1. PRODUCT AND COMPANY IDENTIFICATION

   Product name               : 3-(Trimethoxysilyl)propyl methacrylate
   Product Number             : 440159
   Brand                      : Aldrich
   Supplier                   : Sigma-Aldrich
                              3050 Spruce Street
                              SAINT LOUIS MO  63103
                              USA
   Telephone                  : +1 800-325-5832
   Fax                        : +1 800-325-5052
   Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555
   Preparation Information    : Sigma-Aldrich Corporation
                              Product Safety - Americas Region
                              1-800-521-8956

2. HAZARDS IDENTIFICATION

   Emergency Overview

   OSHA Hazards
   Combustible Liquid, Target Organ Effect

   Target Organs
   Eyes, Kidney

   GHS Classification
   Flammable liquids (Category 4)
   Acute toxicity, Oral (Category 5)
   Acute toxicity, Dermal (Category 5)

   GHS Label elements, including precautionary statements
   Pictogram                  : none
   Signal word               : Warning
   Hazard statement(s)
                              H227  Combustible liquid
                              H303 + H313  May be harmful if swallowed or in contact with skin.
   Precautionary statement(s) : none

   HMIS Classification
   Health hazard: 1
   Chronic Health Hazard: *
   Flammability: 2
   Physical hazards: 0

   NFPA Rating
   Health hazard: 0
   Fire: 2
   Reactivity Hazard: 0
Potential Health Effects

**Inhalation**
May be harmful if inhaled. May cause respiratory tract irritation.

**Skin**
May be harmful if absorbed through skin. May cause skin irritation.

**Eyes**
May cause eye irritation.

**Ingestion**
May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Synonyms</th>
<th>3-(Methacryloyloxy)propyltrimethoxysilane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>C\textsubscript{10}H\textsubscript{20}O\textsubscript{5}Si</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>248.35 g/mol</td>
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</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>3-Trimethoxysilylpropyl methacrylate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS-No.</td>
<td>2530-85-0</td>
</tr>
<tr>
<td>EC-No.</td>
<td>219-785-8</td>
</tr>
<tr>
<td>Concentration</td>
<td>90 - 100 %</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**
Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**
Flush eyes with water as a precaution.

**If swallowed**
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

**Conditions of flammability**
Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

**Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for firefighters**
Wear self contained breathing apparatus for fire fighting if necessary.

**Hazardous combustion products**
Hazardous decomposition products formed under fire conditions. - Carbon oxides, silicon oxides

**Further information**
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Use personal protective equipment. Avoid breathing vapours, mist or gas. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.
7. HANDLING AND STORAGE

Precautions for safe handling
Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
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. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form liquid
Colour colourless

Safety data

pH no data available
Melting point/freezing point: < -20 °C (< -4 °F) at ca.1,013.0 hPa (759.8 mmHg) - OECD Test Guideline 102
Boiling point 190 °C (374 °F) - lit.
Flash point 92 °C (198 °F) - closed cup
Ignition temperature 265 °C (509 °F)
Auto-ignition temperature 275 °C (527 °F) at 1,013.5 - 1,030.7 hPa (760.2 - 773.1 mmHg)
Lower explosion limit 0.9 %(V)
Upper explosion limit 5.4 %(V)
Vapour pressure 13 hPa (10 mmHg) at 130 °C (266 °F)
0.023 hPa (0.017 mmHg) at 25 °C (77 °F) - OECD Test Guideline 104
Density 1.045 g/cm³ at 25 °C (77 °F) - lit.
Water solubility 0.08262 g/l at 20 °C (68 °F) - OECD Test Guideline 105 - slightly soluble, hydrolyses
Partition coefficient: log Pow: 2.1 at 20 °C (68 °F) - OECD Test Guideline 107
n-octanol/water
Relative vapour density 8.57 - (Air = 1.0)
Odour no data available
Odour Threshold no data available
Evapouration rate no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions
no data available
Conditions to avoid
Heat, flames and sparks.
Materials to avoid
Strong oxidizing agents, Strong acids, Strong bases
Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, silicon oxides
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity
Oral LD50
LD50 Oral - rat - male and female - > 2,000 mg/kg
Inhalation LC50
LC50 Inhalation - rat - male and female - 4 h - > 2.28 mg/l
Dermal LD50
LD50 Dermal - rat - male and female - > 2,000 mg/kg
Other information on acute toxicity
no data available
Skin corrosion/irritation
Skin - rabbit - No skin irritation - 4 h - OECD Test Guideline 404
Serious eye damage/eye irritation
Eyes - rabbit - No eye irritation - OECD Test Guideline 405
Respiratory or skin sensitisation
Maximisation Test - guinea pig - Does not cause skin sensitisation. - OECD Test Guideline 406
Germ cell mutagenicity
Genotoxicity in vitro - Ames test - S. typhimurium - with and without metabolic activation - negative
Genotoxicity in vitro - Hamster - ovary - with and without metabolic activation - negative
Genotoxicity in vivo - mouse - male and female - Intraperitoneal - negative
Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

RTECS: UC0230000

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish semi-static test LC50 - Danio rerio (zebra fish) - > 100 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h

Toxicity to algae static test EC50 - Desmodesmus subspicatus (green algae) - > 100 mg/l - 72 h

Toxicity to bacteria Respiration inhibition EC50 - Sludge Treatment - > 1,000 mg/l - 3 h
Method: OECD Test Guideline 209

Persistence and degradability

Biodegradability aerobic
Result: 69 % - Readily biodegradable.

Bioaccumulative potential

no data available

Mobility in soil
13. DISPOSAL CONSIDERATIONS

Product
This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
NA-Number: 1993  Class: CBL  Packing group: III
Proper shipping name: Combustible liquid, n.o.s. (3-Trimethoxysilylpropyl methacrylate)
Reportable Quantity (RQ):
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards
Combustible Liquid, Target Organ Effect

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Fire Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

- 3-Trimethoxysilylpropyl methacrylate
  CAS-No. 2530-85-0

New Jersey Right To Know Components

- 3-Trimethoxysilylpropyl methacrylate
  CAS-No. 2530-85-0

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information
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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 Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.