SAFETY DATA SHEET

Issuing Date **August 12, 2021** **Revision date** August 12, 2021 **Revision Number** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name Propylene Glycol

Other means of identification

Product Code(s) GHSRBS-111

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Humectant and solvent for: Food. Flavors. Perfume. Cosmetics. Pharmaceutical industry. Body care applications. Do not use in cat food.

Restrictions on use No information available

Restrictions on Use None known.

Details of the supplier of the safety data sheet

Initial supplier identifier	**Supplier Address**
BOSS Lubricants	6303 30 ST SE Calgary, AB T2C 1R4

Emergency telephone number

Initial supplier phone number **(**800) 844-9457

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARD IDENTIFICATION

Classification

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS) Not a hazardous substance or mixture according to Canada's Hazardous Product Regulations.

Label elements

Hazard pictograms None

Hazard statements The mixture does not meet the criteria for classification.

Prevention Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection

Storage Store locked up

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

Unknown acute toxicity: No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Propylene glycol	57-55-6	90 - 100%	-	NA

4. FIRST AID

Description of first aid measures

Inhalation If unconscious, remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. If eye irritation persists, consult a physician.

Skin contact Wash skin with soap and water.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed Low toxicity. May cause slight transient (temporary) eye irritation. Corneal injury is unlikely. At room temperature, exposure to vapor is minimal due to low volatility. Small amounts swallowed incidental to normal handling operations are not likely to cause injury. Mist may irritate nose and throat. Vapor or mist may cause eye irritation. 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.

Indication of any immediate medical attention and special treatment needed:

Note to physicians Treatment based on sound judgment of physician and individual reactions of patient.

5. FIRE-FIGHTING MEASURES

Suitable 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.

Specific hazards arising from the substance or mixture No data available.

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

Special protective equipment for firefighters No data available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. See section 8 for more information.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Keep out of drains, sewers, ditches and waterways.

Ventilate the area. Avoid breathing vapors or mists.

Methods for cleaning up Cover liquid spill with sand, earth or other non-combustible absorbent material. Prevent product from entering drains.

7. HANDLING AND STORAGE

Precautions for safe handling

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

Conditions for safe storage, including any incompatibilities

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits None of the components have assigned exposure limits.

Appropriate engineering controls No data available.

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Eye/face protection Wear goggles/face shield.

Skin protection

Hand protection Chemical resistant gloves

Other Chemical resistant clothing

Respiratory protection In case of inadequate ventilation use suitable respirator.

Hygiene measures Wash thoroughly after handling. When using do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Viscous
Color	Colorless
Odor	Odorless
Odor threshold	No information available

Property	Values	Remarks • Method
pH	No data available	None known
Melting point / freezing point	-60ºC to -20°C / -76ºF to -4°F	EC METHOD A
Boiling point / boiling range	184°C / 363.2°F	ASTM D7213
Flash point	104 °C / 219.2 °F	ASTM D93
Evaporation rate	<0.02	Estimated
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	17.4%	
Lower flammability or explosive limits	2.4%	
Vapor pressure	20 Pa @ 25°C	None known
Vapor density	No data available	None known
Relative density	2.62 @15°C	ASTM D1298
Water solubility	1000 (RBT)	None known
Solubility in other solvents	No data available	None known
Partition coefficient	-1.07	None known
Autoignition temperature	>400 °C / >752 °F	ASTM E659
Decomposition temperature	No data available	None known
Kinematic viscosity	48.6 mPs @ 25°C	None known
Dynamic viscosity	43.4 mPa @ 25°C	None known

Other information

Explosive properties	No information available.
Oxidizing properties	No information available.
Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	1.03 g/cm3 @ 20°C

10. STABILITY AND REACTIVITY

Reactivity	Stable.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No additional remark.
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.

Incompatible materials Strong oxidizers. Strong bases. Strong acids.

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

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

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

Eye contact May cause slight transient (temporary) eye irritation. Corneal injury is unlikely. Vapor 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.

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

Information on toxicological effects

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

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

ATE mix (oral) 20,040.00 mg/kg

ATE mix (dermal) 20,842.00 mg/kg

Unknown acute toxicity No information available

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Propylene glycol 57-55-6	= 20 g/kg (Rat)	= 20800 mg/kg (Rabbit)	Not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation 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.

Serious eye damage/eye irritation May cause slight transient (temporary) eye irritation. Corneal injury is unlikely. Vapor or mist may cause eye irritation.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity Did not cause cancer in laboratory animals.

Chemical Name	ACGIH	IARC	NTP	OSHA
Propylene glycol 57-55-6	Not available	Not available	Not available	Not available

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

Specific target organ systemic toxicity

Single exposure No information available.

Repeated exposure No information available.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Ecotoxicity – Freshwater Algae Data	Ecotoxicity – Fish Species Data	Toxicity to microorganisms	Crustacea
Propylene glycol 57-55-6	19000 mg/L EC50 Pseudokirchneriella subcapitata 96 h	51600 mg/L LC50 (Oncorhynchus mykiss) 96 h static 41 – 47 mL/L LC50 (Oncorhynchus mykiss) 96 h static 51400 mg/L LC50 (Pimephales promelas) 96 h static 710 mg/L LC50 (Pimephales promelas) 96 h available.	Not available	EC50: >1000mg/L (48h, Daphnia magna)

Persistence and degradability No information

Bioaccumulation : No information available.

Chemical Name

Propylene Glycol 57-55-6

Partition coefficient: Not available

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Do not reuse empty containers.

14. TRANSPORT INFORMATION

Transport Canada Not regulated

TDG Not regulated

DOT Not regulated

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA	Complies.
DSL/NDSL	Complies.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AICS	Contact supplier for inventory compliance status.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION

NFPA	**Health hazards** 0	**Flammability** 1	**Instability** 0	**Physical and chemical properties** -
HMIS	**Health hazards** 0	**Flammability** 1	**Physical hazards** 0	**Personal protection** X

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

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Revision Note	No information available.

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet

Data for Regulatory Rules

Region	Template name	Revision Note
Canada	HGHS	2.0

GHS Product Information	
Physical state	Liquid
Flash point °C	104
Boiling point / boiling range °C	184

Component Information

Canada

GHS Classification

Not Hazardous	Not a hazardous substance or mixture according to the Globally Harmonized System (GHS) Not a hazardous substance or mixture according to Canada's Hazardous Product Regulations.
Signal word	None
Precautionary Statements - Disposal	Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable