



Material Safety Data Sheet

NR05363
PROPYLENE GLYCOL USP/EP

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Id: NR05363

Product Name: PROPYLENE GLYCOL USP/EP

Synonyms: None

Chemical Family: Aliphatic polyhydric alcohol / aliphatic dihydric alcohol / aliphatic diol / glycol

Application: Humectant and solvent for: Foodstuffs. Flavours. Fragrances. Cosmetics. Pharmaceuticals. Personal care applications. Not for use in cat food.

Distributed By:

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Prepared By: The Safety, Health and Environment Department of Univar Canada Ltd.

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percentage (W/W)	LD50s and LC50s Route & Species:
Propylene glycol 57-55-6	>99.8	Oral LD50 (Rat) = 20000 mg/kg Dermal LD50 (Rabbit) = 20800 mg/kg

Note: No additional remark.

3. HAZARDS IDENTIFICATION

Potential Acute Health Effects:

Eye Contact: May cause slight transient (temporary) eye irritation. Corneal injury is unlikely. Vapour or mist may cause eye irritation.

Skin Contact: Prolonged contact is essentially non irritating to skin. Repeated contact may cause flaking and softening of skin. Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Inhalation: At room temperature, exposure to vapor is minimal due to low volatility. Mist may irritate nose and throat.

Ingestion: Low toxicity. Small amounts swallowed incidental to normal handling operations are not likely to cause injury.

4. FIRST AID MEASURES

Eye Contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Skin Contact: Wash skin with plenty of water.

Inhalation: Remove to fresh air if effects occur. Consult a physician.

Ingestion: No first aid should be needed.

Notes to Physician: Treatment based on sound judgment of physician and individual reactions of patient.

5. FIRE FIGHTING MEASURES

Flash Point: 103 °C / 217.4 °F

Flash Point Method: Pensky-Martens Closed Cup

Autoignition Temperature: 400 °C / 752 °F

Flammable Limits in Air (%): Lower: 2.6% Upper: 12.5%

Extinguishing Media: Water fog or fine spray, carbon dioxide, dry chemical, foam. Alcohol resistant foams (ATC type) are preferred if available. General purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively. Do not use direct water stream, which will spread fire.

Special Exposure Hazards: Isolate and restrict area access. Use water spray to cool fire-exposed containers and structures. Fight fire from a safe distance and from a protected location. Consider use of unmanned hose holder or monitor nozzles. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from the end of tanks. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

Hazardous Decomposition/Combustion Materials (under fire conditions): Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide.

Special Protective Equipment: Fire fighters should wear full protective clothing, including self-contained breathing equipment.

NFPA RATINGS FOR THIS PRODUCT ARE: HEALTH 0, FLAMMABILITY 1, INSTABILITY 0

HMIS RATINGS FOR THIS PRODUCT ARE: HEALTH 0, FLAMMABILITY 1, REACTIVITY 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Wear appropriate protective equipment.

Environmental Precautionary Measures: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Consult local authorities.

Procedure for Clean Up: Isolate hazard area and restrict access. Contain spilled material if possible. Large spills or leaks should be confined by diking. Pump spilled material into suitable containers for removal. Flush area with water, contain and remove cleanup liquid. Small amounts of spilled liquid may be absorbed using appropriate absorbent material. Spilled material may cause floors and contact surfaces to become slippery.

7. HANDLING AND STORAGE

Handling: Product shipped/handled hot can cause thermal burns. Product handled hot may require additional ventilation or local exhaust. Spills of these organic liquids on hot fibrous insulations may lead to lowering of the autoignition temperature possibly resulting in spontaneous combustion.

Storage: Store in a cool dry place. Keep away from direct sunlight or strong incandescent light. Keep containers tightly closed. Protect against moisture. Store in the following material(s): Stainless steel. Aluminum. Plaste 3066 lined container. 316 stainless steel. Opaque HDPE plastic container. Product has a shelf life of 24 months. The maximum storage temperature is 40°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration. In misty atmospheres, use an approved organic vapor respirator in combination with a dust/mist filter. Organic vapour cartridge with a particulate pre-filter.

Gloves:

Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized.

Skin Protection: Normal work coveralls.

Eyes: Safety glasses or goggles.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

Ingredients	Exposure Limit - ACGIH	Exposure Limit - OSHA	Immediately Dangerous to Life or Health - IDLH
Propylene glycol	Not available.	Not available.	Not Available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.

Colour: Colourless.

Odour: Odourless

pH Not Available.

Specific Gravity: 1.04 @ 20°C

Boiling Point: 187.4°C /369.32°F

Freezing/Melting Point: <-57 °C / <-70 °F (Pour point)

Vapour Pressure: 0.3 mbar @ 25°C

Vapour Density: 2.62

% Volatile by Volume: Not Available.

Evaporation Rate: 0.01

Solubility: 100%

VOCs: Not Available.

Viscosity: 48.6 mPs @ 25°C

Molecular Weight: Not Available.

Other: Not Available.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Hygroscopic (absorbs moisture from the air). Product can decompose at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems. Avoid direct sunlight or ultraviolet sources.

Materials to Avoid: Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: Hazardous decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes. Alcohols. Ethers. Organic acids.

Additional Information:

No additional remark.

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Ingestion: Low toxicity. Small amounts swallowed incidental to normal handling operations are not likely to cause injury.

Skin Contact: Prolonged contact is essentially non irritating to skin. Repeated contact may cause flaking and softening of skin. Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Inhalation: At room temperature, exposure to vapor is minimal due to low volatility. Mist may irritate nose and throat.

11. TOXICOLOGICAL INFORMATION

Eye Contact: May cause slight transient (temporary) eye irritation. Corneal injury is unlikely. Vapour or mist may cause eye irritation.

Additional Information: In rare cases, repeated excessive exposure to propylene glycol may cause central nervous system effects.

Acute Test of Product:

Acute Oral LD50: Not Available.

Acute Dermal LD50: Not Available.

Acute Inhalation LC50: Not Available.

Carcinogenicity:

Ingredients	IARC - Carcinogens	ACGIH - Carcinogens
Propylene glycol	Not listed.	Not listed.

Carcinogenicity Comment: Did not cause cancer in laboratory animals.

Reproductive Toxicity/ Teratogenicity/ Embryotoxicity/ Mutagenicity: Did not cause birth defects or any other fetal effects in laboratory animals. No interference with reproduction has been shown in animal studies. In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

Ingredients	Ecotoxicity - Fish Species Data	Acute Crustaceans Toxicity:	Ecotoxicity - Freshwater Algae Data
Propylene glycol	LC50 (Pimephales promelas) 51400 mg/L LC50 (Oncorhynchus mykiss) 51600 mg/L	Not Available.	EC50 (Selenastrum capricornutum) 19000 mg/L

Other Information:

Ecotoxicity: Material is practically non-toxic to aquatic organisms on an acute basis (LC50 or EC50 >100 mg/L in the most sensitive species tested).

Material is readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Disposal of Waste Method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.

Contaminated Packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORT INFORMATION

DOT (U.S.):

DOT Shipping Name: Not Regulated.

DOT Hazardous Class: Not Applicable.

DOT UN Number: Not Applicable.

DOT Packing Group: Not Applicable.

DOT Reportable Quantity (lbs): Not Available.

Note: No additional remark.

Marine Pollutant: No.

TDG (Canada):

TDG Shipping Name: Not Regulated.

Hazard Class: Not Applicable.

14. TRANSPORT INFORMATION

UN Number: Not Applicable.

Packing Group: Not Applicable.

Note: No additional remark.

Marine Pollutant: No.

15. REGULATORY INFORMATION

U.S. TSCA Inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

Note: Not available.

U.S. Regulatory Rules

Ingredients	CERCLA/SARA - Section 302:	SARA (311, 312) Hazard Class:	CERCLA/SARA - Section 313:
Propylene glycol	Not Listed.	Not Listed.	Not Listed.

California Proposition 65: Not Listed.

MA Right to Know List: Not Listed.

New Jersey Right-to-Know List: Listed.

Pennsylvania Right to Know List: Listed.

WHMIS Hazardous Class:

NON-CONTROLLED

16. OTHER INFORMATION

Additional Information:

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Disclaimer:

NOTICE TO READER:

Univar, expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this MSDS as a product specification. For product specification information refer to a Product Specification Sheet and/or a Certificate of Analysis. These can be obtained from your local Univar Sales Office.

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*****END OF MSDS*****