

SAFETY DATA SHEET

Preparation Date: 9/18/2014

Revision Date: 9/18/2014

Revision Number: G1

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 Chemicals and Laboratory Products, Inc.
 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: Regina Wachenheim (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by 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 %	Trade Secret
Propylene Glycol 57-55-6	57-55-6	100	*

4. FIRST AID MEASURES

First aid measures

General Advice:

Poison information centres in each State capital city can provide additional assistance for scheduled poisons (13 1126)

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops.

Eye Contact:

Flush eye 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

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

Product code: P1440

Product name: 1,2-PROPANEDIOL,
REAGENT, ACS

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National occupational exposure limits

U.S Occupational Exposure Limits: Not determined

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Propylene Glycol - 57-55-6	None	None	None	10 mg/m ³ TWA

Canada

Canada Occupational Exposure Limits: Not determined

Components	Alberta	British Columbia	Ontario	Quebec
Propylene Glycol - 57-55-6	None	None	10 mg/m ³ TWA aerosol only 50 ppm TWA aerosol and vapor 155 mg/m ³ TWA aerosol and vapor	None

Australia and Mexico

Occupational Exposure Limits for Australia and Mexico: Not determined

Components	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. 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

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Physical state: Liquid.	Appearance: No information available	Color: Clear. Colorless.
Odor: Practically odorless.	Taste Practically tasteless.	Formula: C3-H8-O2
Molecular/Formula weight: 76.10	Flash point (°C): No data available	Flashpoint (°C/°F): 99 °C/210 °F 107 °C/224.6 °F
Flash Point Tested according to: Closed cup Open cup	Lower Explosion Limit (%): 2.6%	Upper Explosion Limit (%): 12.5%
Autoignition Temperature (°C/°F): 371 °C/700 °F	pH: No information available	Melting point/range(°C/°F): -59 °C/-74.2 °F
Boiling point/range(°C/°F): 188 °C/370.4 °F	Decomposition temperature(°C/°F): No information available	Specific gravity: No information available
Density (g/cm3): 1.036 @ 20 °C	Bulk density: 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 at normal 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

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Information on likely routes of exposure

Principal Routes of Exposure:

Skin. Ingestion. Eyes.

Acute Toxicity

Component Information

Propylene Glycol - 57-55-6

LD50/oral/rat = 20000 mg/kg Oral LD50 Rat

LD50/oral/mouse = 20300-22000 mg/kg

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 = 20000mg/kg

LD50/oral/mouse =

Value - Acute Tox Oral = 20300-22000mg/kg

LD50/dermal/rabbit

VALUE-Acute Tox Dermal = 20800mg/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. Topical application to injured skin (e.g. as a component of burn creams) has sometimes been associated with hyperosmolality, lactic acidosis, intravascular hemolysis, with complications of central nervous system depression, seizure, coma, hypoglycemia, and renal failure.

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
Ingestion

May cause irritation of respiratory tract.
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 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	ACGIH - Carcinogens	IARC	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Propylene Glycol	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

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: 41 - 47 mL/L LC50 *Oncorhynchus mykiss* 96 h static 1
51400 mg/L LC50 *Pimephales promelas* 96 h static 1
51600 mg/L LC50 *Oncorhynchus mykiss* 96 h static 1
710 mg/L LC50 *Pimephales promelas* 96 h 1

Water Flea Data: 1000 mg/L EC50 *Daphnia magna* 48 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	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Propylene Glycol	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: Not regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: Not applicable
Packing Group: None
Marine Pollutant: No data available
ERG No: No information available
DOT RQ (lbs): 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
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

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14. TRANSPORT INFORMATION

Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

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
Description: No information available
IMDG Page: No information available
Marine Pollutant No information available
MFAG: No information available
Maximum Quantity: 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
Classification Code: No information available
Description: 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
Description: 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
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Propylene Glycol	Present	Present KE-29267	Present	Present (2)-234	Present	Present	Present 200-338-0

U.S. Regulations

Propylene Glycol

New Jersey RTK Hazardous Substance List: Present
Pennsylvania RTK: Present
RI RTK - Hazardous Substances List: Present

Propylene Glycol

Minnesota - Hazardous Substance List: Present

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

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	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Propylene Glycol	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	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 <i>de minimis</i>
Propylene Glycol	None	None	None	None	None

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Propylene Glycol	Not Applicable	Not Applicable

Canada

WHMIS hazard class:

Non-controlled

Propylene Glycol

Uncontrolled product according to WHMIS classification criteria

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Propylene Glycol	1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
Propylene Glycol	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Propylene Glycol	Not listed	Not listed

EU Classification

Product code: P1440

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R-phrase(s)

not determined

S -phrase(s)

none

Components	Classification	Concentration Limits:	Safety Phrases
Propylene Glycol		No information	

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

Indication of danger:

Not dangerous

16. OTHER INFORMATION

16. OTHER INFORMATION**NFPA****HMIS****Personal Protective Equipment**

Health Hazard	1
Fire Hazard	1
Reactivity	0

**See Section 8.**

Preparation Date: 9/18/2014
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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 Material Safety Data Sheet