

SECTION 1: PRODUCT IDENTIFICATION

Catalog Name:	PROPYLENE GLYCOL LIQUID USP
Commercial Names:	Not Available
Synonyms:	1,2 - Dihydroxypropane, PG 12, Methylethylene glycol
Chemical Name:	1,2-Propanediol
Chemical Formula:	C ₃ H ₈ O ₂
Cas #:	57-55-6
RTECS:	TY2000000
TSCA:	Not Available
Emergency Contact:	CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification:	Flammable Liquid (Category 4) Skin Irritation (Category 2) Eye Irritation (Category 2B)
Signal Word:	Warning
Hazard and Precautionary Statements:	Combustible liquid. Causes skin irritation and eye irritation. e may cause skin dryness or cracking. Keep away from heat, sparks, open flames and/or hot surfaces - No smoking. Wear protective gloves, eye protection and face protection. Wash thoroughly after handling

Pictograms:



HMIS Health Hazard:	1
HMIS Fire Hazard:	1
HMIS Reactivity:	0
HMIS Personal Protection:	B

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Name	CAS #	% by Weight
PROPYLENE GLYCOL	57-55-6	100

SECTION 4: FIRST AID MEASURES

Inhalation:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Skin Contact:	Wash with soap & water for 15 minutes. If irritation persists seek medical aid
Eye Contact:	Flush with copious amounts of water for 15 minutes, separating eyelids with fingers. If irritation persists seek medical aid.
Ingestion:	Call a physician. Wash out mouth with water. Do not induce vomiting without medical advice.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Small fire: dry chemical, CO ₂ or water spray. Large fire: dry chemical, CO ₂ , alcohol resistant foam or water spray.
Unsuitable Extinguishing Media:	Do not get water inside containers.
Hazardous Combustion Products:	Under fire conditions, hazardous fumes will be present.
Specific Hazards:	Combustible
Specific Methods:	Not Available
Special Protective Equipment for Firefighters:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental Precautions:	Prevent entry into waterways, sewers, basements or confined areas.
Methods and materials for containment and clean up:	On land, sweep or shovel into suitable containers. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Shut off all sources of ignition. Evacuate the area. If necessary, employ water fog to disperse the vapors. Absorb the matter with compatible vermiculite or other absorbing material. Place in a suitable container and retain for disposal. Ventilate and clean the affected area. Do not flush into sewerage system or to drains.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:	Do not inhale. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling. Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.
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Conditions for safe storage:

Store in original container, tightly sealed, protected from direct sunlight and moisture. Preserve in tight containers.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:	Consult local authorities for provincial or state exposure limits. Particulates not otherwise regulated, respirable fraction: 5 mg/m ³ .
Engineering Controls:	Adequate mechanical ventilation. Fumehood, eye wash station, and safety shower
Personal Protection:	Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by WHMIS or OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to minimize contact with skin. Respirators: Follow WHMIS or OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Other Notes:	OEL: AUSTRALIA: TWA: 10 mg/m ³ (150 ppm). OEL: RUSSIA: STEL: 7 mg/m ³ . CAD ON OEL: TWAEV: 155 mg/m ³ (50 ppm)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

1:	PHYSICAL STATE/DESCRIPTION: Liquid. Clear, colorless, viscous liquid. Is practically odorless. Absorbs moisture when exposed to moist air.
2:	MELTING POINT/FREEZING POINT: -59°C, -74.2°F
3:	BOILING POINT: 188.2°C, 370.76°F
4:	FLASH POINT: 98.89°C, 210.002°F (closed cup)
5:	SPECIFIC GRAVITY: 1.035 – 1.037
6:	RELATIVE DENSITY (WATER = 1): 1.04
7:	log P (OCTANOL-WATER): - 0.92
8:	LOWER FLAMMABLE & UPPER FLAMMABLE/ EXPLOSIVE LIMIT(S): 2.6 %(V) (Estimated) - 12.5 %(V) (Estimated)
9:	AUTO-IGNITION TEMPERATURE: 371.11°C, 700°F
10:	VISCOSITY: 48.6 mPa·s (25°C)

SECTION 10: STABILITY AND REACTIVITY

Possibility of hazardous reactions:	Not Available
Chemical Stability:	Stable under recommended storage conditions.
Conditions to Avoid:	Moisture, sunlight and extreme temperatures.
Incompatible Materials:	Strong oxidizing agents. Strong acids. Reducing agents. Caustics. Aliphatic amines. Isocyanates. Acid chlorides. Acid anhydrides. Chloroformates.
Hazardous Decomposition Products:	Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides and other gases may occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of entry:	Inhalation, ingestion, dermal and eyes
Potential Acute Health Effects:	Inhalation: At room temperature, exposure to vapor is minimal due to low volatility. Mist may cause irritation of upper respiratory tract (nose and throat). Dry throat. Cough. Ingestion: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. Ingestion of large amounts could cause metabolic acidosis. Skin: Prolonged skin contact is unlikely to result in absorption of harmful amounts. Prolonged contact is essentially nonirritating to skin. Repeated contact may cause flaking and softening of skin. Eyes: Cause mild eye irritation. Dryness of eyes. Pain. Itching. Corneal injury is unlikely
Potential Chronic Health Effects:	Symptoms related to the physical, chemical, and toxicological characteristics: Headache. Dizziness. Drowsiness. Seizures. Gastrointestinal disturbances. Delayed and immediate effects of exposure: Central nervous system depression. Lactic acidosis. Coma. Cardiovascular collapse. Hypoglycemia. Medical conditions aggravated by exposure: Impaired kidney function.
Other Toxic Effects on Humans:	Not Available
Carcinogenic Effects:	OSHA, NTP – PROPYLENE GLYCOL is not listed. PROPYLENE GLYCOL is not evaluated. This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.
Mutagenic Effects:	Based on available data, the classification criteria are not met. In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.
Teratogenic Effects and Developmental Toxicity:	Based on available data, the classification criteria are not met. The Center for the Evaluation of Risks to Human Reproduction concluded that propylene glycol is not a reproductive or developmental toxicant in animals, and that human developmental or reproductive risks are of negligible concern.
Acute Toxicity:	Oral: Rat: LD50: (mg/kg): 30000 Dermal: Rat LD50: (mg/kg): 10000 Inhalation: Rat: LC50: (mg/L/4hr): Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:	EC50: 48 Hr: Crustacea: Daphnia magna: (mg/L): > 10000 LC50: 96 Hr: Fish: (mg/L): >100 mg/L (in the most sensitive species tested) EC50: 72 Hr: Algae: (mg/L): Not available
Persistence and Degradability:	Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Biodegradation may occur under anaerobic conditions (in the absence of oxygen). Biodegradation: 81%; Exposure time: 28 d; Method: OECD Test Guideline 301F Biodegradation: 96%; Exposure time: 64d; Method: OECD Test Guideline 306 or Equivalent
Bioaccumulative Potential:	Low. (BCF < 100 or Log Pow < 3) Log Pow: -1.07 (Measured) Bioconcentration factor (BCF): 0.09 (Estimated)
Mobility in Soil:	Water Solubility: 1.00E+06 mg/L (20°C) Henry's Law Constant: 1.29E-08 atm·m ³ /mole (25°C) Potential for mobility in soil is very high (Koc between 0 and 50). Partition coefficient (Koc): < 1 (Estimated) Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process. Potential for mobility in soil is very high.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of in accordance with federal / local laws and regulations. Avoid release into the environment.

SECTION 14: TRANSPORTATION INFORMATION

DOT: Not dangerous good
TDG: Not Available
IATA: Not Available

SECTION 15: REGULATORY INFORMATION

Federal and State Regulations: Chemical Name & CAS: PROPYLENE GLYCOL, USP 57-55-6; CERCLA 40 CFR Part 302.4, SARA (Title III) 40 CFR Part 372.65, EPA 40 CFR Part 355 Appendix A & Appendix B, Right-to-know: Massachusetts, California Prop 65 – Not listed. EPA 40 CFR Part 355 Appendix A & Appendix B, Right-to-know: Pennsylvania, New Jersey – Listed.

Other Regulations: Not Available

SECTION 16: OTHER INFORMATION

Preparation Date: 1/15/2025

Prepared By: Tammy McDonald

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. Xenex Laboratories 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, Xenex Laboratories assumes no responsibility for the completeness or accuracy of the information contained herein.