

MATERIAL SAFETY DATA SHEET

Product Name: Propylene Oxide
Catalog Number: 20400
DOT Hazard Class: 3 (Flammable Liquid)
DOT Proper Shipping Name: Propylene Oxide
UN/NA ID No.: UN 1280
MSDS Updated: 9/2011

Distributed By: Ladd Research
83 Holly Court
Williston, VT 05495
(802) 658-4961

HAZARDOUS COMPONENTS

	<i>CAS Number</i>	<i>Percent</i>	<i>Exposure Limits</i>
Propylene Oxide	75-56-9	100%	100 ppm (OSHA PEL) 20 ppm (ACGIH TLV)

PHYSICAL AND CHEMICAL DATA

Boiling Point: 94°F
Freezing Point: -169°F
Vapor Pressure: 440 mm Hg @ 68°F
Specific Gravity: 0.83
Vapor Specific Gravity: 2.0 (air = 1)
Solubility: Appreciable solubility in water
Appearance and Odor: Clear, colorless liquid. Ethereal odor. Odor Threshold = 200 ppm.

FIRE AND EXPLOSION HAZARD DATA

Flash Point: -35°F (Tag Closed Cup)
Autoignition Temperature: 869°F
Flammable Limits: Lower = 1.7; Upper = 38.5
Fire and Explosion Hazards: Releases flammable vapors below normal ambient temperatures. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air. May travel long distances along ground before igniting/flashing back to vapor source. Diluting with water may not suffice to raise flash point above ambient temperatures.
Extinguishing Media: Dry chemical, alcohol foam, water spray, water fog
Special Fire Fighting Procedures: Do not enter fire area without proper protection. Heat may build pressure and rupture closed containers. Where practical, cut off supply of fuel to fire and maintain water spray or fog to prevent spreading and allow fire to burn out. Notify authorities if liquid enters sewer or water supplies.

HEALTH HAZARD DATA

Primary Routes of Entry: Inhalation, Eye, Skin, Ingestion
Inhalation: Overexposure may cause irritation to the respiratory tract and to other mucous membranes.
Eye: May cause severe irritation.
Skin: Extensive and prolonged or repeated exposure to this material can result in significant absorption. May cause immediate skin irritation and blistering.
Ingestion: This material may be a slight health hazard if ingested in large amounts.

EMERGENCY AND FIRST AID

Inhalation: Remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention.
Eye: Immediately rinse with clean water for 20-30 minutes. Retract eyelids often. Obtain emergency medical attention.
Skin: Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes.
Ingestion: Give lukewarm water (1 pint) if victim is completely conscious. Do Not induce vomiting. Obtain emergency medical attention.

REACTIVITY DATA

Stability: Stable
Hazardous Polymerization: May occur

Conditions to Avoid: Heat, sparks, open flame oxidizing conditions

Materials to Avoid: Strong acids, bases, peroxides, anhydrous metal chlorides, copper and its alloys, brass, bronze and other acetylide forming metals.

Hazardous Decomposition Products: Incomplete combustion will generate highly poisonous carbon monoxide and perhaps other toxic vapors.

SPILL, DISPOSAL AND STORAGE INFORMATION

Spill: Release causes immediate fire and explosion hazard. Extinguish all ignition sources. Soak up small spill with absorbent material.

Disposal: Contaminated material may be RCRA/OSHA hazardous waste. Consult federal, state and local authorities.

Storage: Store in tightly closed and properly vented containers away from heat, sparks, open flame and strong oxidizing agents. Use only non-sparking tools. Carefully vent internal pressure before removing closure.

PROTECTIVE EQUIPMENT AND CONTROL MEASURES

Respiratory: Only NIOSH/MSHA approved supplied air or self-contained breathing apparatus operated in positive pressure mode are satisfactory.

Eye: Chemical splash goggles

Skin: Impervious suit with gloves, boots and full head and face protection must be worn.

Ventilation: Use only where ventilation can control exposures to within exposure limits.

SECTION 313 SUPPLIER NOTIFICATION

This product is regulated by SARA Title III.

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