1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Methyl methacrylate
Product Number: M5599
Brand: Aldrich
Company: Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63113
USA
Telephone: +1 800-325-5832
Fax: +1 800-325-9032
Emergency Phone #: (314) 776-8555

2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: C5H8O2
Molecular Weight: 100.12 g/mol
CAS-No.: 80-62-6
EC-No.: 201-297-1
Index-No.: 607-035-20-8
Concentration: -

3. HAZARDS IDENTIFICATION

Emergency Overview
OSHA Hazards
Flammable Liquid
Target Organ Effect
Skin sensitizer
Irritant
Target Organs
Liver, Kidney
HMIS Classification
Health Hazard: 2
Chronic Health Hazard: -
Flammability: 3
Physical hazards: 2
NFPA Rating
Health Hazard: 2
Fire: 3
Reactivity Hazard: 2
Potential Health Effects

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
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.

5. FIRE-FIGHTING MEASURES

Flammable properties
Flash point: 9 °C (48 °F) - closed cup
Ignition temperature: 435 °C (815 °F)
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.

Specific hazards
Flash back possible over considerable distance. Container explosion may occur under fire conditions.

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus for fire fighting if necessary.

Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. 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.

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

Methods for cleaning up
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

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.
Storage
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. Store in cool place.
Recommended storage temperature: 2 - 8 °C

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl neethasylate</td>
<td>80-62-6</td>
<td>TWA</td>
<td>50 ppm</td>
<td>2000-03-01</td>
<td>US. American Conference of Governmental and Industrial Hygienists Threshold Limit Values for Chemical Substances in the Work Environment; Annual Reports for the Year 2004; Committees on Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)</td>
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Remarks: Refers to Appendix A - Carcinogens. 2000 Adoption

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<th>Basis</th>
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</thead>
<tbody>
<tr>
<td>STEL</td>
<td>100 ppm</td>
<td>2000-03-01</td>
<td>US. American Conference of Governmental and Industrial Hygienists Threshold Limit Values for Chemical Substances in the Work Environment; Annual Reports for the Year 2004; Committees on Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)</td>
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</thead>
<tbody>
<tr>
<td>TWA</td>
<td>100 ppm</td>
<td>1989-03-01</td>
<td>US. Department of Labor - Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1000 Z-T-A</td>
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<tr>
<td>TWA</td>
<td>100 ppm</td>
<td>1993-06-30</td>
<td>US. Department of Labor - Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PEL) 29 CFR 1910.1000 Air Contaminants.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
- Form: liquid
- Colour: colourless

Safety data
- pH: no data available
- Melting point: -48 °C (-54 °F)
- Boiling point: 98 - 100 °C (208 - 212 °F)
- Flash point: 9 °C (48 °F) - closed cup
- Ignition temperature: 435 °C (815 °F)
- Lower explosion limit: 2.12 %/V
- Upper explosion limit: 12.5 %/V
- Vapour pressure: 51.3 hPa (38.5 mmHg) at 25 °C (77 °F)
- Density: 0.943 g/cm³
- Water solubility: 15 g/l
- Partition coefficient: log Pow: 1.38
- n-octanol/water Relative vapour density: 3.48
- density: - (Air = 1.0)

10. STABILITY AND REACTIVITY

Storage stability
Stable under recommended storage conditions.

Conditions to avoid
Heat, flames and sparks. Heat, may polymerize on exposure to light.

Materials to avoid
Oxidizing agents, Peroxides, Amines, Bases, acids, Reducing agents, Halogens
11. TOXICOLOGICAL INFORMATION

Acute toxicity
LD50 Oral - rat: 7,872 mg/kg
LC50 Inhalation - rat: 4 h - 78,000 mg/m3
LD50 Dermal - rabbit: > 5,000 mg/kg
Remarks: Prolonged skin contact may cause skin irritant and/or dermatitis.

Irritation and corrosion
no data available

Sensitisation
May cause allergic skin reaction.

Chronic exposure
This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.
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.

Signs and Symptoms of Exposure
Central nervous system depression, Drowsiness, Irritability, Dizziness, Ataxia, narcosis

Potential Health Effects
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Eyes: Causes eye irritation.
Ingestion: May be harmful if swallowed.
Target Organs: Liver, Kidney.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)
no data available

Ecotoxicity effects
Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 125.5 - 275.0 mg/l - 96 h
Toxicity to daphnia EC50 - Daphnia magna (Water flea) - 720 mg/l

invertibrates.
Toxicity to algae EC50 - Selenastrum capricornutum (green algae) - 170 mg/l - 96 h

Further information on ecology
no data available

13. DISPOSAL CONSIDERATIONS

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Dispose of according to all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN Number: 1247 Class: 3
Packing group: II
Proper shipping name: Methyl methacrylate monomer, stabilized

IMDG
UN Number: 1247 Class: 3
Packing group: II
EMS-No: F-E, S-D
Proper shipping name: METHYL METHACRYLATE, MONOMER, STABILIZED
Marine pollutant: No

IATA
UN Number: 1247 Class: 3
Packing group: II
Proper shipping name: Methyl methacrylate monomer, stabilized

15. REGULATORY INFORMATION

OSHA Hazards
Flammable Liquid, Target Organ, Irritant

TSCA Status
On TSCA Inventory

DSL Status
All components of this product are on the Canadian DSL list.

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
CAS No. 80-52-6
Revision Date 1987-01-01

SARA 311/312 Hazards
Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
CAS No. 80-52-6
Revision Date 1987-01-01

Pennsylvania Right To Know Components
CAS No. 80-52-6
Revision Date 1987-01-01

New Jersey Right To Know Components
CAS No. 80-52-6
Revision Date 1987-01-01
16. OTHER INFORMATION

Further Information
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