Product Identification

Product Name: 2-METHOXYETHANOL
Synonyms: Ethylene glycol monomethyl ether; Methyl Cellosolve ®; Methoxyhydroxyethane; Glycol ether EM
Chemical Formula: CH3OC2H4OH
Formula Weight: 76.09
Chemical Family: Glycol ether
Integra Product Numbers: M656.10

Hazard Overview

HMIS Rating: 3-2-2-H  NFPA Rating: 2-2-0
Warning Label: WARNING!
Combustible liquid. Keep away from heat sparks and open flame. Harmful if swallowed, inhaled or absorbed through the skin. Contact may cause irritation. Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Possible reproductive hazard. Use with due care.

Components

Component CAS # %
2-Methoxyethanol 00109-86-4 100

Physical Data

Boiling Point: 124 °C
Melting Point: -85.1 °C
Vapor Pressure: 6.2 mm Hg @20°C
Specific Gravity: 0.96 Water=1
Evaporation Rate: approx. 1 Butyl Acetate=1
Vapor Density: 2.62 Air = 1
Solubility: Miscible with water.
Appearance and Odor: Clear, colorless liquid. Pleasant odor.

Fire and Explosion Data

Flash Point: 39 °C Test Method:
Auto-ignition Temperature: 286 °C
Flammable Limits (% by volume in air): Upper: 14 Lower: 1.8
Fire Extinguishing Media: CO2, Dry chemical or alcohol foam. Water may be ineffective.

Special Firefighting Procedures:
Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.

Unusual Fire and Explosion Hazards:
Gives off flammable vapors which may form an explosive mixture with air.

Health Hazard Information

Effects of Overexposure
Skin Contact:
Health Hazard Information

Effects of Overexposure

Skin Contact:
Contact with skin may be irritating. Material may be absorbed through the skin in harmful amounts.

Eye Contact:
May irritate or burn the eyes.

Ingestion:
Harmful or fatal if swallowed. May cause fatigue, headache, nausea, vomiting, dizziness and weakness. Death has occurred in human exposure of 3g/kg. Kidney damage is possible from ingestion of large quantities.

Inhalation:
Harmful if inhaled. Produces headache, nausea, vomiting, dizziness, drowsiness, irritation of upper respiratory tract, narcosis and possibly unconsciousness. Severe exposures may be fatal.

Chronic Effects of Overexposure:
Prolonged or chronic exposure affects the bone marrow, blood, kidneys, liver and testes. Sever neurological disabilities have been reported from chronic industrial exposure.

Exposure Limits:

<table>
<thead>
<tr>
<th>Component</th>
<th>TWA ppm</th>
<th>STEL</th>
<th>Ceiling</th>
<th>ACGIH TLV</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>25</td>
<td>NE</td>
<td>NE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Methoxyethanol</td>
<td>5</td>
<td>NE</td>
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</table>

Toxicity Data:

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 (skin, rabbit)</th>
<th>1280 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LC50 (oral, rat)</td>
<td>2370 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 (oral, rat)</td>
<td>1500 ppm/7H</td>
</tr>
</tbody>
</table>

Medical Conditions Generally Aggravated by Exposure:
Liver or kidney disorders, lung disease, central nervous system disorders.

Target Organs:
Respiratory system, CNS, blood, kidneys. Reproductive organs, liver.

Reproductive Effects:
2-Methoxyethanol is a suspected reproductive hazard and a birth defect hazard.

Carcinogenicity:
None Identified

Emergency First Aid Procedures

Skin Contact:
Remove contaminated clothing. Flush skin with water for at least 15 minutes. Seek medical attention if irritation persists.

Eye Contact:
Flush with water for at least 15 minutes. Seek immediate medical attention.

Inhalation:
Emergency First Aid Procedures

Inhalation:
Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult administer oxygen. Seek medical attention.

Ingestion:
Give victim large amounts of water and induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention.

Additional First aid and Treatment Notes:
No information available

Reactivity Data

Stability: Stable
Hazardous Polymerization: Will Not Occur
Incompatibles:
Incompatible with strong acids and strong oxidizers. Alkalis.

Decomposition Products:
Oxides of carbon (CO, CO2)

Conditions to Avoid:
Heat, sparks and open flame. Exposure to air.

Spill and Disposal Procedures

Spill and Leak Procedures:
Remove all potential ignition sources! Wear full protective equipment including suitable respiratory protection. Contain spill and take up with inert material. Place into suitable container for disposal.

Disposal Procedures:
Dispose in accordance with all Local, State and Federal regulations.

Protective Equipment

Ventilation:
Use general or local exhaust ventilation to meet TLV and PEL requirements.

Respiratory Protection:
If ventilation controls do not limit airborne concentrations below PEL or TLV values, an approved respirator must be worn. Use a chemical cartridge respirator with an organic vapor cartridge.

Skin and Eye Protective Equipment:
Safety goggles, protective clothing and gloves. Maintain an eyewash station and safety shower nearby. Rubber or neoprene gloves are recommended.

Storage and Handling Precautions

Storage Area: FLAMMABLE LIQUID
Store in a cool, dry, well-ventilated flammable liquids storage area or cabinet. Protect containers from physical damage. Bond and ground containers when transferring liquid.
Transportation Information

- Regulated Material domestic ground transportation
  (reference: CFR Title 49, Transportation)
  - Proper Shipping Name: Ethylene glycol monomethyl ether
  - UN or NA Identification number: UN1188
  - Hazard Class and Label: 3 Flammable Liquid
  - Packing Group: III

- Regulated Material via Air Transportation
  (reference: ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air)
  - Proper Shipping Name: Ethylene glycol monomethyl ether
  - UN Identification Number: UN1188
  - Hazard Class and Label: 3 Flammable Liquid
  - Packing Group: III
  - Packing Instruction
  - Max net qty per package
    - Passenger Aircraft: 309/Y309, 60/10 L
    - Cargo Aircraft: 310, 220 L

Regulatory Information

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA Inventory</th>
<th>CERCLA</th>
<th>SARA EHS</th>
<th>SARA 313 Toxic Release</th>
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<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>☑️</td>
<td>RQ</td>
<td>TPQ</td>
<td>de minimus</td>
</tr>
</tbody>
</table>

- SARA Hazard Categories:
  - Acute: ☑️
  - Chronic: ☑️
  - Flammability: ☑️
  - Pressure: ☑️
  - Reactivity: ☑️

- Clean Air Act Categories:
  - SOCMI: ☑️
  - HAP: ☑️
  - Volatile HAP: ☑️
  - Organic HAP: ☑️
  - Ozone Depleting: ☑️

MSDS Revision History:
- 002 - Changed header phone number
- 003 - Format revisions; updated header phone number
- 004 - Updated Header Information

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