# Safety Data Sheet - GHS
# Propylene Glycol, Food Grade

Date of Revision: April 1, 2025

## Section 1 - Chemical Product and Company Identification

| | |
|---|---|
| **Product Name** | Propylene Glycol, Food Grade |
| **Synonyms** | Propylene glycol, USP Grade; 1,2-Propanediol;Propane-1,2-diol; PG, Food Grade Propylene Glycol |
| **Product Use** | Industrial Heat Transfer Fluid |
| **Restrictions On Use** | Not Applicable |
| **Supplier** | CFR Chemicals<br>38451 Range Road 22<br>County of Red Deer T4E 2N6 |
| **General Assistance** | 1 (877) 269-3419 |
| **Emergency Telephone** | **Not Dangerous Goods – Call General Assistance** |
| **Date of Preparation of SDS** | **April 1, 2017** |

## Section 2 – Hazard Identification

| | |
|---|---|
| **Signal Word** | Warning |
| **GHS Pictogram(s)** | None |
| Hazard Statement | No Statements |
| Precautionary Statement | No Statements |
| Prevention | No Statements |
| Response | No Statements |
| Storage | No Statements |
| Disposal | No Statements |
| **GHS Classification** | None |

**HMIS Classification**

| | |
|---|---|
| **Health Hazard** | **0** |
| **Chronic Health Hazard** | ***** |
| **Flammability** | **1** |
| **Physical Hazards** | **0** |

**Potential Health Effects**

| | |
|---|---|
| **Inhalation** | May be harmful if inhaled. May cause respiratory tract irritation. |
| **Ingestion** | Harmful if swallowed. |
| **Skin** | Harmful if absorbed through the skin. May cause skin irritation. |
| **Eye** | May cause eye irritation. |

## Section 3 – Composition Information on Ingredients

| HAZARDOUS INGREDIENT, Common Name | Hazardous Ingredient, Synonyms | PERCENT | CAS NUMBER |
|---|---|---|---|
| Propylene Glycol | Propylene glycol; 1,2-Propanediol;Propane-1,2- | 100% | 57-55-6 |

diol; PG

* = Various ** = Mixture *** = Proprietary

**Chemical Formula** $C_3H_8O_2$

## Section 4 - First Aid Measures

**Inhalation** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Eye Contact** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Skin Contact** Wash off with plenty of water. Consult a physician.

**Ingestion** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most Important Symptoms/Effects both Acute and Delayed**

Not expected to present a significant hazard under anticipated conditions of normal use.

**Note to Physician** No specific antidote. Treatment of exposure should be directed at the control of the symptoms and the clinical condition of the patient.

## Section 5 – Fire-Fighting Measures

**Flash Point (°C)** 103°C

**Flash Point Method** PMCC

**Auto Ignition Temperature** 415°C

**Conditions of Flammability** Not flammable or combustible.

**Extinguishing Media** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable Extinguishing Media** Water jet.

**Unusual Fire/ Explosion Hazard** No data available.

**Hazardous Combustion Products** Carbon oxides.

**Fire Fighting Equipment** Wear appropriate protective equipment and self-contained breathing apparatus with a full face-piece operated in positive pressure mode.

**Special Precautions for Firefighters** Do not enter fire area without proper protective equipment, including respiratory protection.

## Section 6 – Accidental Release Measures

**Personal precautions** Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapour can accumulate in low areas.

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| **Environmental precautions** | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. |
| **Methods and materials for containment and cleaning up** | Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. |

## Section 7 – Handling and Storage

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| **Precautions for safe handling** | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. |
| **Conditions for safe storage** | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Hygroscopic. |
| **Incompatible Materials** | Strong acids, Strong bases, Sources of ignition, Direct sunlight. |

## Section 8 – Exposure Controls / Personal Protection

**Occupational Exposure Limits**

| **Ingredient Name** | **Exposure Limits** |
|---|---|
| Propylene Glycol | **Canada, Alberta OHSC Code**<br>200mg/m$^3$<br>**ACGIH TLV**<br>TLV: 100mg/m$^3$ |

**Personal protective equipment**

| | |
|---|---|
| **Eye/face protection** | Chemical safety glasses with side shields to prevent eye contact. As a general rule do not wear contact lenses when handling chemicals. If contact is possible, the following protection should be worn: Splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If inhalation hazards exist, a full-face respiratory may be required instead. |
| **Skin protection** | Wear chemical resistant gloves, impermeable protective clothing and safety shoes. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| **Respiratory protection** | Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. |
| **General hygiene Considerations** | Handle in accordance with good industrial hygiene and safety. Eye wash fountains and safety showers must be easily accessible. |
| **Specific engineering controls** | Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Use explosion-proof ventilation equipment. |

## Section 9 – Physical and Chemical Properties

| | | | |
|---|---|---|---|
| **Physical State** | Liquid | **Water Solubility** | miscible |
| **Appearance & Odour** | Clear, colourless. Odourless. | **Boiling Point** | 187°C |
| **Vapour Pressure** | 0.011 hPa (20.0°C) | **Boiling Point Range** | Not applicable |
| **Vapour Density** | 2.6 (Air = 1) | **Melting Point** | -60°C |
| **Specific Gravity** | 1.0362 | **Freezing Point** | -60°C |
| **Partition coefficient (n-octonal/water)** | Not available. | **Lower Explosive Limit (LEL)** | 2.6 % |
| **pH** | 7 – 7.2 Neat | **Upper Explosive Limit (UEL)** | 12.6 % |
| **Flashpoint (Method)** | Not flammable | **Auto Ignition temperature** | 415°C |
| **Odour Threshold** | Not available. | **Evaporation Rate** | Not available. |
| **Flammability (Solid, Gas)** | Not available. | | |
| **Decomposition Temperature** | Not available. | **Viscosity** | Not available. |

## Section 10 – Stability and Reactivity

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| **Reactivity** | No specific test data related to reactivity available for this product. |
| **Chemical stability** | Stable under recommended storage conditions. |
| **Possibility of hazardous reactions** | No data available. |
| **Conditions to avoid** | Sources of ignition, Direct sunlight |
| **Materials to avoid** | Acid chlorides, Acid anhydrides, Oxidizing agents, Chloroformates, Reducing agents |
| **Hazardous decomposition products** | Carbon oxides. |

## Section 11- Toxicological Information

**Information on Likely Routes of Exposure**

**Inhalation:**

May be harmful if inhaled. May cause respiratory tract irritation.

**Skin contact**

Harmful if absorbed through the skin. May cause skin irritation.

**Eye contact**

May cause eye irritation.

**Ingestion**

May be harmful if swallowed.

**Acute and Chronic Toxicity**

May be harmful if swallowed.

**Acute toxicity**

| Product/Ingredient Name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Propylene Glycol | LD50 Oral | Rat | 20000mg/kg | - |
| | LD50 Dermal | Rabbit | 20800mg/kg | - |

**Skin corrosion/irritation** Not classified.
**Serious eye damage/ Eye irritation**
Not classified.
**Respiratory or skin sensitization**
Not classified.
**Mutagenicity** Not classified.
**Carcinogenicity**
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
**Reproductive toxicity** Not classified.
**Teratogenicity** Not classified.
**Specific target organ toxicity - single exposure (Globally Harmonized System)**
Not classified.
**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**
Not classified.
**Aspiration hazard** Not classified.
**Delayed and Immediate Effects and also Chronic Effects from Short and Long Term Exposure**
**Short Term Exposure**
**Potential immediate Health Effects** No data available**.**
**Potential Delayed Health Effects** No data available.
**Long Term Exposure**
**Potential immediate Health Effects** No data available**.**
**Potential Delayed Health Effects** No data available.
**Potential Chronic Effects** No data available.
**Synergistic effects** No data available

## Section 12 – Ecological Information

**Toxicity**

| Product / Ingredient Name | Result | Species | Exposure |
|---|---|---|---|
| Propylene Glycol | LC50 52930mg/L | Fish – Pimephales promelas | 96 Hr |
| | EC50 >10000mg/L | Daphnia – Daphnia magna | 24 Hr |

**Persistence and degradability** Biodegrades readily and rapidly in the presence of oxygen; 55-57% in 5 days, 78-84% in 20 days; also 99% in 1-2 days (2 tests) **– rapid biodegradation means Chronic Aquatic Toxicity testing not required**
**Bioaccumulative potential** Does not bioaccumulate.
**Mobility in soil** Water soluble; moves readily in soil and water.
**PBT and vPvB assessment** No data available

## Section 13 – Disposal Considerations

**Product**

Do not discharge substance/product into sewer system. Dispose of in accordance with national, regional, and local regulations.

**Contaminated packaging**

Dispose of as unused product in a licensed facility. Recommend crushing, puncturing, or other means to prevent unauthorized use of used containers. Do not cut, weld, or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled materials and runoff and contain with soil, waterways, drains, and sewers.

## Section 14 - Transportation Information

CANADA Transportation of Dangerous Goods (TDG)
**Not Dangerous Goods**

## Section 15 – Regulatory Information

**DSL (Canadian Domestic Substances List)**
**and CEPA (Canadian Environmental Protection Act)**

All components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

**TSCA Inventory** All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.

## Section 16 – Other Information

REVISION SUMMARY:

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|---|---|
| Date of Preparation | April 1, 2017 |
| Date of Revision | April 1, 2025 |

SDS Prepared by: CFR Lab Manager

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