SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name: Trimethylolpropane triacrylate
Product Number: 246808
Brand: Aldrich
Index-No.: 607-111-00-9
CAS-No.: 15625-89-5

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company: Sigma-Aldrich Inc.
3050 SPRUCE ST
ST. LOUIS MO 63103
UNITED STATES

Telephone: +1 314 771-5765
Fax: +1 800 325-5052

1.4 Emergency telephone

Emergency Phone #: 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

- Skin irritation (Category 2), H315
- Eye irritation (Category 2A), H319
- Skin sensitization (Category 1), H317
- Carcinogenicity (Category 2), H351
- Short-term (acute) aquatic hazard (Category 1), H400
- Long-term (chronic) aquatic hazard (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements
The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3: Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Synonyms</th>
<th>TMPTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>C_{15}H_{20}O_{6}</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>296.32 g/mol</td>
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<tr>
<td>CAS-No.</td>
<td>15625-89-5</td>
</tr>
<tr>
<td>EC-No.</td>
<td>239-701-3</td>
</tr>
<tr>
<td>Index-No.</td>
<td>607-111-00-9</td>
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<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimethylolpropane triacrylate</td>
<td>Skin Irrit. 2; Eye Irrit. 2A;</td>
<td>&lt;= 100 %</td>
</tr>
</tbody>
</table>

Aldrich - 246808
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice
Show this material safety data sheet to the doctor in attendance.

If inhaled
After inhalation: fresh air. Call in physician.

In case of skin contact
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Consult a physician.

In case of eye contact
After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed
After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture
Carbon oxides
Combustible.
Vapors are heavier than air and may spread along floors.
Forms explosive mixtures with air on intense heating.
Development of hazardous combustion gases or vapours possible in the event of fire.
5.3 **Advice for firefighters**  
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 **Further information**  
Prevent fire extinguishing water from contaminating surface water or the ground water system.

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**SECTION 6: Accidental release measures**

6.1 **Personal precautions, protective equipment and emergency procedures**  
Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.  
For personal protection see section 8.

6.2 **Environmental precautions**  
Do not let product enter drains.

6.3 **Methods and materials for containment and cleaning up**  
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

6.4 **Reference to other sections**  
For disposal see section 13.

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**SECTION 7: Handling and storage**

7.1 **Precautions for safe handling**  
**Advice on safe handling**  
Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

**Hygiene measures**  
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.  
For precautions see section 2.2.

7.2 **Conditions for safe storage, including any incompatibilities**  
**Storage conditions**  
Tightly closed.

**Storage class**  
Storage class (TRGS 510): 10: Combustible liquids

7.3 **Specific end use(s)**  
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.
SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
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<tbody>
<tr>
<td>Trimethylolpropane triacrylate</td>
<td>15625-89-5</td>
<td>TWA</td>
<td>1 mg/m3</td>
<td>USA, Workplace Environmental Exposure Levels (WEEL)</td>
</tr>
</tbody>
</table>

Remarks: Skin

8.2 Exposure controls

Appropriate engineering controls
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal protective equipment

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection
required

Body Protection
protective clothing

Respiratory protection
Recommended Filter type: Filter type ABEK
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
required when vapours/aerosols are generated.
Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure
Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance
   Form: viscous liquid
   Color: colorless

b) Odor
   No data available

c) Odor Threshold
   No data available

d) pH
   No data available

e) Melting
   Melting point/freezing point: < -20 °C (< -4 °F) at ca.1,013 hPa
The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada

point/freezing point - OECD Test Guideline 102

f) Initial boiling point and boiling range  
   > 390 °C > 734 °F at ca.1,013 hPa - OECD Test Guideline 103

g) Flash point  
   194.5 °C (382.1 °F) at ca.1,013 hPa - closed cup - Regulation (EC) No. 440/2008, Annex, A.9

h) Evaporation rate  
   No data available

i) Flammability (solid, gas)  
   No data available

j) Upper/lower flammability or explosive limits  
   No data available

k) Vapor pressure  
   < 0.01 hPa at 20 °C (68 °F)

l) Vapor density  
   10.23 - (Air = 1.0)

m) Density  
   1.1 g/cm3 at 25 °C (77 °F) - lit.
   Relative density  
   No data available

n) Water solubility  
   0.5 g/l at 20 °C (68 °F) - Regulation (EC) No. 440/2008, Annex, A.6 - slightly soluble

o) Partition coefficient: n-octanol/water  
   log Pow: 1.88 - Bioaccumulation is not expected.

p) Autoignition temperature  
   385 °C (725 °F) at 1,013 hPa does not ignite

q) Decomposition temperature  
   No data available

r) Viscosity  
   No data available

s) Explosive properties  
   No data available

t) Oxidizing properties  
   none

9.2 Other safety information

Surface tension  
   49.9 mN/m at 22 °C (72 °F) - Regulation (EC) No. 440/2008, Annex, A.5

Relative vapor density  
   10.23 - (Air = 1.0)

SECTION 10: Stability and reactivity

10.1 Reactivity

Forms explosive mixtures with air on intense heating.
A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .
10.3 **Possibility of hazardous reactions**  
No data available

10.4 **Conditions to avoid**  
May polymerize on exposure to light.  
Strong heating.

10.5 **Incompatible materials**  
Strong oxidizing agents, Strong acids, Strong bases, Brass, Copper, Steel (all types and surface treatments), Iron and iron salts.

10.6 **Hazardous decomposition products**  
In the event of fire: see section 5

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**SECTION 11: Toxicological information**

11.1 **Information on toxicological effects**

**Acute toxicity**  
LD50 Oral - Rat - > 5,000 mg/kg  
Remarks: (RTECS)
Inhalation: No data available  
LD50 Dermal - Rabbit - 5,170 mg/kg  
Remarks: (ECHA)
No data available

**Skin corrosion/irritation**  
Skin - Rabbit  
Result: slight irritation - 24 h  
(OECD Test Guideline 404)  
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Serious eye damage/eye irritation**  
Eyes - Rabbit  
Result: Moderate eye irritation  
Remarks: (ECHA)  
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Respiratory or skin sensitization**  
Patch test: - Humans  
Result: May cause sensitization by skin contact.  
Remarks: (ECHA)  
Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Germ cell mutagenicity**  
In vivo tests did not show mutagenic effects  
Test Type: Chromosome aberration test in vitro  
Test system: lymphocyte  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: positive

Test Type: Micronucleus test  
Species: Mouse  
Cell type: Bone marrow
Method: OECD Test Guideline 474  
Result: negative

**Carcinogenicity**  
Suspected of causing cancer.

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Trimethylolpropane triacrylate)

NTP: No ingredient 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 on OSHA’s list of regulated carcinogens.

**Reproductive toxicity**  
No data available

**Specific target organ toxicity - single exposure**  
No data available

**Specific target organ toxicity - repeated exposure**  
No data available

**Aspiration hazard**  
No data available

### 11.2 Additional Information

Repeated dose toxicity - Rat - male and female - Oral - 28 d - NOAEL (No observed adverse effect level) - 300 mg/kg

RTECS: AT4810000  
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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**SECTION 12: Ecological information**

### 12.1 Toxicity

**Toxicity to fish**  
semi-static test LC50 - Danio rerio (zebra fish) - 0.87 mg/l - 96 h (OECD Test Guideline 203)

**Toxicity to daphnia and other aquatic invertebrates**  
static test EC50 - Daphnia magna (Water flea) - 19.9 mg/l - 48 h (Regulation (EC) No. 440/2008, Annex, C.2)

**Toxicity to algae**  
static test ErC50 - Desmodesmus subspicatus (green algae) - 4.86 mg/l - 96 h (Regulation (EC) No. 440/2008, Annex, C.3)

### 12.2 Persistence and degradability

**Biodegradability**  
aerobic - Exposure time 28 d  
Result: 82 - 90 % - Readily biodegradable. (OECD Test Guideline 301B)

### 12.3 Bioaccumulative potential

No data available
12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties
No data available

12.7 Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

SECTION 14: Transport information

DOT (US)
Not dangerous goods

IMDG
UN number: 3082 Class: 9 Packing group: III EMS-No: F-A, S-F
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Trimethylolpropane triacrylate)
Marine pollutant: yes
Marine pollutant: no

IATA
UN number: 3082 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Trimethylolpropane triacrylate)

Further information
Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9

SECTION 15: Regulatory information

SARA 302 Components
This material does not contain any components with a section 302 EHS TPQ.

SARA 313 Components
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**
Acute Health Hazard

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

**California Prop. 65 Components**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimethylolpropane triacrylate</td>
<td>15625-89-5</td>
<td>2021-12-31</td>
</tr>
</tbody>
</table>

**SECTION 16: Other information**

**Further information**
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.

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