1. IDENTIFICATION

Product identifier

Product code: M1221
Product Name: 2-METHOXYETHANOL, REAGENT, ACS

Other means of identification

Synonyms:
- 2-Methoxy-aethanol (German)
- 2-Metossietanolo (Italian)
- Aethyleneglykol-monomethylether (German)
- Ether monomethylexyde de l'ethyline-glycol (French)
- Ethylene glycol methyl ether
- Ethylene glycol monomethyl ether
- Glycol ether EM monomethyl ether
- Glycolmethyl ether
- Methoxyhydroxyethane
- Methyl cellosolve
- Methyl cellosolve methyl glycol
- Methyl ethoxol
- Methyl glycol
- Methyl oxitol
- Methylcellosolv (Czech)
- Methyglykol (German)
- Metil cellosolve (Italian)
- Metoksyetylowy alkohol (Polish)
- Monomethyl ether of ethylene glycol

CAS #: 109-86-4
RTECS #: KL5775000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against: No information available

Supplier:
Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At: https://www.spectrumchemical.com
Emergency telephone number: Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION
This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Dermal</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Gases)</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Vapors)</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Dusts/Mists)</td>
<td>Category 4</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2B</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Category 1B</td>
</tr>
<tr>
<td>Flammable liquids</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Label elements

**Danger**

**Hazard statements**
May be harmful if swallowed  
Harmful if inhaled  
Harmful in contact with skin  
Causes eye irritation  
May damage fertility or the unborn child  
Flammable liquid and vapor

**Hazards not otherwise classified (HNOC)**
Not Applicable

**Other hazards**
May be harmful if swallowed

**Precautionary Statements - Prevention**
Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Wash face, hands and any exposed skin thoroughly after handling  
Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use explosion-proof electrical/ventilating/lighting/equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge  
Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**
In case of fire: Use CO2, dry chemical, or foam to extinguish.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
Call a POISON CENTER or doctor/physician if you feel unwell  
Wash contaminated clothing before reuse  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

**Product code:** M1221  
**Product name:** 2-METHOXYETHANOL, REAGENT, ACS
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>109-86-4</td>
<td>100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact: Wash off immediately with soap and plenty of water. Remove all contaminated clothes and shoes. Continue flushing with plenty of water for at least 15 minutes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician.

Most important symptoms and effects, both acute and delayed

Symptoms
- Causes eye irritation
- May cause digestive (gastrointestinal) tract irritation
- May affect behavior/central nervous system
- May cause nausea and vomiting
- May affect the kidneys
- May affect the liver
- May cause metabolic acidosis
- May affect the blood
- May affect respiration
- Dyspnea (Shortness of breath and difficulty breathing)
- Blurred vision

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders
First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES
**Extinguishing Media**

**Suitable Extinguishing Media:** Dry chemical. Carbon dioxide (CO2). Water spray, mist, or foam.

**Unsuitable Extinguishing Media:** Do not use a solid (straight) water stream as it may scatter and spread fire.

**Specific hazards arising from the chemical**

**Hazardous Combustion Products:** Carbon Monoxide, Carbon Dioxide.

**Specific hazards:** Flammable. May be ignited by heat, sparks or flames. Vapor may travel considerable distance to source of ignition and flash back. Vapors may form explosive mixtures with air. Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks). Container explosion may occur under fire conditions or when heated. Fire may produce irritating and/or toxic gases.

**Special Protective Actions for Firefighters**

**Specific Methods:** Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

---

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions:** Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas.

**Methods and material for containment and cleaning up**

**Methods for containment** Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up** Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

---

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Product code:** M1221

**Product name:** 2-METHOXYETHANOL, REAGENT, ACS
Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. All equipment used when handling the product must be grounded. Keep away from incompatible materials.

Safe Handling Advice
Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store in a segregated and approved area. Keep away from heat and sources of ignition. Store away from incompatible materials.

Incompatible Materials:
Strong oxidizing agents
Acids
Bases
Aluminum
Magnesium
Alkalis

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WEEL</th>
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<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>109-86-4</td>
<td>25 ppm TWA</td>
<td>0.1 ppm TWA</td>
<td>0.1 ppm TWA</td>
<td>None</td>
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<tr>
<td></td>
<td></td>
<td>80 mg/m³ TWA</td>
<td>0.3 mg/m³ TWA</td>
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Canada

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Canada - Alberta</th>
<th>Canada - British Columbia</th>
<th>Canada - Ontario</th>
<th>Canada - Quebec</th>
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<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>109-86-4</td>
<td>0.1 ppm TWA</td>
<td>0.1 ppm TWA</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.3 mg/m³ TWA</td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>

Australia and Mexico

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Australia</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>109-86-4</td>
<td>5 ppm TWA</td>
<td>25 ppm TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16 mg/m³ TWA</td>
<td>80 mg/m³ TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35 ppm STEL</td>
<td>35 ppm STEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>120 mg/m³ STEL</td>
<td>120 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering measures to reduce exposure:
Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.
Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles or Safety glasses with side-shields
Skin and body protection: Chemical resistant apron
Long sleeved clothing
Gloves
Respiratory protection: Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Odor: Ethereal. | Taste Bitter. | Formula: C3H8O2 |
| Molecular/Formula weight (g/mole): 76.10 | Flammability: No information available | Flashpoint (°C/°F): 38-39°C/100.4-102.2°F |
| Flash Point Tested according to: Closed cup | Autoignition Temperature (°C/°F): 285°C/545°F | Lower Explosion Limit (%): 2.5% (V) |
| Upper Explosion Limit (%): 20-24.5% (V) | Melting point/range(°C/°F): -85°C/-121°F | Decomposition temperature(°C/°F): 204-232°C/399-450°F |
| Boiling point/range(°C/°F): 124-125°C/255.2-257°F | Bulk density: No information available | Density (g/cm3): No information available |
| Specific gravity: 0.9647 | pH: No information available | Vapor pressure @ 20°C (kPa): 0.8 |
| Evaporation rate: 0.53 (Butyl Acetate=1.0) | Vapor density: 2.62 (Air=1) | VOC content (g/L): No information available |
| Odor threshold (ppm): 25-115 ppm | Partition coefficient (n-octanol/water): log Kow = -0.77 | Viscosity: No information available |

Miscibility: Miscible with Benzene
Miscible with alcohol
Miscible with Dimethylformamide
Miscible with Glycerol
Miscible with Ether
Miscible with Acetone
Miscible with water
Solubility: Soluble in Water
Soluble in Acetone

10. STABILITY AND REACTIVITY

Reactivity: No information available

Product code: M1221  Product name: 2-METHOXYETHANOL, REAGENT, ACS
Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur


Incompatible Materials: Strong oxidizing agents
Acids
Bases
Aluminum
Magnesium
Alkalis

Hazardous decomposition products: Carbon monoxide. Carbon dioxide. When heated to decomposition it emits acrid smoke and irritating fumes.

Other Information
Corrosivity: Non-corrosive in the presence of glass

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Skin. Inhalation. Ingestion.

Acute Toxicity

Component Information

2-Methoxyethanol

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>109-86-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50/oral/rat</td>
<td>2370 mg/kg Oral LD50 Rat</td>
</tr>
<tr>
<td>LD50/oral/mouse</td>
<td>2560 mg/kg</td>
</tr>
<tr>
<td>LD50/dermal/rabbit</td>
<td>1280 mg/kg Dermal LD50Rabbit</td>
</tr>
<tr>
<td>LD50/dermal/rat</td>
<td>No information available</td>
</tr>
<tr>
<td>LC50/inhalation/rat</td>
<td>1500 ppm Inhalation LC50 Rat 7 h</td>
</tr>
<tr>
<td>LC50/inhalation/mouse</td>
<td>1480 ppm/7H</td>
</tr>
<tr>
<td>Other LD50 or LC50</td>
<td>LD50 Oral, Rabbit 890 mg/kg; LD50 oral, guinea pig 950 mg/kg</td>
</tr>
</tbody>
</table>

Product Information

LD50/oral/rat = VALUE Acute Tox Oral = 2370 mg/kg

LD50/oral/mouse = Value - Acute Tox Oral = 2560 mg/kg

LD50/dermal/rabbit

Product code: M1221

Product name: 2-METHOXYETHANOL, REAGENT, ACS
VALUE-Acute Tox Dermal = 1280 mg/kg
LD50/dermal/rat
VALUE - Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = 1500 ppm/7 h
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = 1480 ppm/7 h
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Harmful in contact with skin. It may cause mild skin irritation. It can be absorbed through the skin.

Eye Contact: Causes eye irritation. Mild eye irritation. Causes conjunctival irritation. May cause corneal clouding.

Inhalation: Harmful by inhalation. May cause irritation of respiratory tract. Symptoms may include coughing and shortness of breath. May cause respiratory difficulty and unconsciousness. It may affect behavior/central nervous system (tremors). It may affect behavior/central nervous system (convulsions/seizures). May cause headache. May cause drowsiness/sleepiness.

Ingestion: Ingestion may cause nausea, vomiting. May cause loss of appetite. It may affect the kidneys and liver. May cause blurred or foggy vision. May affect respiration (hyperventilation). May cause metabolic acidosis. May affect behavior/central nervous system (ataxia). May affect behavior/central nervous system (lethargy, fatigue). May cause central nervous system depression including convulsions and unconsciousness. May affect behavior/central nervous system (tremor, insomnia, drowsiness). May affect behavior/central nervous system (dizziness, headache). May cause weakness.

Aspiration hazard: No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity: Chronic exposure may affect the liver, kidneys, and blood. Chronic exposure may affect behavior/central nervous system. Inhalation and Ingestion: Prolonged or repeated exposure by inhalation or ingestion may affect blood (bone marrow depression, hemolysis, reduced white and red blood cell counts, platelet counts, reduced hemoglobin and hematocrit and possibly anemia), behavior/central nervous system (see acute ingestion). It may also cause chronic fatigue, poor appetite, spleen damage, thymus damage, kidney damage, liver damage, encephalopathy.

Sensitization: May cause sensitization by skin contact.

Mutagenic Effects: May affect genetic material
Experiments with bacteria and/or yeast have shown mutagenic effects

Carcinogenic effects: Not considered carcinogenic.

Product code: M1221
Product name: 2-METHOXYETHANOL, REAGENT, ACS
2-Methoxyethanol (109-86-4) is a chemical compound with the following properties:

### Components

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>IARC</th>
<th>ACGIH - Carcinogens</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
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</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>109-86-4</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

**ACGIH** (American Conference of Governmental Industrial Hygienists)

**IARC** (International Agency for Research on Cancer)

**NTP** (National Toxicology Program)

**OSHA** (Occupational Safety and Health Administration of the US Department of Labor)

### Reproductive toxicity
- May damage fertility or the unborn child

### Reproductive Effects:
- May cause harm to the unborn child

### Developmental Effects:
- May cause adverse developmental effects

### Teratogenic Effects:
- Causes birth defects (teratogenic effects)

### Specific Target Organ Toxicity

**STOT - single exposure**
- liver, kidney, central nervous system.

**STOT - repeated exposure**
- Thymus, Blood, central nervous system.

**Target Organs:**
- Central nervous system, Liver, Kidneys.

### 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

**Ecotoxicity effects:** Aquatic environment.

#### 2-Methoxyethanol - 109-86-4

**Freshwater Fish Species Data:**
- 10000 mg/L LC50 Lepomis macrochirus 96 h static
- 1 9650 mg/L LC50 Lepomis macrochirus 96 h static 1
- 16000 mg/L LC50 Oncorhynchus mykiss 96 h static 1
- 500 mg/L LC50 Leuciscus idus 96 h static 1
- 10000 mg/L EC50 Daphnia magna 24 h

**Water Flea Data:**

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.

### 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

**Waste from residues / unused products:**
- Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**
- Empty containers should be taken for local recycling, recovery or waste disposal.

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>109-86-4</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

**Product code:** M1221

**Product name:** 2-METHOXYETHANOL, REAGENT, ACS
14. TRANSPORT INFORMATION

DOT
UN-No: UN1188
Proper Shipping Name: Ethylene glycol monomethyl ether
Hazard Class: 3
Subsidiary Class: No information available
Packing group: III
Emergency Response Guide Number: 127
Marine Pollutant: Severe Marine Pollutant
DOT RQ (lbs): No information available
Special Provisions: B1, IB3, T2, TP1
Symbol(s): No information available
Description: UN1188, Ethylene glycol monomethyl ether, 3, III

TDG (Canada)
UN-No: UN1188
Proper Shipping Name: Ethylene glycol monomethyl ether
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant: No Information available
Description: UN1188, Ethylene glycol monomethyl ether, 3, III

ADR
UN-No: UN1188
Proper Shipping Name: Ethylene glycol monomethyl ether
Hazard Class: 3
Packing Group: III
Subsidiary Risk: No information available
Description: UN1188, Ethylene glycol monomethyl ether, 3, III

IMO / IMDG
UN-No: UN1188
Proper Shipping Name: Ethylene glycol monomethyl ether
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant: No information available
EMS: F-E
Description: UN1188, Ethylene glycol monomethyl ether, 3, III

RID
UN-No: UN1188
Proper Shipping Name: Ethylene glycol monomethyl ether
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Description: UN1188, Ethylene glycol monomethyl ether, 3, III

ICAO
UN-No: UN1188
Proper Shipping Name: Ethylene glycol monomethyl ether
Hazard Class: 3
Subsidiary Risk: No information available

Product code: M1221
Product name: 2-METHOXYETHANOL, REAGENT, ACS
Packing Group: III
Description: UN1188, Ethylene glycol monomethyl ether, 3, III

IATA
UN-No: UN1188
Proper Shipping Name: Ethylene glycol monomethyl ether
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
ERG Code: 3L
Special Provisions: No information available
Description: UN1188, Ethylene glycol monomethyl ether, 3, III

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>U.S. TSCA</th>
<th>KOREA KECL (PICCS)</th>
<th>Philippines (PICCS)</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>109-86-4</td>
<td>Present</td>
<td>Present KE-23272</td>
<td>Present (2)-405</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>203-713-7</td>
</tr>
</tbody>
</table>

U.S. Regulations

2-Methoxyethanol
Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 1211
New Jersey (EHS) List: 1211 500 lb TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List: Present
Minnesota - Hazardous Substance List: Present
California Directors List of Hazardous Substances: Present


Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
⚠️ WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm (See table below)

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
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<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>109-86-4</td>
<td>Not Listed</td>
<td>developmental toxicity</td>
<td>male reproductive toxicity</td>
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CERCLA/SARA

<table>
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<th>Components</th>
<th>CAS-No.</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
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<td>2-Methoxyethanol</td>
<td>109-86-4</td>
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<td>None</td>
<td>None</td>
<td>None</td>
<td>1.0 % de minimis concentration</td>
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U.S. TSCA

Product code: M1221
Product name: 2-METHOXYETHANOL, REAGENT, ACS
<table>
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<th>CAS-No.</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
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<td>109-86-4</td>
<td>40 CFR 721.10001</td>
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</table>

### Canada

#### WHIMIS 2015 - GHS Classifications

**WHIMIS 2015 Hazard Classification Information:**

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<tr>
<th>Component</th>
<th>WHIMIS 2015 Hazard Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>Flammable liquids - Category 3: H226 Flammable liquid and vapour.; Acute toxicity - Dermal - Category 4: H312 Harmful in contact with skin.; Acute toxicity - Inhalation - Category 3: H331 Toxic if inhaled.; Reproductive Toxicity - Category 1: H360 May damage fertility or the unborn child.; Specific target organ toxicity - Repeated exposure - Category 1: H372 Causes damage to organs through prolonged or repeated exposure.</td>
</tr>
</tbody>
</table>

#### Canada Hazardous Products Regulation

This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR.

**WHIMIS 1988 Hazard Class**

- B3 Combustible liquid
- D1B Toxic materials
- D2A Very toxic materials

### Components

<table>
<thead>
<tr>
<th>2-Methoxyethanol</th>
<th>WHIMIS 1988</th>
</tr>
</thead>
<tbody>
<tr>
<td>109-86-4 (100)</td>
<td>B3,D1B,D2A</td>
</tr>
</tbody>
</table>

#### Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

<table>
<thead>
<tr>
<th>Components</th>
<th>WHMIS Ingredient Disclosure List -</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>0.1 %</td>
</tr>
</tbody>
</table>

### Inventory

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Canada (DSL)</th>
<th>Canada (NDSL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>109-86-4</td>
<td>Present</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>CEPA Schedule I - Toxic Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>109-86-4</td>
<td>Present</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>CEPA-2010 Greenhouse Gases Subject to Mandatory Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>109-86-4</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

### EU Classification

**EU GHS - SV - CLP 1272/2008**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>EU GHS - SV - CLP (1272/2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>109-86-4</td>
<td>Flammable liquids - Flam. Liq. 3: H226 Flammable liquid and vapour.; Acute toxicity - Oral - Acute Tox. 4: H302 Harmful if swallowed. (Minimum classification); Acute toxicity - Dermal - Acute Tox. 4: H312 Harmful in contact with skin. (Minimum classification); Acute toxicity - Inhalation - Acute Tox.</td>
</tr>
</tbody>
</table>

**Product code:** M1221 **Product name:** 2-METHOXYETHANOL, REAGENT, ACS
4: H332 Harmful if inhaled. (Minimum classification); Reproductive Toxicity - Repr. 1B: H360FD May damage fertility. May damage the unborn child.

EU - CLP (1272/2008)

**R-phrase(s)**
- R10 - Flammable.
- R20 - Harmful by inhalation.
- R21 - Harmful in contact with skin.
- R22 - Harmful if swallowed.
- R60 - May impair fertility.
- R61 - May cause harm to the unborn child.

**S-phrase(s)**
- S 7 - Keep container tightly closed.
- S16 - Keep away from sources of ignition - No smoking.

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>109-86-4</td>
<td>R10 Xn; R20/21/22 Repr.Cat.2; R60-61</td>
<td>No information</td>
<td></td>
</tr>
</tbody>
</table>

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**
Xn - Harmful.

### 16. OTHER INFORMATION

**Preparation Date:** 07/12/2018  
**Revision Date:** 07/12/2018  
**Prepared by:** Sonia Owen

**Disclaimer:**
All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet

**Product code:** M1221  
**Product name:** 2-METHOXYETHANOL, REAGENT, ACS