

PROPANOL NORMAL  
20489

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone	1-800-ASHLAND (1-800-274-5263)
Product name	PROPANOL NORMAL	
Product code	20489	
Product Use Description	No data	

**2. HAZARDS IDENTIFICATION**

**Emergency Overview**

Appearance: liquid,, Colorless

WARNING! FLAMMABLE LIQUID AND VAPOR. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY BE HARMFUL IF INHALED OR SWALLOWED. CAUSES EYE IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS.

**Potential Health Effects**

**Exposure routes**

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

**Eye contact**

Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

**Skin contact**

May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

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**Ingestion**

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

**Inhalation**

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

**Aggravated Medical Condition**

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions), Liver

**Symptoms**

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), Lowered blood pressure, respiratory depression (slowing of the breathing rate)

**Target Organs**

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: male reproductive effects, effects on male fertility, liver damage

**Carcinogenicity**

n-Propanol caused an increased cancer incidence in rats when administered by injection or by placing the material into the stomach. Problems with these studies, including inadequate evaluation of the data, prevent their use in evaluating n-propanol for carcinogenicity. n-Propanol is not listed as carcinogenic by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), or the Occupational Safety and Health Administration (OSHA).

**Reproductive hazard**

This material (or a component) has been shown to cause birth defects in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

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<b>Hazardous Components</b>	<b>CAS-No.</b>	<b>Concentration</b>
PROPANOL, NORMAL	71-23-8	<=100%

#### **4. FIRST AID MEASURES**

##### **Eyes**

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

##### **Skin**

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

##### **Ingestion**

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

##### **Inhalation**

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

##### **Notes to physician**

**Hazards:** No information available.

**Treatment:** No information available.

#### **5. FIRE-FIGHTING MEASURES**

##### **Suitable extinguishing media**

Dry chemical, Alcohol-resistant foam, Water spray, Carbon dioxide (CO2)

##### **Hazardous combustion products**

carbon dioxide and carbon monoxide

##### **Precautions for fire-fighting**

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Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

### **NFPA Flammable and Combustible Liquids Classification**

Flammable Liquid Class IC

## **6. ACCIDENTAL RELEASE MEASURES**

### **Personal precautions**

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks).

### **Environmental precautions**

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

### **Methods for cleaning up**

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

## **7. HANDLING AND STORAGE**

### **Handling**

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77. Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes

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without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

**Storage**

Keep containers closed when not in use. Do not store near extreme heat, open flame, or sources of ignition.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

PROPANOL, NORMAL		71-23-8
NIOSH	Recommended exposure limit (REL):	200 ppm
NIOSH	Recommended exposure limit (REL):	500 mg/m3
NIOSH	Short term exposure limit	250 ppm
NIOSH	Short term exposure limit	625 mg/m3
OSHA Z1	Permissible exposure limit	200 ppm
OSHA Z1	Permissible exposure limit	500 mg/m3
ACGIH	time weighted average	100 ppm

**General advice**

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

**Exposure controls**

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

**Eye protection**

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

**Skin and body protection**

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation

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develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves (consult your safety equipment supplier).

**Respiratory protection**

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state</b>	liquid
<b>Form</b>	No data
<b>Colour</b>	Colorless
<b>Odour</b>	alcoholic
<b>Boiling point/boiling range</b>	97.20 °C
<b>Melting point/range</b>	-197 °F / -127 °C
<b>pH</b>	7@ 100 g/l
<b>Flash point</b>	23.00 °C Closed Cup
<b>Evaporation rate</b>	1.30 (n-Butyl Acetate)
<b>Lower explosion limit/Upper explosion limit</b>	2.1 %(V) / 13.5 %(V)
<b>Vapour pressure</b>	2.799 kPa @ 25 °C
<b>Vapour density</b>	2.1 (AIR=1)
<b>Density</b>	0.805 g/cm <sup>3</sup> @ 68.00 °F / 20.00 °C 6.71 lb/gal @ 68 °F / 20 °C
<b>Solubility</b>	completely soluble in water
<b>Partition coefficient: n-octanol/water</b>	No data
<b>log Pow</b>	0.25
<b>Autoignition temperature</b>	775 °F / 413 °C

**10. STABILITY AND REACTIVITY****Stability**

Stable.

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**Conditions to avoid**

Avoid heat, open flame, and prolonged storage at elevated temperatures.

**Incompatible products**

aluminum, Lead, strong organic acids, Strong oxidizing agents

**Hazardous decomposition products**

carbon dioxide and carbon monoxide

**Hazardous reactions**

Product will not undergo hazardous polymerization.

**Thermal decomposition**

No data

**11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity : LD 50 Rat: 1,870 mg/kg  
Acute inhalation toxicity : LC 50 Rat: 4000 ppm, 4 h  
Acute dermal toxicity : LD 50 Rabbit: 5,040 mg/kg

**12. ECOLOGICAL INFORMATION**

**Biodegradability**

PROPANOL, NORMAL : no data available

**Bioaccumulation**

PROPANOL, NORMAL : no data available

**Ecotoxicity effects**

**Toxicity to fish**

PROPANOL, NORMAL : no data available

**Toxicity to daphnia and other aquatic invertebrates.**

PROPANOL, NORMAL : no data available

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**Toxicity to algae**

PROPANOL, NORMAL : no data available

**Toxicity to bacteria**

PROPANOL, NORMAL : no data available

**Biochemical Oxygen Demand (BOD)**

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**Chemical Oxygen Demand (COD)**

PROPANOL, NORMAL : no data available

**Additional ecological information**

PROPANOL, NORMAL : no data available

**13. DISPOSAL CONSIDERATIONS**

**Waste disposal methods**

Dispose of in accordance with all applicable local, state and federal regulations. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

**14. TRANSPORT INFORMATION**

**REGULATION**

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT /LTD. QTY.
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**U.S. DOT - ROAD**

UN 1274	n-Propanol	3		III	
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**U.S. DOT - RAIL**

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UN	1274	n-Propanol	3	III
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**U.S. DOT - INLAND WATERWAYS**

UN	1274	n-Propanol	3	III
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**TRANSPORT CANADA - ROAD**

UN	1274	n-PROPANOL	3	III
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**TRANSPORT CANADA - RAIL**

UN	1274	n-PROPANOL	3	III
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**TRANSPORT CANADA - INLAND WATERWAYS**

UN	1274	n-PROPANOL	3	III
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**INTERNATIONAL MARITIME DANGEROUS GOODS**

UN	1274	PROPANOL	3	III
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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

UN	1274	n-Propanol	3	III
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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

UN	1274	n-Propanol	3	III
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**MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES**

UN	1274	n-PROPANOL	3	III
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\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

**15. REGULATORY INFORMATION**

**California Prop. 65**

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

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**SARA Hazard Classification**

Fire Hazard  
Acute Health Hazard

**New Jersey RTK Label Information**

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**Pennsylvania RTK Label Information**

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**Notification status**

Australia. Industrial Chemical (Notification and Assessment) Act y (positive listing)  
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133) y (positive listing)  
China. Inventory of Existing Chemical Substances y (positive listing)  
Japan. Kashin-Hou Law List y (positive listing)  
US. Toxic Substances Control Act y (positive listing)  
EU. EINECS y (positive listing)  
Korea. Toxic Chemical Control Law (TCCL) List y (positive listing)  
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act y (positive listing)  
Japan. Industrial Safety & Health Law (ISHL) List y (positive listing)  
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand y (positive listing)  
Switzerland. Consolidated Inventory y (positive listing)

**Reportable quantity - Product**

US. EPA CERCLA Hazardous Substances (40 CFR 302) 100 lbs

**Reportable quantity-Components**

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	<b>HMIS</b>	<b>NFPA</b>
Health	2	1
Flammability	3	3
Physical hazards	0	
Instability		0
Specific Hazard	--	--

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#### **16. OTHER INFORMATION**

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).