2-Propenal, 2-methyl- (cas 78-85-3) MSDS

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name: Methacrolein

Product Number: 133035
Brand: Anonymous
CAS-No.: 78-85-3

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

Identified uses: Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

- Flammable liquids (Category 2)
- Acute toxicity, Oral (Category 3)
- Acute toxicity, Dermal (Category 3)
- Skin corrosion (Category 1B)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Highly flammable. Toxic in contact with skin and if swallowed. Causes burns.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram

Signal word: Danger

Hazard statement(s)
- H225: Highly flammable liquid and vapour.
- H301: Toxic if swallowed.
- H311: Toxic in contact with skin.
- H314: Causes severe skin burns and eye damage.

Precautionary statement(s)
- P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310: Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard Statements: none


Hazard symbol(s)

R-phrase(s)
- R11: Highly flammable.
- R24/25: Toxic in contact with skin and if swallowed.
- R34: Causes burns.

S-phrase(s)
- S16: Keep away from sources of ignition - No smoking.
- S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
- S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
2.3 Other hazards
Lachrymator.

3. COMPOSITION/INFORMATION ON INGREDIENTS
3.1 Substances
Synonyms: Methacryaldehyde
Formula: C4H6OC4H6O
Molecular Weight: 70.09 g/mol
Component | Concentration
---|---
Methacrolein | 
CAS-No. | 78-85-3
EC-No. | 201-150-1

4. FIRST AID MEASURES
4.1 Description of first aid measures
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

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

In case of skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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

4.2 Most important symptoms and effects, both acute and delayed
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

4.3 Indication of immediate medical attention and special treatment needed
No data available

5. FIRE-FIGHTING MEASURES
5.1 Extinguishing media
Suitable extinguishing media
For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

5.2 Special hazards arising from the substance or mixture
Carbon oxides

5.3 Precautions for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES
6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

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

6.3 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).

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE
7.1 **Precautions for safe handling**
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

7.2 **Conditions for safe storage, including any incompatibilities**
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Recommended storage temperature: 2 - 8 °C
Light sensitive. Air sensitive.

7.3 **Specific end uses**
no data available

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **Control parameters**
Components with workplace control parameters

8.2 **Exposure controls**
Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

**Personal protective equipment**

**Eye/face protection**
Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin 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.
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body Protection**
Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**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).

9. **PHYSICAL AND CHEMICAL PROPERTIES**

9.1 **Information on basic physical and chemical properties**

a) Appearance Form: liquid
b) Odour no data available
c) Odour Threshold no data available
d) pH no data available
e) Melting/freezing point Melting point/range: -81 °C - lit.
f) Initial boiling point and boiling range 68 - 70 °C - lit.
g) Flash point no data available
h) Evaporation rate no data available
i) Flammability (solid, gas) no data available
j) Upper/lower flammability or explosive limits no data available
k) Vapour pressure
   368,763 hPa at 20 °C
   926,388 hPa at 55 °C
l) Vapour density
   2.42 - (Air = 1.0)
m) Relative density
   0.85 g/cm3 at 25 °C
n) Water solubility
   no data available
o) Partition coefficient: n-octanol/water
   no data available
p) Autoignition temperature
   no data available
q) Decomposition temperature
   no data available
r) Viscosity
   no data available
s) Explosive properties
   no data available
t) Oxidizing properties
   no data available

9.2 Other safety information
   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
   no data available
10.4 Conditions to avoid
   Heat, flames and sparks. Extremes of temperature and direct sunlight.
10.5 Incompatible materials
   Strong bases, Strong oxidizing agents, Strong reducing agents
10.6 Hazardous decomposition products
   Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

   Acute toxicity
   LD50 Oral - rat - 140 mg/kg
   LD50 Dermal - rabbit - 366 mg/kg

   Skin corrosion/irritation
   Skin - rabbit -

   Serious eye damage/eye irritation
   Eyes - rabbit -

   Respiratory or skin sensitization
   no data available

   Germ cell mutagenicity
   no data available

   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.

   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

Potential health effects
Inhalation
May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion
Toxic if swallowed. Causes burns.

Skin
Toxic if absorbed through skin. Causes skin burns.

Eyes
Causes eye burns.

Signs and Symptoms of Exposure
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

Additional Information
RTECS: OZ2625000

12. ECOLOGICAL INFORMATION
12.1 Toxicity
no data available
12.2 Persistence and degradability
no data available
12.3 Bioaccumulative potential
no data available
12.4 Mobility in soil
no data available
12.5 Results of PBT and vPvB assessment
no data available
12.6 Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS
13.1 Waste treatment methods
Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION
14.1 UN-Number
ADR/RID: 2396
IMDG: 2396
IATA: 2396

14.2 UN proper shipping name
ADR/RID: METHACRYLALDEHYDE, STABILIZED
IMDG: METHACRYLALDEHYDE, STABILIZED
IATA: Methacrylaldehyde, stabilized

14.3 Transport hazard class(es)
ADR/RID: 3 (6.1)
IMDG: 3 (6.1)
IATA: 3 (6.1)

14.4 Packaging group
ADR/RID: II
IMDG: II
IATA: II

14.5 Environmental hazards
ADR/RID: no
IMDG Marine pollutant: no
IATA: no

14.6 Special precautions for users
no data available

15. REGULATORY INFORMATION
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2 Chemical Safety Assessment
no data available

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 this document is based on the resent 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. guidechem 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.