SAFETY DATA SHEET

PRODUCT NAME: HC MONO PROPYLENE GLYCOL 99%

Issue Date: 14 November 2025

SECTION 1: IDENTIFICATION

Product Name:	Monopropylene Glycol (USP Grade)
Other Names:	1,2-Propanediol; 1,2-Dihroxypropane; Methyl glycol; Methylethylene glycol; Propylene glycol
Product Code:	CMPROP, ZMPGLYC
Uses:	Used as a solvent in pharmaceuticals, food and photographic chemicals, as a moisturizer in cosmetics and as a humectant in foods. Used as heat transfer liquid or coolant in refrigeration systems.
Supplier:	HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Hamilton Phone: 079744971 Web: www.hamchem.co.nz Email: info@hamchem.nz

- **In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.**
- **In case of poisoning phone National Poisons Centre – 0800 764 766**

SECTION 2: HAZARD IDENTIFICATION

Non-Hazardous substance according to the criteria of the NZ Hazardous Substances New Organisms legislation.

Emergency Overview: Non-hazardous. Health injuries are not known or expected under normal use. Adverse ecological effects are not known or expected.

Precautionary Statements: If in contact with skin or eyes, rinse thoroughly.

SECTION 3: COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion (%)
Monopropylene Glycol	57-55-6	>99

SECTION 4: FIRST AID MEASURES

If swallowed: Rinse mouth and give a glass of water to drink. First Aid is not generally required. If in doubt, or large quantities are ingested, contact a Poison Centre (0800 764 766) or a Doctor.

If on skin: Flush skin and hair with running water (and soap if available). Seek medical attention in the event of irritation.

If inhaled: If fumes or combustion products are inhaled, remove from contaminated area. Other measures are usually unnecessary. If symptoms persist, call a Doctor.

If in eyes: Flush eye/s with running water for several minutes. If irritation continues, seek medical attention. Removal of contact lenses should only be undertaken by skilled personnel.

Symptoms caused by Exposure: Central Nervous System depression is the primary manifestation of acute propylene glycol poisoning.

Notes to Physician: In case of ingestion, monitor for acidosis and central nervous system changes. Exposed persons with previous kidney dysfunction may require special treatment.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing media: In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions: water spray, dry powder, foam, carbon dioxide (CO_2).

Fire Fighting: Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Use standard procedure for chemical fires. Prevent spillage from entering drains or water courses. Use water delivered as a fine spray to control fire and cool adjacent area. Do NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.

Fire/Explosion Hazard: Combustible liquid. Vapour is heavier than air and will spread along the ground and collect in hollows. Containers may explode in heat or fire.

Fire Incompatibility: Incompatible with strong oxidizing agents and sources of ignition.

Hazards from Combustion Products: When involved in a fire, this product will emit carbon oxides and may form aldehydes. Lactic, pyruvic or acetic acids may be formed.

Personal Protective Equipment: Fire-fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots and gloves)

Hazchem Code: None allocated.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Only full trained personnel should be involved in handling chemicals. Personal Protective Equipment advice is contained in the 'Exposure Controls & Personal Protection' section of this SDS.

Minor Spills: Clean up all spills immediately. Stop spill if safe to do so. Control personal contact with PPE. Avoid generating mist/spray. Pick up/absorb with inert material and transfer to properly labelled containers for disposal. After cleaning, flush away traces with water.

Major Spills: Clear area of personnel. Alert Fire Brigade and tell them location and nature of hazard. Control personal contact by using protective equipment. Prevent spillage from entering drains, sewers or water courses. Cover drains with a drain-mat. Recover product wherever possible. Contain and absorb with an inert material such as vermiculite, dry sand or earth. Put residues in labeled plastic pails or other suitable sealed containers for disposal. If contamination of drains or waterways occurs, advise emergency services. Wash spill area with plenty of water after removal of contaminant.

SECTION 7: HANDLING & STORAGE

Procedure for Handling: Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with skin and eyes. Keep containers closed until ready for use.

Suitable Packaging: Original packaging. Lined metal pail or drum, or plastic pail. Check all containers are labelled and free from leaks.

Storage Incompatibility: Avoid contamination. Store away from Dangerous Goods and Toxic Substances. Incompatible with strong oxidizing agents and sources of ignition.

Storage Requirements: Store tightly in dry, cool, well ventilated conditions out of direct sunlight. Observe label precautions.

SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure Controls: WorkSafe NZ have set Workplace Exposure Standards for this substance

Material	Measurement	Limit
Propane-1,3-diol; vapour and particulates	TWA (time weighted average)	474mg/m³ (150ppm)
Propane-1,3-diol; particulates only	TWA (time weighted average)	10mg/m³

Engineering Controls: Engineering controls such as adequate ventilation to keep employee exposure below the recommended limits is required. Propylene glycol is not volatile but vapours may be formed when agitated or heated.

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Refer to 'A Simple Guide to Local Exhaust Ventilation' found on the WorkSafe NZ website.

Personal Protection Equipment (PPE)

Personal Respirators: For conditions of use where exposure to vapours or particulates is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect works in oxygen-deficient atmospheres. For more information see AS/NZS 1715:2009 and AS/NZS 1716:2003

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Refer to AS/NZS 2161.1:2000 Occupation Protective Gloves – Selection, Use & Maintenance.

Eye Protection: Use approved chemical safety glasses, goggles or a full-face shield where splashing possible. Refer to personal eye protection part 1: Eye and face protectors for occupational applications, AS/NZS 1337.1:2010.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear liquid
State	Liquid
Odour	Odourless
Molecular Weight	76.09
Melting Range (°C)	-59
Boiling Range (°C)	188.2
Solubility in Water (g/L)	Miscible
pH (5% solution, 25°C)	6.7
Specific Gravity (20°C, water = 1)	1.0361

Bulk Density	Not available
Volatile Component (%vol)	Not available
Relative Vapour Density (air=1)	2.6
Vapour Pressure (kPa)	Not available
Autoignition Temp (°C)	371
Flash Point (°C)	99
Lower Explosive Limit (%)	2.6
Upper Explosive Limit (%)	12.5
Decomposition Temp (°C)	Not available
Viscosity	43
Evaporation Rate	Not available

SECTION 10: STABILITY & REACTIVITY

Chemical Stability: Product is stable under normal conditions of use and storage.

Conditions to Avoid: Avoid excessive heat, flames, ignition sources and incompatibles.

Reactivity & Incompatible Materials: Incompatible with strong oxidizing agents and sources of ignition. Keep containers tightly closed to avoid moisture absorption and contamination.

Hazardous Decomposition: Thermal decomposition can lead to release of carbon oxides. Aldehydes or lactic, pyruvic or acetic acids may also be formed.

Hazardous Reactions: Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Propylene glycol exposure occurs primarily through ingestion of food and medications and through dermal contact with cosmetics or topical medications.

Toxicity Data: Acute Oral Toxicity, Rat, LD50: 20g/kg; Acute Dermal Toxicity, Rabbit, LD50: 20.8g/kg; Acute Inhalation Toxicity, LC50: No Data available.

SECTION 12: ECOLOGICAL INFORMATION

Readily biodegradable. If product enters soil, it will be highly mobile and may contaminate groundwater. Avoid contaminating waterways, drains and sewers. Does not bioaccumulate significantly.

Ecotoxicity Data: Fish (*Oncorhynchus mykiss)* 96h, LC50: 51400 mg/L. Crustacean *(Daphnia magna)* 48h LC50: 43500 mg/L. Algae, 72 or 96h EC50: No data.

SECTION 13: DISPOSAL CONSIDERATIONS

Recycle wherever possible. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill. Containers may still present a chemical hazard/danger when empty. If a container cannot be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, and then puncture containers, to prevent re-use, and bury at an authorised landfill. Contact appropriate Waste Management Company for guidance and disposal options in your area. Where possible retain label warnings and SDS and observe all notices pertaining to the product.

SECTION 14: TRANSPORT INFORMATION

NOT REGULATED FOR THE TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG
Not classified as Dangerous Good under NZS 5433:2007 Transport of Dangerous Goods on Land.

SECTION 15: REGULATORY INFORMATION

HSNO Classifications: N/A

HSNO Approval Number: No Record or Non-Hazardous

MPI Approved and Recognised for use in Farm Dairies. MPI Generic Approval 4.1.4

SECTION 16: OTHER INFORMATION

End of SDS.

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