

According to the UN GHS revision 8

Creation Date: May 21, 2026

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## 1. IDENTIFICATION

### 1.1 GHS Product identifier

Product name: Methyl stearate

Catalog Number: T202666

CAS Number: 112-61-8

### 1.2 Other means of identification

Other names: -

### 1.3 Recommended use of the chemical and restrictions on use

Identified uses: no data available

### 1.4 Supplier's details

Company: Targetmol Chemicals Inc.

Address: 34 Washington Street, Wellesley Hills, Massachusetts 02481 USA

Tel/Fax: (781) 999-4286

### 1.5 Emergency phone number

Emergency phone number: 781-999-4286

Service hours: Monday to Friday, 9am-5pm (Standard timezone: UTC/GMT -5 hours).

## 2. HAZARD IDENTIFICATION

### 2.1 Classification of the substance or mixture

Not classified.

### 2.2 GHS label elements, including precautionary statements

Pictogram(s): unknown

Signal word: No signal word

Hazard statement(s): none

Precautionary statement(s):

Prevention: none

Response: none

Storage: none

Disposal: none

### 2.3 Other hazards which do not result in classification

no data available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

| Chemical name   | Common names and synonyms | CAS number | EC number |
|-----------------|---------------------------|------------|-----------|
| Methyl stearate | -                         | 112-61-8   | 203-990-4 |

## 4. FIRST-AID MEASURES

### 4.1 Description of necessary first-aid measures

#### General advice

no data available

#### If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

#### Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

#### Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

#### Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

### 4.2 Most important symptoms/effects, acute and delayed

no data available

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

ACUTE/CHRONIC HAZARDS: When heated to decomposition this compound emits toxic fumes. (NTP, 1992)

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

To fight fire, use carbon dioxide, dry chemical.

### 5.2 Specific hazards arising from the chemical

This chemical is combustible. (NTP, 1992)

### 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

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

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### 6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

### 6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and

aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

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

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Occupational Exposure limit values

no data available

#### Biological limit values

no data available

### 8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

#### Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

#### Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

#### Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

#### Thermal hazards

no data available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|  |   |
|--|---|
| Physical state   | Solid   |
| Color  | no data available   |
| Odour  | no data available   |
| Melting point/freezing point                             | 30 °C. Atm. press.:Ca. 1 013 hPa.   |
| Boiling point or initial boiling point and boiling range | 337.85 °C. Atm. press.:Ca. 1 013 hPa.   |
| Flammability   | no data available   |
| Lower and upper explosion limit/flammability limit       | no data available   |
| Flash point  | 176 °C. Atm. press.:1 013 hPa.  |
| Auto-ignition temperature                                | 230 °C. Atm. press.:Ca. 1 013.  |
| Decomposition temperature                                | no data available   |
| pH   | no data available   |
| Kinematic viscosity                                      | kinematic viscosity (in mm <sup>2</sup> /s) = 4.4. Temperature:40°C.  |
| Solubility   | DMSO: 50 mg/mL (167.5 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

## A DRUG SCREENING EXPERT

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|  |   |
|--|---|
| <b>N-octanol-water partition coefficient</b> | log Pow = 7.38. Temperature:36 °C.                            |
| <b>Vapour pressure</b>                       | 0.008 Pa. Temperature:25 °C.                                  |
| <b>Density and/or relative density</b>       | 860 kg/m3. Temperature:20 °C.;824.7 kg/m3. Temperature:75 °C. |
| <b>Relative vapour density</b>               | no data available   |
| <b>Particle characteristics</b>              | no data available   |

### 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity

no data available

#### 10.2 Chemical stability

no data available

#### 10.3 Possibility of hazardous reactions

COMBUSTIBLE WHEN EXPOSED TO HEAT OR FLAME ...METHYL STEARATE is an ester. Esters react with acids to liberate heat along with alcohols and acids. Strong oxidizing acids may cause a vigorous reaction that is sufficiently exothermic to ignite the reaction products. Heat is also generated by the interaction of esters with caustic solutions. Flammable hydrogen is generated by mixing esters with alkali metals and hydrides.

#### 10.4 Conditions to avoid

no data available

#### 10.5 Incompatible materials

Can react with oxidizing materials.

#### 10.6 Hazardous decomposition products

When heated to decomposition it emits acrid smoke and irritating fumes.

### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

Oral: LD50 - rat (male/female) - > 2 000 mg/kg bw.  
Inhalation: LC50 - rat (male/female) - > 5 mg/L air (analytical).  
Dermal: no data available

#### Skin corrosion/irritation

no data available

#### Serious eye damage/irritation

no data available

#### Respiratory or skin sensitization

no data available

#### Germ cell mutagenicity

no data available

#### Carcinogenicity

A4; Not classifiable as a human carcinogen. Stearates; does not include stearates of toxic metals

#### Reproductive toxicity

no data available

#### STOT-single exposure

no data available

### STOT-repeated exposure

no data available

### Aspiration hazard

no data available

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to fish: LC50 - Danio rerio (previous name: Brachydanio rerio) - 550 mg/L - 96 h.

Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna - > 0.02 mg/L - 48 h.

Toxicity to algae: EC50 - Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) - > 100 mg/L - 72 h.

Toxicity to microorganisms: EC50 - activated sludge of a predominantly domestic sewage - > 1 000 mg/L - 3 h. Remarks:Respiration rate.

### 12.2 Persistence and degradability

AEROBIC: Methyl stearate was found to partially biodegrade within 24 hours when inoculated with a mixed activated sludge in a Warburg respirator(1). A close structural analog to methyl stearate, ethyl stearate, was listed as biodegradable in the Japanese MITI test(2).

### 12.3 Bioaccumulative potential

An estimated BCF of 29 was calculated for methyl stearate(SRC) using a log Kow of 8.35(1) and a regression-derived equation(2).

According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low.

### 12.4 Mobility in soil

Using a structure estimation method based on molecular connectivity indices(1), the Koc for methyl stearate can be estimated to be about 62,000(SRC). According to a classification scheme(2), this estimated Koc value suggests that methyl stearate is expected to be immobile in soil.

### 12.5 Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Disposal methods

#### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

## 14. TRANSPORT INFORMATION

### 14.1 UN Number

no data available

### 14.2 UN Proper Shipping Name

no data available

### 14.3 Transport hazard class(es)

no data available

### 14.4 Packing group, if applicable

no data available

### 14.5 Environmental hazards

no data available

**14.6 Special precautions for user**

no data available

**14.7 Transport in bulk according to IMO instruments**

no data available

**15. REGULATORY INFORMATION****15.1 Safety, health and environmental regulations specific for the product in question**

|  |             |
|--|-------------|
| European Inventory of Existing Commercial Chemical Substances (EINECS)   | Listed.     |
| EC Inventory   | Listed.     |
| United States Toxic Substances Control Act (TSCA) Inventory              | Listed.     |
| China Catalog of Hazardous chemicals 2015                                | Not Listed. |
| New Zealand Inventory of Chemicals (NZIoC)                               | Listed.     |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS)       | Listed.     |
| Vietnam National Chemical Inventory                                      | Listed.     |
| Chinese Chemical Inventory of Existing Chemical Substances (China IECSC) | Listed.     |
| Korea Existing Chemicals List (KECL)                                     | Listed.     |

**16. OTHER INFORMATION****Information on revision****Creation Date** May 21, 2026**Revision Date** May 21, 2026**Abbreviations and acronyms**

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

**References**

IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>  
 HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>  
 IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>  
 eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)  
 CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>  
 ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>  
 ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>  
 Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>  
 ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

**Other Information**

no data available

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