SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name:	Propylene Glycol
CAS number:	57-55-6
Synonyms:	1,2-Propanediol; 1,2-Dihydroxypropane; Methyl Glycol (USP/FCC)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Uses : Manufacturing and compounding.

1.3 Details of the supplier of the safety data sheet

Company : Lab Alley, LLC
12501 Paul's Valley Road Suite F
Austin, TX 78737
U.S.A.

Telephone : 512-668-9918
Fax : 512-886-4008

1.4 Emergency telephone

Emergency Phone # : US & Canada: 1-800-535-5053 INFOTRAC
International 1-352-323-3500 INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Specific target organ toxicity - single exposure (Category 3)
Target Organs - Central nervous system (CNS).
Specific target organ toxicity - repeated exposure (Category 2)
Target Organs - Kidney, spleen, blood.

2.2 GHS Label elements, including precautionary statements

Pictogram:

Signal Word: **Warning**

Hazard statement(s): May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement(s): **Prevention** - Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. **Response** - Get medical attention/advice if you feel unwell. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON Center or doctor/physician if you feel unwell. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified

None.

SECTION 3: Composition/information on ingredients

3.1 Components

Component	CAS Number	Percent
1,2-Propylene glycol	57-55-6	>95

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice: Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.

In case of inhalation: Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

In case of skin contact: Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

In case of ingestion: Do not induce vomiting. Obtain medical attention

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable (and unsuitable) extinguishing media

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

5.2 Specific hazards arising from the substance or mixture

Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

5.4 Further information

None.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

6.2 Environmental precautions

Should not be released into the environment. See Section 12 for additional ecological information.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

No additional information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition.

SECTION 8. Exposure controls/personal protection

8.1 Occupational exposure limits

Listed below for the product components that have regulatory occupational exposure limits (OEL's) established.

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
1,2-Propylene glycol			TWA: 10 mg/m^3 TWA: 50 ppm TWA: 155 mg/m^3

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Control of environmental exposure

Should not be released into the environment. See Section 12 for additional ecological information.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Viscous liquid.
Appearance	Clear
Odor	Odorless.
Odor Thresh	No information available.
pH	6-8 100g/l aq. solution
Melting Point/Range	-60 °C / -76 °F
Boiling Point/Range	187 °C / 368.6 °F
Flash Point	99 °C / 210.2 °F
Evaporation Rate	No information available.
Flammability (solid, gas)	Not applicable.
Flammability or explosive limit	
Upper	: 12.6%
Lower	: 2.6%

Vapor Pressure	0.13 mbar @ 20 °C
Vapor Density	2.62 (Air = 1.0)
Density	1.03-1.04
Solubility	Soluble in water.
Partition coefficient; n-octanol/water	No information available.
Autoignition Temp	400 °C / 752 °F
Decomposition Temp	No information available.
Viscosity	45 mPa.s at 20 °C
Molecular Formula	C3 H8 O2
Molecular Weight	76.10
VOC Content(%)	No information available.
Oxidizing properties	Not oxidizing.

9.2 Other safety information

None.

SECTION 10: Stability and reactivity

10.1 Reactivity

None known, based on information available.

10.2 Chemical stability

Hygroscopic.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Incompatible products. Excess heat. Exposure to moist air or water.

10.5 Incompatible materials

Strong oxidizing agents, Acids.

10.6 Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO2).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
1,2-Propylene glycol	20000 mg/kg (Rat)	20800 mg/kg (Rabbit)	Not listed

Skin corrosion/irritation

Irritation to skin.

Serious eye damage/eye irritation

Irritation to eyes.

Respiratory or skin sensitization

No information available.

Germ cell mutagenicity

Mutagenic effects have occurred in experimental animals.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
1,2-Propylene glycol	57-55-6	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity

Experiments have shown reproductive toxicity effects on laboratory animals.

Specific target organ toxicity - single exposure

Central nervous system (CNS)

Specific target organ toxicity - repeated exposure

Kidney spleen Blood.

Aspiration hazard

No information available.

Chronic effects

No information available.

11.2 Additional information

Tumorigenic effects have been reported in experimental animals. See actual entry in RTECS for complete information.

SECTION 12. Ecological information

12.1 Toxicity

Ecotoxicity:

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
1,2-Propylene glycol	19000 mg/L EC50 = 96 h	51400 mg/L LC50 96 h 41 -47 mL/L LC50 96 h 51600 mg/L LC50 96 h 710 mg/L LC50 96 h	= 710 mg/L EC50 Photobacterium phosphoreum 30 min	10000 mg/L EC50 > 24 h 1000 mg/L EC50 > 48 h

12.2 Persistence and Degradability

Miscible with water Persistence is unlikely based on information available.

12.3 Bioaccumulative Potential

No information available.

12.4 Mobility in Soil

Will likely be mobile in the environment due to its water solubility.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

Tumorigenic effects have been reported in experimental animals. See actual entry in RTECS for complete information.

SECTION 13. Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT

UN-No Not Regulated.
Proper Shipping Name
Hazard Class
Subsidiary Hazard Class
Packing Group

IATA

UN-No Not Regulated.
Proper Shipping Name
Hazard Class
Subsidiary Hazard Class
Packing Group

IMDG/IMO

UN-No Not Regulated.
Proper Shipping Name
Hazard Class
Subsidiary Hazard Class
Packing Group

TDG

UN-No Not Regulated.
Proper Shipping Name
Hazard Class Subsidiary
Hazard Class Packing Group

SECTION 15: Regulatory Information

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
1,2-Propylene glycol	X	X	-	200-338-0	-		X	X	X	X	X

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313 Not applicable

SARA 311/312 Hazardous Categorization

Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

Clean Water Act Not applicable

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration
Not applicable

CERCLA
Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
1,2-Propylene glycol	-	X	X	-	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade Slight risk, Grade 1

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

WHMIS Hazard Class D2B Toxic materials

SECTION 16: Other information

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Disclaimer:
The information provided on 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 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.