



Propylene Glycol USP

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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SECTION 1: Identification

1.1. Identification

Product form : Substance
Substance name : Propylene Glycol USP
Chemical name : 1,2-Propanediol
CAS-No. : 57-55-6
Formula : C₃H₈O₂
Synonyms : 1,2-dihydroxypropane, 1,2-propanediol, propylene glycol, monopropylene glycol, United States Pharmacopeia (USP)

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Laboratory chemicals
Synthesis of substances

1.3. Supplier

Atlanta Branch Office

Whitaker Oil Company
1557 Marietta Road NW
Atlanta, GA 30318
404-355-8220 (t)
404-355-2436 (f)

Ocoee Branch Office

Whitaker Oil Company
280 Enterprise Street
Ocoee, FL 34761
407-656.0088 (t)
407-877-8335 (f)

Spartanburg Branch Office

Whitaker Chemicals LLC
405 John Dodd Road
Spartanburg, SC 29303
864-578-6968 (t)
864-578-6864 (f)

WEBSITE: www.whitakeroil.com

EMAIL: SDS@whitakeroil.com

1.4. Emergency telephone number

Emergency number : CHEMTREC 800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified as hazardous according to OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Not classified as hazardous according to OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

2.3. Other hazards which do not result in classification

This product is not to be used to produce fogs or mists in the theatrical, musical, or other entertainment performances, This product is not to be used as a component of the liquid used in electronic cigarette (e-cigarette) product.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Substance

Name	Product identifier	%	GHS-US classification
Propylene Glycol USP (Main constituent)	(CAS-No.) 57-55-6	>=99.0	Not classified

The specific chemical identity and/ or exact percentage (concentration) of composition may be withheld as a trade secret.

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Do not leave the victim unattended.
First-aid measures after inhalation : If unconscious, place in recovery position and seek medical advice.

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First-aid measures after skin contact	: Wash with water and soap as a precaution.
First-aid measures after eye contact	: Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Call Poison Control Center. Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

4.2. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: High volume water jet.

5.2. Specific hazards arising from the chemical

Fire hazard	: No data is available on the product itself.
Reactivity	: Reacts violently with (strong) oxidizers: (increased) risk of fire. Violent to explosive reaction with (strong) acids.

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighborhood close doors and windows.
Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety.
Protection during firefighting	: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Protective clothing.
Emergency procedures	: Mark the danger area. No naked flames. Wash contaminated clothes. In case of reactivity hazard: consider evacuation.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Contain released product, pump into suitable containers. Plug the leak, cut off the supply.
Methods for cleaning up	: Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Handle empty containers with care – residue can burn if heated. Empty containers should be thoroughly rinsed with copious amounts of clean water. The rinse water can be used for makeup water for any necessary dilution of the concentrated product before use, or it can be properly discarded.
Hygiene measures	: Observe normal hygiene standards. Keep container tightly closed.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool.
Heat-ignition	: KEEP SUBSTANCE AWAY FROM: heat sources.
Information on mixed storage	: KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents. (strong) acids. water/moisture.

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Storage area	: Store in a cool area. Store in a dry area. Store at ambient temperature. Keep out of direct sunlight. Ventilation at floor level. Provide the tank with earthing. Meet the legal requirements.
Special rules on packaging	: SPECIAL REQUIREMENTS: closing. clean. dry. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials	: SUITABLE MATERIAL: stainless steel. carbon steel. aluminium. copper. bronze. nickel. steel with plastic inner lining.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Contains no substances with occupational exposure limits values.

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: nitrile rubber.

GIVE GOOD RESISTANCE: butyl rubber. natural rubber. polyethylene. PVC. polyethylene/ethylenevinylalcohol. neoprene

Hand protection:

Gloves

Eye protection:

Safety glasses

Skin and body protection:

Protective clothing

Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Colorless; Clear
Odor	: Almost odorless
Odor threshold	: No data available
pH	: 6.5 - 7.5 (50 %)
Melting point / Freezing point	: -60 °C
Boiling point	: >184 °C (1003 hPa)
Flash point	: 104 °C (Closed cup, 1000 hPa)
Relative evaporation rate (butyl acetate=1)	: < 0.01
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: 20 hPa (25 °C)
Relative vapor density at 20 °C	: 2.6
Relative density	: 1.04 (20 °C)
Specific gravity / density	: 1038 kg/m ³
Molecular mass	: 76.1 g/mol
Solubility	: Soluble in water.
Log Pow	: -1.07 (Experimental value, EU Method A.8: Partition Coefficient, 20.5 °C)
Auto-ignition temperature	: 371 °C (1000 - 1001 hPa)
Decomposition temperature	: No data available
Viscosity, kinematic	: <20 mm ² /s (25 °C)

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Viscosity, dynamic	: 46 mPa.s (25 °C)
Explosion limits	: 2.60 - 12.60 vol % 80 - 400 g/m ³ LEL: 2.6 vol % UEL: 12.6 vol %
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

Specific conductivity	: 4.4 µS/m
Saturation concentration	: 0.54 g/m ³
VOC content	: 100 %
Other properties	: Gas/vapour heavier than air at 20°C. Clear. Hygroscopic. Slightly volatile.

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide (CO₂)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Propylene Glycol USP (57-55-6)	
LD50 oral rat	22000 mg/kg (Rat, Experimental value)
LD50 dermal rabbit	> 2000 mg/kg body weight (24 h, Rabbit, Experimental value)
ATE US (oral)	20000 mg/kg body weight
ATE US (dermal)	20800 mg/kg body weight

Skin corrosion/irritation	: Not classified pH: 6.5 - 7.5 (50 %)
Serious eye damage/irritation	: Not classified pH: 6.5 - 7.5 (50 %)
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). Not irritant to skin. Not irritant to eyes.
Symptoms/effects after inhalation	: EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat. Coughing. Feeling of weakness.
Symptoms/effects after skin contact	: ON CONTINUOUS EXPOSURE/CONTACT: Red skin. Not irritating.
Symptoms/effects after eye contact	: Redness of the eye tissue.

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Symptoms/effects after ingestion : AFTER INGESTION OF HIGH QUANTITIES: Nausea. Abdominal pain.
Chronic symptoms : Change in the haemogramme/blood composition. Decreased renal function.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Not harmful to crustacea. Not harmful to fishes. Groundwater pollutant. Not harmful to algae.
Not harmful to bacteria.

Propylene Glycol USP (57-55-6)	
LC50 fish 1	51600 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Experimental value)
LC50 fish 2	40613 mg/l (Other, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value)
ErC50 (algae)	24200 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value)

12.2. Persistence and degradability

Propylene Glycol USP (57-55-6)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.96 - 1.08 g O ₂ /g substance
Chemical oxygen demand (COD)	1.63 g O ₂ /g substance
ThOD	1.69 g O ₂ /g substance

12.3. Bioaccumulative potential

Propylene Glycol USP (57-55-6)	
BCF other aquatic organisms 1	0.09
Log Pow	-1.07 (Experimental value, EU Method A.8: Partition Coefficient, 20.5 °C)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

Propylene Glycol USP (57-55-6)	
Surface tension	71.6 mN/m (21.5 °C, 1.01 g/l)
Log Koc	0.46 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Empty containers should be taken to an approved waste handling site for recycling or disposal.
Product/Packaging disposal recommendations : Do not discharge into drains or the environment. Remove waste in accordance with local and/or national regulations. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

SECTION 14: Transport information

Department of Transportation (DOT)

Not regulated as dangerous goods

Transportation of Dangerous Goods

Transport by sea

Air transport

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SECTION 15: Regulatory information

15.1. US Federal regulations

Propylene Glycol USP (57-55-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

Propylene Glycol USP (57-55-6)

State or local regulations

U.S. - New Jersey - Right to Know Hazardous Substance List

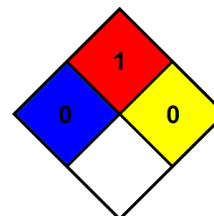
SECTION 16: Other information

Revision date : 05/07/2018

NFPA health hazard : 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 0 Minimal Hazard - No significant risk to health

Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

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