

TransChem, Inc.
3785 Via Nona Marie, Suite 300
Carmel, CA 93923

Phone 831-626-6140
Fax 831-626-2710
Web Site: www.wesellchemicals.com

Material Safety Data Sheet Glycol Ether PM

PRODUCT & COMPANY IDENTIFICATION

In case of Emergency call CHEMTREC 1-800-424-9300

Supplier	TransChem, Inc., 3785 Via Nona Marie, Suite 300, Carmel, CA 93923 831-626-6140
Trade Names / Synonyms	1-METHOXY-2-PROPANOL METHOXY ETHER OF PROPYLENE GLYCOL PROPYLENE GLYCOL METHYL ETHER ALPHA-PROPYLENE GLYCOL MONOMETHYL ETHER POLYPROPYLENE GLYCOL METHYL ETHER PROPYLENE GLYCOL 1-METHYL ETHER (+/-)-1- METHOXY-2-PROPANOL DOWANOL 33B DOWANOL PM DOWTHERM 209 GLYCOL ETHER PM PGME POLY-SOLVE MPM PROPASOL SOLVENT M UCAR SOLVENT LM
Formula	CH ₃ OCH ₂ CH(OH)CH ₃
Chemical Name	PROPYLENEGLYCOLMONOMETHYLETHER
Mol. Wgt	90.12

COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Percent	Hazardous
1-METHOXY-2-PROPANOL	107-98-2	98 – 100%	Yes
1-METHOXY-2-PROPANOL	1589-47-5	0 – 2%	yes

HAZARD IDENTIFICATION

Warning! Flammable liquid and vapor. Harmful if inhaled. Affects central nervous system. May be harmful if swallowed or absorbed through skin. May cause irritation.

POTENTIAL HEALTH EFFECTS

Inhalation	Vapors are irritating to the respiratory tract. Vapors are disagreeable to breathe above 100-ppm because of objectionable odor. Eye, nasal and throat irritation will occur before any central nervous system effects, which occur at 1000-ppm headache, dizziness, drowsiness and incoordination may occur.
Ingestion	Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea. Symptoms may parallel those from inhalation.
Skin Contact	May cause irritation with redness and pain. May be absorbed through the skin with possible systemic effects.
Chronic Exposure	Chronic exposure may damage the liver and kidneys.

FIRST AID MEASURES

INHALATION	IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, self-contained Breathing Apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to that advised under Respirator Recommendation.
INGESTION	DO NOT INDUCE VOMITING. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. Be prepared to transport the victim to a hospital if advised by a physician. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING. IMMEDIATELY transport the victim to a hospital.
SKIN CONTACT	IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, IMMEDIATELY call a physician and be prepared to transport the victim to a hospital for treatment.
EYE CONTACT	First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. Immediately transport the victim after flushing eyes to a hospital even if no symptoms such as redness or irritation) develop.
Symptoms/ Exposure	Symptoms of exposure to this compound may include irritation of the eyes, nose, throat, and mucous membranes [058,346,371,430]. Other symptoms may include headache, nausea, central nervous system depression, and abnormal Romberg behavior [346]. It can cause irritation of the skin; and vomiting [058]. It can also cause central nervous system effects and damage to the liver and kidneys [301]. Prolonged contact with the skin can result in reddening and smarting [371]. Eye contact can result in transient pain to the eyes [430]. High concentrations can cause lacrimation and anesthesia [421]. It can also cause coma [058]. Exposure to experimental animals has resulted in mild to profound central nervous system depression, somnolence, dyspnea, ataxia, minor kidney injury, shallow breathing, decreased blood pressure, auricular arrhythmia, convulsions, respiratory failure, and death [430]. It has also caused anesthesia, mild narcosis, slight growth depression, and slight lung effects in experimental animals [421].

HEALTH RATINGS

Health Rating	1, Slight
Flammability	3, severe (flammable)
Contact	1, slight
Lab Protective Equip.	Goggles, lab coat vent hood, proper gloves, and class B extinguisher.

ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, and earth), and place in a chemical waste container. Do not cue combustible materials, such as saw dust. Do not flush to sewer. If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures.

FIRE FIGHTING MEASURES

Fire	Flash point: 32° C (90° F) CC , Flammable limits in air %: <ul style="list-style-type: none">• Lel - 1.6• Uel - 13.8• Flammable liquid
Explosion	Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back.
Fire Extinguishing Media	Dry chemical, foam or carbon dioxide. Water may be ineffective. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.
Special Information	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face-piece operated in the pressure demand or other positive pressure mode.

HANDLING AND STORAGE

Protect against physical damage. Store in a cool, dry well ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be no smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

STABILITY AND REACTIVITY

Stability	Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products	Carbon dioxide and carbon monoxide may form when heated to decomposition.
Hazardous Polymerization	Will not occur
Incompatibilities	Strong oxidizers, strong acids, strong bases, aluminum. And copper. This substance acts as a solvent with many resins, plastics and rubbers.
Conditions to Avoid	Heat, flames, ignition sources and incompatibles.

PHYSICAL PROPERTIES

Appearance	Clear, colorless liquid.
Odor	Slight ethereal odor
Solubility	Miscible in water.
Density	0.962 at 20° C / 4° C /
Boiling point	120° C (248° F)
Melting point	-9° C (-13° F)
Vapor Density (air = 1)	3.11
Vapor pressure 9mm Hg)	11.8 at 25° C (77° F)
Evaporation Rate	0.71
Specific gravity	0.917 @ 25/4° C [430] 0.9234 @ 20/20° C [062] 0.919 @ 25/25° C [042] 0.9161 @ 23.9/22° C [052]
Setts to glass Refractive index	1.4023 @ 20° C 1.042 @ 25° C
Odor	Mild, pleasant, ethereal odor is transiently objectionable above 100 ppm
Critical Temperature	281° C
Latent heat of vaporization	92.3 cal/g
Heat of combustion	-7580 cal/g

TOXICOLOGICAL INFORMATION

Oral rat LD50	5560 mg/kg
Skin Rabbit Ld50	13,000 mg/kg
Inhalation Rat LC 50	10,000 ppm/5-hour investigated as a reproductive effector.

ECOLOGICAL INFORMATION

When released into the soil, this material may leach into groundwater. When released into the soil, this material may biodegrade to a moderate extent. When released into water, this material is not expected to evaporate significantly. When released into the water, this material may biodegrade to a moderate extent. This material has an estimated bioconcentration factor (BCF0 of less than 100. This material is not expected to significantly geo-accumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. This material, when released into the air, is expected to have a half-life between 1 and 10 days, this material is also expected to be readily removed from the atmosphere by wet deposition.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne Exposure Limits	ACGIH threshold limit value: 100 ppm (TWA), 150 ppm (STEL)
Ventilation System	A system of local and/or general exhaust is recommended to keep employee exposures below the airborne exposure limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, prevent dispersion of it into the general work area. Please refer to the ACGIH document, industrial ventilation, a manual of recommended practices, most recent edition, for details.
Personal Respiration (NIOSH Approved)	If the exposure limit is exceeded, a half face organic vapor respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full face piece organic vapor respirator may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive pressure, air supplied respirator. Warning: air-purifying respirators do not protect workers in oxygen deficient atmospheres.
Skin Protection	Wear protective gloves and clean body covering clothing.
Eye Protection	Use chemical safety goggles. Maintain eye wash fountain and quick drench facilities in work area

DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

TRANSPORT INFORMATION

Domestic (Land, D.O.T)	
Proper Shipping Name	1-methoxy-2-propanol
Hazard Class	3
UN/NA	UN 3092
Packing Group	III
Information Reported For Product/Size	20L
International (Water, I.M.O.)	
Proper Shipping Name	1-methoxy-2-propanol
Hazard Class	3.3
UN/NA	UN 3092
Packing Group	III
Information Reported For Product/Size	20L

CHEMICAL WEAPONS CONVENTION

This MSDS has been prepared according to the hazard criteria of the controlled product regulation ©PR and the MSDS contains all of the information required by the CPR.

REGULATORY INFORMATION

Ingredient	TSCA	EC	Japan	Australia
1-METHOXY-2-PROPANOL (107-98-2)	yes	yes	yes	yes
2-METHOXY-1-PROPANOL (1589-47-5)	yes	yes	yes	yes

Ingredient	Korea	DSL	NDSL	Phil
1-METHOXY-2-PROPANOL (107-98-2)	yes	yes	No	yes
2-METHOXY-1-PROPANOL (1589-47-5)	yes	yes	No	yes

Ingredient	SARA 302		SARA 313	
	RQ	TPQ	List	Chemical Catg.
1-METHOXY-2-PROPANOL (107-98-2)	No	No	No	Glycol ether
2-METHOXY-1-PROPANOL (1589-47-5)	No	No	No	No

Federal, State and International Regulations – part 2

Ingredient	CERCLA	RCRA 261.33	TSCA 8(d)
1-METHOXY-2-PROPANOL (107-98-2)	1	No	yes
2-METHOXY-1-PROPANOL (1589-47-5)	No	No	No

TSCA 12 (b)	No
CDTA	NO
Acute	Yes
Chronic	Yes
Fire	Yes
Pressure	No
Reactivity	No (pure/ Liquid)

OTHER INFORMATION

NFPA Ratings:

Health	1
Flammability	3
Reactivity	0

Label Hazard Warning:

- Warning, flammable liquid and vapor. Harmful if inhaled. Affects central nervous system. May be harmful if swallowed or absorbed through skin. May cause irritation to skin, eyes, and respiratory tract.

Label Precautions:

- Avoid contact with eyes, skin and clothing.
- Keep away from heat, sparks and flame.
- Keep container closed.
- Wash thoroughly after handling.
- Use only with adequate ventilation.

Label First Aid:

- If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. If swallowed, give several glasses of water to drink to dilute. If large amounts were swallowed or symptoms occur, get medical advice. Never give anything by mouth to an unconscious person. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms occur.

Product Use:

- Laboratory reagent. MSDS. Section(s) changed since last revisions of document include 2,3,4,11,15.

DISCLAIMER

TransChem, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. A properly trained person using this product intends this document only as a guide to the appropriate precautionary handling of material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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