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Material Safety Data Sheet (MSDS)

Mono Propylene Glycol (MPG)

Section 1: Product and Company Identification

Item	Description
Product Name	Mono Propylene Glycol
Synonyms	Propylene Glycol, MPG, 1,2-Propanediol
CAS Number	57-55-6
EC Number	200-338-0
Chemical Formula	C3H8O2
Molecular Weight	76.09 g/mol
Supplier	Basekim
Recommended Uses	Industrial solvents, resins, antifreeze, cosmetics, and approved food or pharmaceutical applications using suitable grades

Section 2: Hazards Identification

GHS Classification: Not classified as hazardous under the US OSHA Hazard Communication Standard for the referenced pure substance.

Signal Word: Not required.

Hazard Pictograms: Not required.

Potential Hazards:

- Eye contact may cause mild irritation.
- Prolonged skin contact may cause irritation in sensitive individuals.
- Inhalation of concentrated mist may irritate the respiratory tract.
- Large quantities ingested may cause adverse health effects.
- Heated liquid can burn and generate irritating decomposition products.

Section 3: Composition and Information on Ingredients

Component	CAS Number	Concentration
Propylene Glycol	57-55-6	Grade-dependent; verify COA

The exact purity and impurity profile depend on the supplied product grade.

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Section 4: First Aid Measures

Eye Contact:

Rinse immediately with clean water for at least 15 minutes. Remove contact lenses if possible. Seek medical attention if irritation continues.

Skin Contact:

Wash the affected area thoroughly with soap and water. Remove contaminated clothing.

Inhalation:

Move the affected person to fresh air. Seek medical assistance if respiratory symptoms develop.

Ingestion:

Rinse the mouth with water. Do not induce vomiting. Seek medical advice if symptoms develop or a large quantity has been swallowed.

Section 5: Firefighting Measures

Property	Information
Flash Point	Approximately 99–103°C
Autoignition Temperature	Approximately 400°C
Suitable Extinguishing Media	Water spray, CO2, dry chemical, alcohol-resistant foam
Combustion Products	Carbon monoxide and carbon dioxide

Firefighters should wear suitable protective equipment and self-contained breathing apparatus.

Keep containers away from excessive heat and ignition sources.

Section 6: Accidental Release Measures

- Wear appropriate protective equipment.
- Ensure adequate ventilation.
- Prevent spills from entering drains and waterways.
- Absorb spilled material with sand or another inert absorbent.
- Collect waste in suitable containers.

- Clean the affected area thoroughly.

Spilled liquid can create slippery surfaces.

Section 7: Handling and Storage

Handling:

Avoid unnecessary contact with skin and eyes. Maintain adequate ventilation and follow standard industrial hygiene practices.

Storage:

- Keep containers tightly closed.
- Store in a cool, dry, ventilated area.
- Protect against excessive heat and contamination.
- Keep away from strong oxidizing agents.
- Use clean, compatible storage equipment.

Propylene glycol absorbs moisture from the atmosphere. Therefore, sealed packaging helps maintain product quality.

Section 8: Exposure Controls and Personal Protection

Protection	Recommendation
Eye Protection	Chemical safety glasses or goggles
Hand Protection	Suitable chemical-resistant gloves
Skin Protection	Protective work clothing
Respiratory Protection	Appropriate protection when ventilation is insufficient or mist exposure requires it
Ventilation	Adequate general or local exhaust ventilation

No OSHA permissible exposure limit has been established specifically for propylene glycol.

Wash hands after handling the material.

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Section 9: Physical and Chemical Properties

Property	Typical Value
Appearance	Clear, colorless liquid
Odor	Nearly odorless
Molecular Weight	76.09 g/mol
Boiling Point	Approximately 187–188°C
Melting Point	Approximately -59°C
Flash Point	Approximately 99–103°C
Density	Approximately 1.036 g/cm³ at 20°C
Water Solubility	Completely miscible
Vapor Pressure	Approximately 0.13 mbar at 20°C
Physical State	Viscous liquid

Values are typical references and may vary with product grade and test method.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal recommended handling and storage conditions.

Conditions to Avoid: Excessive heat, ignition sources, and contamination.

Incompatible Materials: Strong oxidizing agents and strong acids.

Hazardous Decomposition Products: Carbon monoxide and carbon dioxide during combustion.

Hazardous Polymerization: Not expected under normal conditions.

Section 11: Toxicological Information

Toxicological Property	Information
Acute Oral Toxicity	Rat LD50: Approximately 20,000 mg/kg
Skin Contact	May cause mild irritation
Eye Contact	May cause temporary irritation
Inhalation	Concentrated mist may irritate respiratory passages
Carcinogenicity	Not classified as carcinogenic based on available data

Although propylene glycol has relatively low acute toxicity, exposure to large amounts may cause adverse health effects.

Section 12: Ecological Information

Propylene glycol generally exhibits relatively low acute aquatic toxicity.

It is biodegradable and has low expected bioaccumulation potential.

However, large releases may increase the oxygen demand of receiving waters.

Therefore, prevent uncontrolled discharge into waterways and drainage systems.

Section 13: Disposal Considerations

Dispose of the product according to applicable local, national, and international regulations.

Do not discharge large quantities into drains or natural water systems.

Empty containers may retain product residues and require appropriate cleaning or disposal.

Section 14: Transport Information

Transport Classification	Status
UN Number	Not assigned
ADR/RID	Generally not regulated as dangerous goods
IMDG	Not regulated
IATA	Not regulated
Marine Pollutant	No

Transport classification applies to the referenced pure substance. Verify the classification of any formulated mixture separately.

Section 15: Regulatory Information

- CAS Number: 57-55-6
- EC Number: 200-338-0
- US TSCA Inventory: Listed

- GHS Classification: Not classified as hazardous under the referenced OSHA criteria.

Food and pharmaceutical applications require separate grade-specific regulatory compliance.

Section 16: Other Information

Document Type: Reference Material Safety Data Sheet

Product: Mono Propylene Glycol (MPG)

Preparation Date: 16 September 2026

Disclaimer:

This document provides general safety information for Mono Propylene Glycol. Physical properties, purity, impurities, and regulatory requirements may vary according to the product grade and manufacturer.

Before issuing an official SDS, verify the information against the manufacturer’s current safety data, confirm the applicable regulations, and add the supplier's complete contact and emergency details.