

n-Propyl Alcohol

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: n-Propyl Alcohol

Synonyms/Generic Names: 1-Propanol; Ethyl Carbinol; Propyl Alcohol; N-Propanol

SDS Number: 498.00

Product Use: For Educational Use Only

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information Contact: Ward's Science
5100 West Henrietta Rd.
PO Box 92912-9012
Rochester, NY 14692
(800) 962-2660 (Monday-Friday 7:30-7:00 Eastern Time)

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Flammable liquid, Target organ effect, Irritant

Target Organs: Nerves, Liver, Eyes, Kidney, Central nervous system

Signal Words: Danger

Pictograms:



GHS Classification:

Flammable liquids	Category 2
Skin irritation	Category 3
Eye damage	Category 1
Acute toxicity, Dermal	Category 5
Acute toxicity, Inhalation	Category 4
Specific target organ toxicity – single exposure	Category 3

GHS Label Elements, including precautionary statements:

Hazard Statements:

H226	Flammable liquid and vapor.
H316	Causes mild skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H371	May cause damage to organs.
H313	May be harmful in contact with skin.
H336	May cause drowsiness or dizziness.

Precautionary Statements:

P210	Keep away from heat/sparks/open flames/hot surfaces.- No smoking.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Potential Health Effects

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

NFPA Ratings

Health hazard	1
Flammability	3
Reactivity hazard	0
Specific hazard	Not Available

HMIS Ratings

Health	1
Fire	3
Reactivity	0
Personal	H

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
n-Propanol	100	71-23-8	200-746-9	C ₃ H ₈ O	60.10 g/mol

4. FIRST-AID MEASURES

Eyes	In Rinse with plenty of water for at least 15 minutes and seek medical attention if necessary.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.
Skin	Flush with plenty of water and wash using soap. Get medical attention if necessary.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

5. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Flammable liquid. Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material. Cool containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards	Emits toxic fumes (carbon oxides) under fire conditions. See also

	Stability and Reactivity section. Vapors can travel to a source of ignition and flash back. Containers may explode in a fire. Cool containers from a distance using water spray. SENSITIVE TO STATIC DISCHARGE.
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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Use with adequate ventilation and grounding. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols. Avoid all sources of ignition and handle with spark-proof tools.

Conditions for safe storage, including any incompatibilities

Store in tightly closed, original containers in a cool, dry, well ventilated area. Store between 55-100°F for product stability.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Ventilation and appropriate grounding of containers

Component	Exposure Limits	Basis	Entity
N-Propanol	100 ppm 246 mg/m ³	TLV	ACGIH
	200 ppm 500 mg/m ³	PEL	OSHA
	200 ppm 500 mg/m ³	REL	NIOSH
	250 ppm 625 mg/m ³	STEL	NIOSH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Clear, colorless liquid.
Odor	Mild alcohol
Odor threshold	2.6 ppm
pH	Not Available
Melting point/freezing point	-127°C (-197°F)
Initial boiling point and boiling range	97°C (207°F)
Flash point	23°C (73°F)-closed cup
Evaporation rate	1.0
Flammability (solid, gas)	Flammable
Upper/lower flammability or explosive limit	LEL: 2.4% UEL:13.7%
Vapor pressure	(@ 20°C) 14.5 mmHg
Vapor density	(air=1) 2.1
Relative density	0.804 g/cm ³ at 25°C (68°F)
Solubility (ies)	Completely soluble in water.
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	413°C (775°F)
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Keep away from heat, flame and sparks.
Incompatible Materials	Strong oxidizers.
Hazardous Decomposition Products	Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	LC50 Dermal- rabbit- 4,000 mg/kg
Eyes	Eyes- rabbit- Severe eye irritation.
Respiratory	LC50 Inhalation- rat- 1h- 20,000ppm
Ingestion	LD50 Oral- rat- 8,038mg/kg

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	A4: A4: Not classifiable as a human carcinogen.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Burning, itching, redness. May be harmful if absorbed through skin.
Eyes	Redness, excessive blinking and watering eyes.
Respiratory	Coughing, wheezing, headache, disorientation, blurred vision, dizziness, fatigue or nausea.
Ingestion	Nausea, vomiting. May cause central nervous system depression.

Chronic Toxicity	Not Available
Teratogenicity	Not Available
Mutagenicity	Not Available
Embryotoxicity	Not Available
Specific Target Organ Toxicity	May cause drowsiness or dizziness.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	LC50- Pimephales promelas (fathead minnow)- 1,000 mg/l- 96 h
Aquatic Invertebrate	EC50- Daphnia magna (Water flea)- 3,642 mg/l- 48 h
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste products or residues.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORT INFORMATION

US DOT	UN1274, N-Propanol, 3, pg II
TDG	UN1274, N-PROPANOL, 3, pg II
IDMG	UN1274, N-PROPANOL, 3, pg II
Marine Pollutant	No
IATA/ICAO	UN1274, N-Propanol, 3, pg II

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
California Proposition 65	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	N-Propanol
SARA 312	N-Propanol
SARA 313	Not Listed
WHMIS Canada	Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F) Class D-2B: Material causing other toxic effects.

16. OTHER INFORMATION

Revision	Date
Revision 1	02/04/2013

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