



Material Safety Data Sheet

1-Propanol

MSDS# 96449

Section 1 - Chemical Product and Company Identification

MSDS Name: 1-Propanol

Catalog AC149480000, AC232070000, AC232070010, AC232070025, AC389600000, AC389600010

Numbers: AC389600010, AC389600025, 14948-0010, 14948-0025

Synonyms: Propyl alcohol

Company Identification:

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call:

201-796-7100

Emergency Number US:

201-796-7100

CHEMTREC Phone Number, US:

800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 71-23-8
Chemical Name: 1-Propanol
%: >99%
EINECS#: 200-746-9

Hazard Symbols:

XI F



Risk Phrases:

11 41 67

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Highly flammable. Aspiration hazard if swallowed. Can enter lungs and cause damage. Causes severe eye irritation.

Breathing vapors may cause drowsiness and dizziness. Target Organs: Kidneys, central nervous system, liver, respiratory system, gastrointestinal system, eyes, skin.

Potential Health Effects

Eye: Causes severe eye irritation. May cause conjunctivitis. Causes redness and pain. Risk of serious damage to eyes.

Skin: May cause moderate skin irritation. May be absorbed through the skin. Causes redness and pain.

Ingestion: Harmful if swallowed. Aspiration hazard. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

Inhalation: Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. Inhalation of vapors may cause drowsiness and dizziness.

Chronic: Prolonged or repeated skin contact may cause defatting and dermatitis.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Possible aspiration hazard. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use water spray to cool fire-exposed containers. Use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition Temperature: 405 deg C (761.00 deg F)

Flash Point: 15 deg C (59.00 deg F)

Explosion Limits: Lower: 2 Vol %

Explosion Limits: Upper: 12 Vol %

NFPA Rating: health: 1; flammability: 3; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

Section 7 - Handling and Storage

Handling: Follow all MSDS and label precautions even after container is emptied because they may contain product residues. Use spark-proof tools and explosion proof equipment. Take precautionary measures against static discharges. Do not get on skin or in eyes. Do not ingest or inhale.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Do not store near combustible materials. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
1-Propanol	100 ppm	200 ppm TWA; 500 mg/m3 TWA 800 ppm IDLH	200 ppm TWA; 500 mg/m3 TWA

OSHA Vacated PELs: 1-Propanol: 200 ppm TWA; 500 mg/m3 TWA

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a Respirators: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid

Color: colorless

Odor: alcohol-like

pH: 7 (20% aq. solution)

Vapor Pressure: 25mbar @20 deg C

Vapor Density: 2.07

Evaporation Rate: Not available

Viscosity: 2.2 mPa s @20 deg C

Boiling Point: 97 deg C @760mmHg (206.60°F)

Freezing/Melting Point: -127 deg C (-196.60°F)

Decomposition Temperature: Not available

Solubility in water: Soluble

Specific Gravity/Density: 0.800

Molecular Formula: C3H8O

Molecular Weight: 60.1

Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Incompatible materials, ignition sources, excess heat.
Incompatibilities with Other Materials	Not available
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, hydrogen gas.
Hazardous Polymerization	Will not occur.

Section 11 - Toxicological Information

RTECS#:	CAS# 71-23-8; UH8225000
RTECS:	CAS# 71-23-8; Draize test, rabbit, eye: 20 mg/24H Moderate;
	Inhalation, mouse: LC50 = 48 gm/m3;
	Inhalation, mouse: LC50 = 48000 mg/m3;
LD50/LC50:	Oral, mouse: LD50 = 6800 mg/kg;
	Oral, rabbit: LD50 = 2825 mg/kg;
	Oral, rat: LD50 = 1870 mg/kg;
	Oral, rat: LD50 = 2200 mg/kg;
	Skin, rabbit: LD50 = 5040 mg/kg;
Carcinogenicity:	1-Propanol - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Epidemiology:	Not available
Teratogenicity:	No information found
Reproductive:	Not available
Neurotoxicity:	No information found
Mutagenicity:	Mutation in microorganisms:
Other:	See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity:	Not available
Other:	Do not empty into drains. Biodegradable. Log POW: 0.25

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must

hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None listed.

Section 14 - Transport Information

US DOT

Shipping Name: N-PROPANOL

Hazard Class: 3

UN Number: UN1274

Packing Group: II

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 71-23-8 is listed on the TSCA Inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302

Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 71-23-8: acute, flammable.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

STATE

1-Propanol can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

California Prop 65

California No Significant Risk Level:

None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI F

Risk Phrases:

R 11 Highly flammable.

R 41 Risk of serious damage to eyes.

R 67 Vapours may cause drowsiness and dizziness.

Safety Phrases:

- S 7 Keep container tightly closed.
- S 16 Keep away from sources of ignition - No smoking.
- S 24 Avoid contact with skin.
- S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 39 Wear eye/face protection.

WGK (Water Danger/Protection)

CAS# 71-23-8: 1

Canada

CAS# 71-23-8 is listed on Canada's DSL List

Canadian WHMIS Classifications: B2, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 71-23-8 is listed on Canada's Ingredient Disclosure List

Section 16 - Other Information

MSDS Creation Date: 12/11/1997

Revision #8 Date 5/21/2007

Revisions were made in Sections: 3, 4, 5, 7, 8, 10, 11, 12, 14,

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
