

Material Safety Data Sheet

Version 3.0
Revision Date 07/13/2007
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : **1,2-Propanediol**
Product Number : 241229
Brand : Sigma-Aldrich
Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone : +18003255832
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Emergency Phone # : (314) 776-6555

2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Propylene glycol
Formula : C₃H₈O₂
Molecular Weight : 76.10 g/mol

CAS-No.	EC-No.	Index-No.	Concentration [%]
Propane-1,2-diol			
57-55-6	200-338-0	-	-

3. HAZARDS IDENTIFICATION

Emergency Overview
OSHA Hazards
No OSHA Hazards

HMIS Classification
Health Hazard: 0
Flammability: 1
Physical hazards: 0

NFPA Rating
Health Hazard: 0
Fire : 1
Reactivity Hazard: 0

Potential Health Effects

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

Ingestion

May be harmful if swallowed.

4. FIRST AID MEASURES**If inhaled**

If breathed in, move person into fresh air. If not breathing give artificial respiration

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIRE-FIGHTING MEASURES**Flammable properties**

Flash point 103 °C (217 °F) - closed cup

Ignition temperature 415 °C (779 °F)

Suitable extinguishing media

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

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Avoid breathing vapors, mist or gas.

Environmental precautions

Do not let product enter drains.

Methods for cleaning up

Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Handling**

Normal measures for preventive fire protection.

Storage

Keep container tightly closed in a dry and well-ventilated place.

hygroscopic Light sensitive.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment**Respiratory protection**

Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

For prolonged or repeated contact use protective gloves.

Eye protection

Safety glasses

Hygiene measures

General industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	liquid, clear, viscous
Colour	colourless

Safety data

pH	no data available
Melting point	-60 °C (-76 °F)
Boiling point	185 - 189 °C (365 - 372 °F)
Flash point	103 °C (217 °F) - closed cup
Ignition temperature	415 °C (779 °F)
Lower explosion limit	2.6 %(V)
Upper explosion limit	12.5 %(V)
Vapour pressure	0.11 hPa (0.08 mmHg) at 20 °C (68 °F)
Density	1.036 g/cm ³
Water solubility	no data available
Vapour density	2.63 - (Air = 1.0)

10. STABILITY AND REACTIVITY**Storage stability**

Stable under recommended storage conditions.

Conditions to avoid

Exposure to moisture.

Materials to avoid

Acid chlorides, Acid anhydrides, Oxidizing agents, Chloroformates, Reducing agents

Hazardous decomposition products**Hazardous decomposition products formed under fire conditions.**

Carbon oxides

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

LD50 Oral - rat - 20,000 mg/kg

LD50 Dermal - rabbit - 20,800 mg/kg

Irritation and corrosion

Skin - Human - Mild skin irritation - 7 d

Eyes - rabbit - Mild eye irritation

Sensitisation

no data available

Chronic exposure

no data available

Signs and Symptoms of Exposure

Gastrointestinal disturbance, Nausea, Headache, Vomiting, Central nervous system depression

Potential Health Effects

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12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

Toxicity to fish	mortality NOEC - Pimephales promelas (fathead minnow) - 52,930 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates.	mortality NOEC - Daphnia - 13,020 mg/l - 48 h
	EC50 - Daphnia magna (Water flea) - > 10,000 mg/l - 48 h

Further information on ecology

no data available

13. DISPOSAL CONSIDERATIONS

Product

Observe all federal, state, and local environmental regulations.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards

No OSHA Hazards

TSCA Status

On TSCA Inventory

DSL Status

All components of this product are on the Canadian DSL list.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No Components Listed

Pennsylvania Right To Know Components

Propane-1,2-diol

CAS-No.
57-55-6

Revision Date
1990-01-01

New Jersey Right To Know Components

Propane-1,2-diol

CAS-No.
57-55-6

Revision Date
1990-01-01

California Prop. 65 Components

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

16. OTHER INFORMATION**Further information**

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