Safety Data Sheet

Propylene Glycol

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Propylene Glycol

Synonyms/Generic Names: 1,2,-propanediol; 1,2-dihydroxypropane

SDS Number: 599.00

Product Use: For Educational Use Only

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information Contact: Ward's Science
5100 West Henrietta Rd.
PO Box 92912-9012
Rochester, NY 14692
(800) 962-2660 (Monday-Friday 7:30-7:00 Eastern Time)

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: No Known OSHA Hazards

Target Organs: None

Signal Words: Warning

Pictograms: None

GHS Classification:

Skin irritation	Category 3
Eye irritation	Category 2B

GHS Label Elements, including precautionary statements:

Hazard Statements:

H316	Causes mild skin irritation
H320	Causes eye irritation

Precautionary Statements:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present. Continue rinsing.

Potential Health Effects

Eyes	May cause irritation
Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Ingestion	Harmful if ingested.

NFPA Ratings

Health hazard	0
Flammability	1
Reactivity hazard	0
Specific hazard	Not Available

HMIS Ratings

Health	1
Fire	1
Reactivity	0
Personal	H

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Propylene glycol	100	57-55-6	200-388-0	$C_3H_8O_2$	76.10 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention if necessary.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.
Skin	Flush with plenty of water and wash using soap. Get medical attention if necessary.
Ingestion	**Do Not Induce Vomiting!** Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

5. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Use appropriate media on adjacent fire. Cool unopened containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (carbon oxides) under fire conditions. (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to a federal/national or local reporting requirements
Methods and materials for containment and cleaning up	Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling
See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well ventilated area. The material is hygroscopic and light sensitive. Keep containers tightly closed. Keep away from heat. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Propane-1,2-diol	10 mg/m^3	WEEL	AIHA

TWA: Time Weighted Average over 8 hours of work.
TLV: Threshold Limit Value over 8 hours of work.
REL: Recommended Exposure Limit
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit during x minutes.
IDLH: Immediately Dangerous to Life or Health
WEEL: Workplace Environmental Exposure Levels
CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat.
Other	Not Available

Other Recommendations
Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Clear viscous liquid
Odor	Practically odorless
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	-59°C (-74.2°F)
Initial boiling point and boiling range	188°C (370.4°F)
Flash point	103°C (217°F)-closed cup
Evaporation rate	Not Available
Flammability (solid, gas)	May be flammable at high temperature.
Upper/lower flammability or explosive limit	2.6%-12.5%
Vapor pressure	0 hPa (@ 20°C) 0.08 mmHg @ 20°C
Vapor density	2.62

Relative density	1.036 g/cm^3
Solubility (ies)	Soluble in cold water, hot water, acetone.
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Not available
Conditions to Avoid	Excess heat, exposure to moist air or water.
Incompatible Materials	Oxidizing agents, acids, alkalis, chloroformates, caustics, aliphatic amines, isocyanates, acid anhydrides, silver nitrate, reducing agents.
Hazardous Decomposition Products	Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	LD50 Dermal – rabbit – 20,800 mg/kg
Eyes	Not Available
Respiratory	Not Available
Ingestion	LD50 Oral – rat – 20,000 mg/kg
Other	LD50 Intramuscular – rat – 14 g/kg LD50 Intravenous – dog – 26 g/kg LD50 Intraperitoneal – rat – 6,660 mg/kg LD50 Subcutaneous – rat – 22,500 mg/kg LD50 Intravenous – rat – 6,423 mg/kg LD50 Intraperitoneal – mouse – 9,718 mg/kg LD50 Subcutaneous – mouse – 17,370 mg/kg LD50 Intravenous – mouse – 6,630 mg/kg LD50 Intravenous – rabbit – 6,500 mg/kg

Carcinogenicity

IARC	No components 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 components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Mild irritation
Eyes	Mild irritation
Respiratory	Irritation to respiratory tract.
Ingestion	Gastrointestinal disturbance; nausea; headache; vomiting; central nervous system depression

Chronic Toxicity	May cause damage to central nervous system (CNS)
Teratogenicity	May cause adverse reproductive effects and birth defects.
Mutagenicity	May affect genetic material.
Embryotoxicity	Not Available

Specific Target Organ Toxicity	Not Available
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	Mortality NOEC – Pimephales promelas (fathead minnow) – 52,930 mg/l – 96 hours
Aquatic Invertebrate	Mortality NOEC – Daphnia magna (water flea) – 13,020 mg/l – 48 hours EC50 – Daphnia magna (water flea) - >10,000 mg/l – 48 hours
Terrestrial	Not available

Persistence and Degradability	Not available
Bioaccumulative Potential	Not available
Mobility in Soil	Not available
PBT and vPvB Assessment	Not available
Other Adverse Effects	Not available

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residues.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product containers.

14. TRANSPORT INFORMATION

US DOT	Not Dangerous Goods
TDG	Not Dangerous Goods
IDMG	Not Dangerous Goods
Marine Pollutant	No
IATA/ICAO	Not Dangerous Goods

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	No SARA Hazards
SARA 312	No SARA Hazards
SARA 313	Not Listed
WHMIS Canada	Not Listed

16. OTHER INFORMATION

Revision	Date
Revision 1	01/03/2012