SAFETY DATA SHEET

Preparation Date: 4/19/2013 **Revision Date:** 7/26/2018 **Revision Number:** G3

1. IDENTIFICATION

Product identifier

Product code: P1438
Product Name: PROPYLENE GLYCOL METHYL ETHER

Other means of identification

Synonyms:
1-Methoxy-2-propanol
alpha-Propylene glycol monomethyl ether
Glycol ether PM
Methoxy ether of propylene glycol
Methyl proxitol
PGME
Poly-Solve MPM
Propasol solvent M
1-Methoxy-2-Hydroxypropane
Propylene glycol monomethyl ether
Éther de Méthyle de propylèneglycol (French)
Propylène Glycol méthyl éther (French)
1-méthoxy-2-propanol (French)

CAS #: 107-98-2
RTECS # UB7700000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Solvent. Inks. Paints.
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

Classification

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)

Serious eye damage/eye irritation	Category 2B
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 3

Label elements

Warning

Hazard statements
Causes eye irritation
May cause respiratory irritation. May cause drowsiness or dizziness
Flammable liquid and vapor

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
May be harmful if inhaled
Causes mild skin irritation

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
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
Keep cool

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.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
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 in a well-ventilated place. Keep container tightly closed
Store locked up

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Propylene Glycol Methyl Ether	107-98-2	100

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 removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention.

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

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

Most important symptoms and effects, both acute and delayed

Symptoms

Mild skin irritation
Mild eye irritation
Central nervous system effects
Headache
Dizziness
Drowsiness
Narcosis
Ataxia
Irritating to respiratory system
Dyspnea (Difficulty breathing and shortness of breath)
Nausea
Vomiting

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: Carbon dioxide (CO2). Dry chemical. Alcohol-resistant foam. Water spray.

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

Hazardous Combustion Products: No information available.

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, corrosive 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. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. 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. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods and material for containment and cleaning up

Methods for containment Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container.

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

Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment 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. Keep away from heat and sources of ignition. Store in a segregated and approved area. Store away from incompatible materials.

Incompatible Materials:
Oxidizing agents
Acids

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Propylene Glycol Methyl Ether	107-98-2	None	100 ppm TWA 360 mg/m³ TWA 150 ppm STEL 540 mg/m³ STEL	100 ppm STEL 50 ppm TWA	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Propylene Glycol Methyl Ether	107-98-2	100 ppm TWA 369 mg/m³ TWA 150 ppm STEL 553 mg/m³ STEL	50 ppm TWA 75 ppm STEL	100 ppm STEL	None

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Propylene Glycol Methyl Ether	107-98-2	150 ppm STEL 553 mg/m³ STEL 100 ppm TWA 369 mg/m³ TWA	None

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 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

Physical state:
Liquid

Appearance:
No information available.

Color:
Clear. Colorless.

Odor:
Mild. Sweet. Ethereal.

Taste
Bitter.

Formula:
C4-H10-O2

Molecular/Formula weight (g/mole):
90.12

Flammability:
No information available

Flash point (°C):
32

Flashpoint (°C/°F):
32-38 °C/89.6-100.4 °F
35.5-36.1 °C/ 96-97 °F

Flash Point Tested according to:
Closed cup
Open cup

Autoignition Temperature (°C/°F):
No information available

Lower Explosion Limit (%):
1.6%

Upper Explosion Limit (%):
13.8%

Melting point/range(°C/°F):
-97 to -95 °C/-142.6 to -139 °F

Decomposition temperature(°C/°F):
No information available

Boiling point/range(°C/°F):
119-120 °C/246.2-248 °F

Bulk density:
No information available

Density (g/cm3):
0.9234-9620

Specific gravity:
0.919

pH:
No information available

Vapor pressure @ 20°C (kPa):
1.1

Evaporation rate:
No information available

Vapor density:
3.11

VOC content (g/L):
No information available

Odor threshold (ppm):
10

Partition coefficient (n-octanol/water):
-0.49

Viscosity:
No information available

Miscibility:
Miscible with water
Miscible with Ether
Miscible with Methanol

Solubility:
Freely soluble in water
Soluble in Methanol
Soluble in Ether

10. STABILITY AND REACTIVITY

Reactivity
Reactive with oxidizing agents
Reactive with acids

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Oxidizing agents
Acids

Hazardous decomposition products: Carbon monoxide. Carbon dioxide.

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Skin. Eyes. Inhalation.

Acute Toxicity

Component Information

Propylene Glycol Methyl Ether	
CAS-No.	107-98-2

LD50/oral/rat = 5000 mg/kg Oral LD50 Rat; 5200 mg/kg
LD50/oral/mouse = 11700 mg/kg
LD50/dermal/rabbit = 13 g/kg Dermal LD50Rabbit
LD50/dermal/rat = No information available
LC50/inhalation/rat = 24 mg/L Inhalation LC50 Rat 1 h
54.6 mg/L Inhalation LC50 Rat 4 h
>7559 ppm Inhalation LC50 Rat 6 h
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = 5700 mg/kg LD50 Oral Rabbit

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 5200 mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 11700 mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = 13000 mg/kg

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = 54.6 mg/l (4-hr)
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation. Mild skin irritation. It may be absorbed through the skin. If absorbed through skin it may cause systemic effects with symptoms similar to those of ingestion.

Eye Contact: May cause eye irritation. Mild eye irritation.

Inhalation Irritating to respiratory system.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. It may affect the brain. May affect behavior/central nervous system (somnolence, convulsions). May affect behavior/central nervous system (ataxia). May affect respiration (difficult or labored breathing resulting in shortness of breath).

Aspiration hazard No information available.

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

Chronic Toxicity Prolonged or repeated inhalation may cause central nervous system effects. Prolonged or repeated inhalation may affect the brain. Prolonged or repeated inhalation may affect the liver. Prolonged or repeated inhalation may affect metabolism (weight loss). Prolonged or repeated inhalation may affect the kidneys. Prolonged or repeated inhalation may affect the blood (changes in serum composition). Prolonged or repeated ingestion may affect the liver. Prolonged or repeated ingestion may affect the blood (leukopenia).

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Propylene Glycol Methyl Ether	107-98-2	Not listed	A4 Not Classifiable as a Human Carcinogen	Not listed	Not listed	Not listed	Not listed

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 No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: May cause birth defects (teratogenic effects) based on animal test data
It has not been shown to cause teratogenic effects in humans

Specific Target Organ Toxicity

STOT - single exposure Respiratory system.
STOT - repeated exposure No information available.
Target Organs: Respiratory system. Lungs. Liver. Kidneys. Central nervous system.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Propylene Glycol Methyl Ether - 107-98-2

Freshwater Fish Species Data: 20.8 g/L LC50 Pimephales promelas 96 h static 1 4600 - 10000 mg/L LC50 Leuciscus idus 96 h static 1

Water Flea Data: 23300 mg/L EC50 Daphnia magna 48 h

Persistence and degradability: No information available

Bioaccumulative potential: Potential for bioconcentration in aquatic organisms is low.

Mobility: It is expected to have very high mobility based on estimated Koc.

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

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Propylene Glycol Methyl Ether	107-98-2	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: Not Regulated
Proper Shipping Name: 1-Methoxy-2-propanol
Hazard Class: 3
Subsidiary Class No information available
Packing group: No information available
Emergency Response Guide Number No information available
Marine Pollutant No data available
DOT RQ (lbs): No information available
Special Provisions No Information available
Symbol(s): No information available
Description: UN3092,1-Methoxy-2-propanol ,3,,PG III

TDG (Canada)

UN-No: UN3092
Proper Shipping Name: 1-Methoxy-2-propanol
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant No Information available
Description: 1-METHOXY-2-PROPANOL,3,UN3092,PG III

ADR

UN-No: UN3092
Proper Shipping Name: 1-Methoxy-2-propanol
Hazard Class: 3
Packing Group: III
Subsidiary Risk: No information available
Description: UN3092 1-Methoxy-2-propanol,3,III

IMO / IMDG

UN-No:	UN3092
Proper Shipping Name:	1-Methoxy-2-propanol
Hazard Class:	3
Subsidiary Risk:	No information available
Packing Group:	III
Marine Pollutant	No information available
EMS:	F-E

RID

UN-No:	UN3092
Proper Shipping Name:	1-Methoxy-2-propanol
Hazard Class:	3
Subsidiary Risk:	3
Packing Group:	III
Description:	UN3092 1-Methoxy-2-propanol,3,III,RID

ICAO

UN-No:	UN3092
Proper Shipping Name:	1-Methoxy-2-propanol
Hazard Class:	3
Subsidiary Risk:	No information available
Packing Group:	III
Description:	1-Methoxy-2-propanol,3,UN3092,PG III

IATA

UN-No:	UN3092
Proper Shipping Name:	1-Methoxy-2-propanol
Hazard Class:	3
Subsidiary Risk:	No information available
Packing Group:	III
ERG Code:	3L
Special Provisions	No information available
Description:	UN3092,1-Methoxy-2-propanol,3,PG III

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Propylene Glycol Methyl Ether	107-98-2	Present(ACTIVE)	Present KE-23379	Present	Present (2)-404,(7)-97	Present	Present	Present 203-539-1

U.S. Regulations

Propylene Glycol Methyl Ether

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 1613
Pennsylvania RTK: Present
Minnesota - Hazardous Substance List: Present
California Directors List of Hazardous Substances: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

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:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Propylene Glycol Methyl Ether	107-98-2	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Propylene Glycol Methyl Ether	107-98-2	None	None	None	None	None

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Propylene Glycol Methyl Ether	107-98-2	Not Applicable	Not Applicable

Canada

WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information: .

Component	WHMIS 2015 Hazard Classification
Propylene Glycol Methyl Ether 107-98-2 (100)	Flammable liquids - Category 3: H226 Flammable liquid and vapour.; Specific target organ toxicity - Single exposure - Category 3: H336 May cause drowsiness or dizziness.

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

WHMIS 1988 Hazard Class
B2 Flammable liquid

Components	WHMIS 1988
Propylene Glycol Methyl Ether	B2

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.

Components	WHMIS Ingredient Disclosure List -
Propylene Glycol Methyl Ether	1 %

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Propylene Glycol Methyl Ether	107-98-2	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Propylene Glycol Methyl Ether	107-98-2	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Propylene Glycol Methyl Ether	107-98-2	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Propylene Glycol Methyl Ether	107-98-2	Flammable liquids - Flam. Liq. 3: H226 Flammable liquid and vapour.; Specific target organ toxicity - Single exposure - STOT SE 3: H336 May cause drowsiness or dizziness.603-064-00-3

EU - CLP (1272/2008)

R-phrase(s)
R10 - Flammable.
R67 - Vapors may cause drowsiness and diziness.

S -phrase(s)
S 2 - Keep out of the reach of children.

Components	CAS-No.	**Classification**	**Concentration Limits:**	**Safety Phrases**
Propylene Glycol Methyl Ether	107-98-2	R10 R67	No information	S:(2)

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

Indication of danger:
Flammable

16. OTHER INFORMATION

Preparation Date: 4/19/2013
Revision Date: 7/26/2018
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