

SAFETY DATA SHEET

Preparation Date: 9/18/2014

Revision Date: 10/25/2018

Revision Number: G3

1. IDENTIFICATION

Product identifier

Product code: P1440
Product Name: 1,2-PROPANEDIOL, REAGENT, ACS

Other means of identification

Synonyms: 1,2,-propanediol;
 1,2-dihydroxypropane;
 1,2-Propylene glycol;
 alpha-Propyleneglycol;
 Methyethylene glycol;
 Monopropylene glycol;
 Propane-1,2-Diol;
 (+-)-Propane-1,2-diol

CAS #: 57-55-6
RTECS # TY2000000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Solvent. Lubricant. Preservative. Skin-conditioning agent- humectant.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
 Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Not classified

Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Propylene Glycol	57-55-6	100

4. FIRST AID MEASURES**First aid measures**

- General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.
- Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops.
- Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.
- Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

- Symptoms**
- May cause eye/skin irritation
 - May cause digestive (gastrointestinal) tract irritation
 - May cause nausea and vomiting
 - Central nervous system effects

Indication of any immediate medical attention and special treatment needed

- Notes to Physician:** Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES**Extinguishing Media**

Suitable Extinguishing Media: Carbon dioxide (CO₂). Dry chemical. Water spray mist or foam.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: Carbon Monoxide, Carbon Dioxide.

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Specific hazards: May be combustible at high temperatures. May be ignited by heat, sparks or flames. Container explosion may occur under fire conditions or when heated.

Special Protective Actions for Firefighters

Specific Methods: No information available.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth).

Methods for cleaning up Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe vapors or spray mist. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Hygroscopic. Protect from moisture. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:

Oxidizing agents
Acids
Bases
Reducing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

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United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Propylene Glycol	57-55-6	None	None	None	10 mg/m ³ TWA

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Propylene Glycol	57-55-6	None	None	None	None

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Propylene Glycol	57-55-6	150 ppm TWA 474 mg/m ³ TWA 10 mg/m ³ TWA	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection:

Goggles or Safety glasses with side-shields.

Skin and body protection:

Long sleeved clothing
Chemical resistant apron
Gloves

Respiratory protection:

Respiratory protection is not necessary for normal handling. Good room ventilation or use of local exhaust (fume hood) is sufficient. Use a vapor respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapor, inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures:

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Liquid

Appearance:

No information available.

Color:

Clear. Colorless.

Odor:

Practically odorless.

Taste

Practically tasteless.

Formula:

C₃H₈O₂

Molecular/Formula weight (g/mole):

76.10

Flammability:

No information available

Flashpoint (°C/°F):

99 °C/210 °F
107 °C/224.6 °F

Flash Point Tested according to:

Autoignition Temperature (°C/°F):

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Closed cup Open cup	371 °C/700 °F	Lower Explosion Limit (%): 2.6%
Upper Explosion Limit (%): 12.5%	Melting point/range(°C/°F): -59 °C/-74.2 °F	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): 188 °C/370.4 °F	Bulk density: No information available	Density (g/cm3): 1.036 @ 20 °C
Specific gravity: No information available	pH: No information available	Vapor pressure @ 20°C (kPa): 0.017
Evaporation rate: No information available	Vapor density: 2.62	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): -0.92	Viscosity: No information available
Miscibility: No information available	Solubility: No information available	

10. STABILITY AND REACTIVITY

Reactivity

Incompatible with chloroformates, strong acids (nitric acid, hydrofluoric acid), caustics, aliphatic amines, isocyanates, strong oxidizers, acid anhydrides, silver nitrate, reducing agents.

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Exposure to moisture. Exposure to moist air. Incompatible materials.

Incompatible Materials: Oxidizing agents
Acids
Bases
Reducing agents

Hazardous decomposition products: Carbon monoxide. Carbon dioxide.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure: Skin. Ingestion. Eyes.

Acute Toxicity

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Component Information

Propylene Glycol	
CAS-No.	57-55-6

LD50/oral/rat = 20 g/kg Oral LD50 Rat
LD50/oral/mouse = 20300-22000 mg/kg Oral LD50 Mouse
LD50/dermal/rabbit = 20800 mg/kg Dermal LD50Rabbit
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = 22000 mg/kg Oral LD50 Dog
18350-19600 mg/kg Oral LD50 Guinea Pig
18500 mg/kg Oral LD50 Rabbit

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 20000 mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 20300-22000 mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = 20800 mg/kg

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation. Mild skin irritation. It may be absorbed through the skin and cause systemic effects similar to those of ingestion.

Eye Contact: May cause eye irritation. May cause mild eye irritation with some immediate, transitory stinging, lacrimation, blepharospasm, and mild transient conjunctival hyperemia. There is no residual discomfort or injury once it is washed away. No corneal injury has been reported.

Inhalation May cause irritation of respiratory tract.

Ingestion Low acute toxicity. It may cause gastrointestinal tract irritation with nausea and vomiting. It may affect behavior/central nervous system(CNS depression, drowsiness, dizziness, fatigue, stupor, confusion, dysarthria, general anesthetic, convulsions, seizures, ataxia, tetany, somnolence, stupor, muscle contraction or spasticity, coma), brain (changes in surface EEG). It may cause metabolic acidosis.

Effects on the cardiovascular system(hypotension, bradycardia, arrhythmias, cardiac arrest) have been noted in cases with rapid intravenous injection.

Aspiration hazard No information available.

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

Chronic Toxicity Prolonged or repeated skin contact may dryness and redness of the skin, mild irritation, and rarely allergic contact dermatitis. Ingestion: Prolonged or repeated ingestion may cause hyperglycemia or hypoglycemia and may affect behavior/CNS (stupor, seizures, and other symptoms similar to that of acute ingestion). Chronic ingestion of larger amounts may also cause lactic acidosis or metabolic acidosis. Chronic exposure may also affect the kidneys and blood (changes in serum composition, reduction in red blood cell count, elevation in white blood cell count). Medical Conditions Aggravated by Exposure: Kidney disease, impaired renal function. Lactic acidosis has been reported in individuals with renal impairment or failure.

Sensitization: No information available.

Mutagenic Effects: May affect genetic material

Carcinogenic effects: Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Propylene Glycol	57-55-6	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Propylene Glycol - 57-55-6

Freshwater Algae Data: 19000 mg/L EC50 *Pseudokirchneriella subcapitata* 96 h

Freshwater Fish Species Data: 51600 mg/L LC50 *Oncorhynchus mykiss* 96 h static 1 41 - 47 mL/L LC50

Water Flea Data: Oncorhynchus mykiss 96 h static 1 51400 mg/L LC50 Pimephales promelas 96 h static 1 710 mg/L LC50 Pimephales promelas 96 h 1 1000 mg/L EC50 Daphnia magna 48 h 10000 mg/L EC50 Daphnia magna 24 h

Persistence and degradability: No information available

Bioaccumulative potential: Potential for bioconcentration in aquatic organisms is low.

Mobility: It is expected to have very high mobility based on estimated Koc.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Propylene Glycol	57-55-6	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Class: No information available
Packing group: No information available
Emergency Response Guide Number: No information available
Marine Pollutant: No data available
DOT RQ (lbs): No information available
Special Provisions: No Information available
Symbol(s): No information available
Description: No information available

TDG (Canada)

UN-No: Not regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Marine Pollutant: No Information available
Description: No information available

ADR

UN-No: Not regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available

IMO / IMDG

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UN-No: Not regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Marine Pollutant No information available

RID

UN-No: Not regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available

ICAO

UN-No: Not regulated
Proper Shipping Name: No information available
Hazard Class: Not regulated
Subsidiary Risk: No information available
Packing Group: No information available

IATA

UN-No: Not regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
ERG Code: No information available
Special Provisions No information available

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Propylene Glycol</i>	57-55-6	PresentACTIVE	Present KE-29267	Present	Present (2)-234	Present	Present	Present 200-338-0

U.S. Regulations

Propylene Glycol

New Jersey RTK Hazardous Substance List: 3595

Pennsylvania RTK: Present

Minnesota - Hazardous Substance List: Present

FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1666

FDA - 21 CFR - Total Food Additives 169.175, 175.300, 175.320, 176.180, 176.210, 177.1390, 177.1680, 177.2420, 177.2600,

- List Sourced from EAFUS 177.2800, 178.3300, 184.1666, 73.30

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:

Propylene Glycol	57-55-6	Not Listed	Not Listed	Not Listed	Not Listed
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CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Propylene Glycol	57-55-6	None	None	None	None	None

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) - Health and Safety Reporting
Propylene Glycol	57-55-6	Not Applicable	Not Applicable

Canada

WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component
Propylene Glycol
57-55-6 (100)

WHMIS 2015 Hazard Classification
Not a dangerous product according to HPR classification criteria

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

Components	WHMIS Ingredient Disclosure List -
Propylene Glycol	1 %

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Propylene Glycol	57-55-6	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Propylene Glycol	57-55-6	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Propylene Glycol	57-55-6	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Propylene Glycol	57-55-6	

EU - CLP (1272/2008)

R-phrase(s)

not determined (not applicable)

S -phrase(s)

none

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Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Propylene Glycol	57-55-6		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Not dangerous

16. OTHER INFORMATION

Preparation Date: 9/18/2014
Revision Date: 10/25/2018
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet