

SECTION 1: IDENTIFICATION

1.1 Product Identifier

Product Name:	Propylene Glycol 100%
Product Code:	Not Available
Other Means of Identification:	None Known
Synonyms:	None Known

1.2 Relevant Identified Uses of The Substance or Mixture and Uses Advised Against

Recommended Use:	Industrial Use: Manufacture of antifreeze, unsaturated polyester resins, functional fluids, paints & coatings and plasticizers
Recommended Use Restrictions:	Uses other than those recommended above.

1.3 Details of The Supplier of The Safety Data Sheet

Company Name:	Novamen Inc.
Company Address:	111A, 4818 - 50th Avenue Red Deer, AB T4N 4A3
Company Telephone:	403-348-5956

1.4 Emergency Telephone Number

CANUTEC (24-hour):	1-613-996-6666
Chemtrec (24-hour):	1-800-424-9300

SECTION 2 – HAZARDS IDENTIFICATION

2.1 Classification of The Substance or Mixture

Classification:	This material is not classified as hazardous under Canadian Hazardous Products Regulations (HPR) (WHMIS 2015).
Physical Hazards:	None
Health Hazards:	None
Environmental Hazards:	Not adopted under WHMIS 2015.
PHNOC (Physical Hazards Not Otherwise Classified):	None Known
HHNOC (Health Hazards Not Otherwise Classified):	None Known

2.2 Label Elements

Hazard Symbol(s):	Not Applicable
Signal Word:	Not Applicable
Hazard Statement(s):	Not Applicable

Precautionary Phrases:

Prevention:	Not Applicable
Response:	Not Applicable
Storage:	Not Applicable
Disposal:	Not Applicable

2.3 Other Hazards

None Known

2.4 Unknown Acute Toxicity

None Known

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substance**

Not Applicable

3.2 Mixture

Ingredient	CAS number	Concentration (Wt.%)
Propylene Glycol	57-55-6	>99

SECTION 4 – FIRST AID MEASURES**4.1 Description of First-Aid Measures****General:**

If you feel unwell, seek medical advice (show the label where possible).

After Inhalation:

IF INHALED: move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration. Obtain medical attention if symptoms develop and persist.

After Skin Contact:

IF ON SKIN: Wash off immediately with plenty of water. Remove and wash contaminated clothing before re-use. If irritation or symptoms develop, seek medical attention.

After Eye Contact:

IF IN EYES: Immediately flush eyes with running water for at least 5 to 10 minutes. If irritation persists, seek prompt medical attention.

After Ingestion:

IF SWALLOWED: Do NOT induce vomiting. Have victim rinse mouth with water, then give one to two glasses of water to drink. Never give anything by mouth to an unconscious person. Call a physician

4.2 Most Important Symptoms and Effects, Both Acute and Delayed**Acute Effects/Symptoms:****Inhalation:**

If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory tract. Symptoms include: cough, breathing difficulties, and irritation/inflammation of the mucous membranes lining the respiratory tract. Over-Exposure to high concentrations may cause breathing difficulties, headache, dizziness, fatigue, nausea and vomiting.

Skin Contact:

May cause mild skin irritation. Symptoms may include mild redness and inflammation.

Eye Contact:

May cause mild eye irritation. Symptoms include: redness, inflammation, tearing and itching.

Ingestion:

May cause mild gastric irritation. Symptoms include: nausea/vomiting and diarrhea.

Delayed Effects/Symptoms:

No significant effects (delayed) anticipated.

Effects of Chronic Exposure:

Prolonged or repeated contact may cause drying, cracking and defatting of the skin.

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

If experiencing adverse symptoms after extreme exposures: Seek immediate medical attention.

Notes to Physician:

Treat symptomatically.

SECTION 5 – FIRE-FIGHTING MEASURES

5.1 Extinguishing Media**Suitable Extinguishing Media:**

Water spray, foam, dry chemical or carbon dioxide is recommended.

Unsuitable Extinguishing Media:

Do NOT use water jet.

5.2 Specific Hazards Arising from the Substance or Mixture**Special Fire Hazards:**

At temperatures in excess of 99 °C explosive air/vapour may be formed. Vapours are heavier than air and can accumulate in low areas. During a fire, toxic and irritating gases and vapours will be released including: Carbon monoxide and Carbon dioxide.

Hazardous Combustion Products:

Carbon monoxide and Carbon dioxide.

5.3 Advice for Firefighters**Firefighting Instructions:**

Fire-fighters should wear self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode and full protective gear. Promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. During a fire, toxic and irritating gases and vapours will be released including: Carbon monoxide and Carbon dioxide.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Ventilate area. Remove all sources of ignition. Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Wear appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing. Do not breathe dust/mist/vapours/spray/aerosols. Do not walk through spilled material.

6.2 Environmental Precautions

Prevent entry into waterways, sewer, basements or confined areas.

6.3 Methods and Material for Containment and Cleanup

For Containment:

Stop spill or leak at source if safely possible. Dike for water control. Use only non-sparking tools and equipment in the clean-up process. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13).

Methods for Cleaning Up:

Wipe up with absorbent material (for example cloth). Thoroughly decontaminate area after spill cleanup.

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Precautions for Safe Handling:

Use only in well-ventilated areas. Wear recommended personal protective equipment (see Section 8). Keep away from heat, hot surfaces, spark, open flames, and other ignition sources. Avoid contact with eyes, skin and clothing. Avoid breathing mist/vapour/spray. Avoid generation of aerosol and mist. Do not ingest. Wash thoroughly after handling. Keep container tightly closed when not in use. Keep away from incompatible materials.

Hygiene Measures:

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions:

Store in original container protected from direct sunlight in a dry, cool and well-ventilated area. Store away from incompatible materials (see Section 10). Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

Incompatible Materials:

Strong Oxidizing Agent. Strong acids. Isocyanates. Reducing Agents. Alkalis.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Ingredient Occupational Exposure Limits:

Propylene Glycol (57-55-6)		
Canada - Ontario	OEL - TWA	50 ppm (155 mg/m ³) [8 hr.] (total vapour & particulates)
		10 mg/m ³ (1)

(1) For assessing the visibility in a work environment where 1,2-propylene glycol aerosol is present.

8.2 Exposure Controls

Appropriate Engineering Controls:

Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable,

Propylene Glycol 100%

Canada – According to the Hazardous Products Regulations (HPR) (WHMIS 2015).
Last Updated: December 10, 2018 | Revision: 5 (Supersedes June 6, 2018)

use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment:

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hand Protection:

Gloves impervious to the material are recommended. Advice should be sought from glove supplier. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Ensure that glove material is compatible with this product.

Skin and Body Protection:

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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Impervious apron.

Respiratory Protection:

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Advice should be sought from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Appearance	Liquid
Physical State:	Clear, Colourless Liquid
Colour:	Colourless
Odour:	None to mild
Odour Threshold:	Not available
pH:	7.0
Melting Point/Freezing Point:	-42°C
Initial Boiling Point and Boiling Range:	186°C
Flash Point:	> 99°C (210.2°F)
Evaporation Rate:	Not available
Flammability (Solid, Gas):	Not applicable
Upper/Lower Flammability or Explosive Limits	
Flammability Limit – Lower (%):	Not available
Flammability Limit – Upper (%):	Not available
Explosive Limit – Lower (%):	Not available
Explosive Limit – Upper (%):	Not available
Vapour Pressure:	10 mm Hg @ 20°C
Vapour Density (Air=1):	1.6 @ 15 °C
Specific Gravity:	1.038 @ 20 °C

Solubility(ies):	Soluble in water
Partition Coefficient (n-Octanol/Water):	Not available
Auto-Ignition Temperature:	Not available
Decomposition Temperature:	Not available
Viscosity @ 20°C:	Not available

9.2 Other Information

No additional information available

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity

Not reactive under recommended storage and handling conditions.

10.2 Chemical Stability

Stable under recommended storage and handling conditions. Hygroscopic: absorbs moisture or water from the air.

10.3 Possibility of Hazardous Reactions

No hazardous reactions anticipated under recommended storage and handling conditions.

10.4 Conditions to Avoid

Extreme heat. Open flame. Ignition sources. Incompatible materials. Moisture or Water.

10.5 Incompatible Materials

Strong Oxidizing Agents. Strong acids. Isocyanates. Reducing Agents. Alkalis.

10.6 Hazardous Decomposition Products

During a fire, toxic, corrosive and irritating gases and vapours will be released including: Carbon Monoxide and Carbon Dioxide.

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Principle Routes of Exposure:

Ingestion; Inhalation; Skin Contact; Eye Contact

Target Organs:

Skin; Eyes; Respiratory System

11.2 Symptoms Related to The Physical, Chemical and Toxicological Characteristics

Most Important Symptoms/Effects, Acute and Delayed:

Acute Effects/Symptoms:

Inhalation:

If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory tract. Symptoms include: cough, breathing difficulties and irritation/inflammation of the mucous membranes lining the respiratory tract. Over-exposure to high concentrations may cause breathing difficulties, headache, dizziness, fatigue, nausea and vomiting.

Skin Contact:

May cause mild skin irritation. Symptoms may include mild redness and inflammation.

Eye Contact:

May cause mild eye irritation. Symptoms include: redness, inflammation, tearing and itching.

Ingestion:

May cause mild gastric irritation. Symptoms include: nausea/vomiting and diarrhea.

Delayed Effects/Symptoms:

No significant effects (delayed) anticipated.

Effects of Chronic Exposure:

Prolonged or repeated contact may cause drying, cracking and defatting of the skin

Delayed and Immediate Effects and Chronic Effects from Short or Long-Term Exposure:**Acute Toxicity:**

Does not meet the criteria for classification as Acutely Toxic (Oral, Dermal or Inhalation).

Skin Corrosion/Irritation:

Does not meet the criteria for classification.

Serious Eye Damage/Irritation:

Does not meet the criteria for classification.

Skin Sensitization:

Does not meet the criteria for classification.

Respiratory Sensitization:

Does not meet the criteria for classification.

Germ Cell Mutagenicity:

Does not meet the criteria for classification.

Carcinogenicity:

Does not meet the criteria for classification.

Reproductive Toxicity:

Does not meet the criteria for classification.

Specific Target Organ Toxicity (Single Exposure):

Does not meet the criteria for classification.

Specific Target Organ Toxicity (Repeated Exposure):

Does not meet the criteria for classification.

Aspiration Hazard:

Does not meet the criteria for classification.

Toxicity Data (Numerical Values such as Acute Toxicity Data and Irritation Studies):

Propylene Glycol (57-55-6)	
LD50 Oral (Rat)	20,000mg/kg
LD50 Dermal (Rat)	21,800 mg/kg
LC50 Inhalation (Rat)	>158 mg/L (4 hr.)

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Ecotoxicity (Aquatic and Terrestrial, Where Available)

No data on this product.

Ingredient Data:

Propylene Glycol (57-55-6)	
LC50 Fish:	46,500 mg/L – Fathead Minnow/96 hr.
EC50 Daphnia:	43,500 mg/L – Daphnia magna/48 hr.
EC50 Algae:	19,000 mg/L – Green Algae/96 hr. or 72 hr.

12.2 Persistence and Degradability

Readily biodegradable.

12.3 Bio Accumulative Potential

No significant bio accumulation.

12.4 Mobility in Soil

If product enters soil, it will be highly mobile and may contaminate groundwater. Dissolves in water.

12.5 Results of PBT and vPvB Assessment

No data available.

12.6 Other Adverse Effects

No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Handling for Disposal:

Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.

Methods of Disposal:

Dispose of in accordance with all applicable federal, state, provincial and local regulations.

Empty Container Warning:

Contaminated packaging may contain traces of the product and therefore should be disposed of in the same way as product.

SECTION 14 – TRANSPORT INFORMATION

14.1 Transport Information

TDG:	Not Regulated for Transport
DOT:	Not Regulated for Transport
IMDG (Maritime Transport):	Not Regulated for Transport
IATA (Air Transport):	Not Regulated for Transport

14.2 Environmental Hazards

Marine pollutant:

No

14.3 Special Precautions for Users

No additional information.

14.4 Additional Information

No additional information.

14.5 Transport in Bulk According to Annex II of MARPOL and the IBC Code

Not Applicable.

SECTION 15 – REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for The Substance/Mixture

The regulatory data in this section is not intended to be all-inclusive, only selected regulations are represented

CANADA - Federal Regulations

WHMIS 2015:

This product is not hazardous according to the criteria set forth under the Canadian Hazardous Products Regulations (HPR) – WHMIS 2015.

DSL / NDSL (Domestic Substances List / Non-Domestic Substances List):

Components of this product identified by CAS number are listed on the DSL and NDSL or are otherwise in compliance with the New Substances Notification (NSN) regulations. Only ingredients classified as “hazardous” are listed in Section 2 unless otherwise indicated.

US - Federal Regulations

OSHA:

Not hazardous according to OSHA HCS (HAZCOM 2012).

TSCA:

All product ingredients are listed on or exempt from the TSCA inventory.

SARA (Superfund Amendments and Reauthorization Act):

CERCLA RQ (lbs.) Ingredients (>0.1%):

No product ingredients listed.

EPCRA 302 Extremely Hazardous (>0.1%):

No product ingredients listed.

EPCRA 313 Toxic Chemicals (>0.1%):

No product ingredients listed.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out on this product.

SECTION 16 – OTHER INFORMATION

SDS Prepared by:	Novamen HSE Department
Revision Number:	5 (Supersedes June 6, 2018)
Revision Date:	December 10, 2018
Original Preparation Date:	August 11, 2014
Reason for Revision:	Compliance with GHS and WHMIS 2015.

Disclaimer:

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.