number
3-(TRIMETHOXSILYL)PROPYL METHACRYLATE	2530-85-0	219-785-8	607-134-00-4

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Formula C10H20O5Si  
Molecular Weight 248.35 AMU  
Synonyms Dynasylan MEMO \* KBM 503 \* KH 570 \* M 8550 \*  
Methacrylic acid, 3-(trimethoxysilyl)propyl  
ester \* gamma-Methacryloxypropyltrimethoxysilane  
\* Mops-M \* NUCA 174 \* 2-Propenoic acid,  
2-methyl-, 3-(trimethoxysilyl)propyl ester \*  
Silane, (3-hydroxypropyl)trimethoxy-,  
methacrylat \* Silicone A-174 \*  
3-(Trimethoxysilyl)-1-propanol methacrylate \*  
Trimethoxysilyl-3-propylester kyseliny  
methakrylove (Czech) \* Union carbide A-174

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4 - First Aid Measures

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## AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give  
artificial respiration. If breathing is difficult, give oxygen.

## AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious  
amounts of water.

## AFTER EYE CONTACT

In case of contact, immediately flush eyes with copious amounts  
of water for at least 15 minutes.

#### AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

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#### 5 - Fire Fighting Measures

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##### CONDITIONS OF FLAMMABILITY

Under fire conditions, material may decompose to form flammable and/or explosive mixtures in air.

##### EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

##### SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

##### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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#### 6 - Accidental Release Measures

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##### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

##### METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

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#### 7 - Handling and Storage

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##### HANDLING

Directions for Safe Handling: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

##### STORAGE

Conditions of Storage: Keep tightly closed. Store in a cool dry place. Handle and store under nitrogen.

SPECIAL REQUIREMENTS: Moisture sensitive. Handle and store under inert gas. Heat sensitive.

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#### 8 - Exposure Controls / Personal Protection

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##### ENGINEERING CONTROLS

Mechanical exhaust required. Safety shower and eye bath.

##### GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

##### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand Protection: Compatible chemical-resistant gloves.  
Eye Protection: Chemical safety goggles.

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## 9 - Physical and Chemical Properties

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Appearance	Physical State: Liquid Color: Colorless	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	190 °C	760 mmHg
MP/MP Range	- 48.0 °C	760 mmHg
Flash Point	100 °C	Method: closed cup
Flammability	N/A	
Autoignition Temp	265 °C	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	Lower: 0.9 % Upper: 5.4 %	
Vapor Pressure	10 mmHg	130 °C
SG/Density	1.045 g/cm <sup>3</sup>	
Partition Coefficient	N/A	
Viscosity	0.003 Pas	25 °C
Vapor Density	8.6 g/l	
Saturated Vapor Conc.	N/A	
Evaporation Rate	< 1	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	Solubility in Water: Soluble. Other Solvents: SLOWLY REACTS W/WATER	

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## 10 - Stability and Reactivity

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### STABILITY

Stable: Stable.

Conditions of Instability: May decompose on exposure to moist air or water.

Conditions to Avoid: Heat.

Materials to Avoid: Strong oxidizing agents, Strong acids, Strong bases.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Silicon oxide.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: May occur

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## 11 - Toxicological Information

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RTECS NUMBER: UC0230000

### ACUTE TOXICITY

LD50

Oral

Rat  
22600 UL/KG

#### IRRITATION DATA

Skin  
Rabbit  
500 mg  
24H  
Remarks: Mild irritation effect

Eyes  
Rabbit  
500 mg  
24H  
Remarks: Mild irritation effect

#### SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Contact with moisture liberates methanol. Ingestion of methanol may cause blindness, nausea, headache, vomiting, gastrointestinal upset, dizziness, irregular breathing, weakness, confusion, drowsiness, unconsciousness, and death.

#### ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.  
Skin Absorption: May be harmful if absorbed through the skin.  
Eye Contact: Causes eye irritation.  
Inhalation: Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.  
Ingestion: May be harmful if swallowed.

#### TARGET ORGAN INFORMATION

Kidneys. Eyes.

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#### 12 - Ecological Information

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##### ELIMINATION

Elimination: 74 %

##### ECOTOXICOLOGICAL EFFECTS

Test Type: IC50 Algae  
Species: Scenedesmus subspicatus  
Time: 72 h  
Value: > 536 mg/l

Test Type: EC50 Daphnia  
Species: Daphnia magna  
Time: 48 h  
Value: > 876 mg/l

Test Type: LC50 Fish  
Species: Brachydanio rerio  
Time: 96 h  
Value: > 1,042 mg/l

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#### 13 - Disposal Considerations

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##### SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose

of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

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#### 14 - Transport Information

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##### RID/ADR

Non-hazardous for road transport.

##### IMDG

Non-hazardous for sea transport.

##### IATA

Non-hazardous for air transport.

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#### 15 - Regulatory Information

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##### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 607-134-00-4

INDICATION OF DANGER: Xi

Irritant.

R-PHRASES: 36/37/38

Irritating to eyes, respiratory system and skin.

S-PHRASES: 26-28

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of soap-suds.

##### COUNTRY SPECIFIC INFORMATION

##### Germany

WGK: 1

ID-Number: 4427

Classification according to appendix 3.

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#### 16 - Other Information

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##### WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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