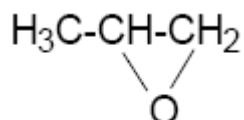


**Technical Bulletin****Propylene Oxide**

Generic: oxirane, methyl; alkylene oxide

**STRUCTURE****DESCRIPTION**

A colorless liquid with an ether-like odor.

**APPLICATIONS**

A chemical intermediate used in the production of polyether diols and triols for the polyurethane industries; mono, di, tri and polypropylene glycols; and surface-active agents.

**SALES SPECIFICATIONS**

Property	Specifications	Test Method *
Acidity (as acetic acid), ppm	50 max.	ST-31.41,J
Aldehyde, total, ppm	100 max.	ST-38.40
Appearance	Clear and substantially free of suspended matter	ST-30.1
Assay, wt% (dry basis)	99.9 min.	By Difference
Color, Pt-Co	10 max.	ST-30.12
Nonvolatile residue, g/100 mL	0.002 max.	ST-1.3
Water, ppm	250 max.	ST-31.53,5

\* Methods of test are available from Huntsman upon request.

**ADDITIONAL INFORMATION**

Regulatory Information	
DOT Classification	Propylene Oxide, Class 3, UN1280, PG I, RQ
Freight Classification	Propylene Oxide
OSHA Classification	Suspected Carcinogen
HMIS Code	3-4-2
WHMIS Classification	B2, D1B, D2A, D2B
CAS Number	75-56-9

Chemical Control Laws	
Australia, AICS	Listed
Canada, DSL	Listed
Europe, EINECS	Listed
Japan, METI	Listed
United States, TSCA	Listed

Physical Properties	
Chlorides (inorganic) as Cl, ppm	0.1
Distillation range, 760 mmHg, °C, IBP	33.0 min.
Distillation range, 760 mmHg, °C, DP	37.0 max.
Exposure limits in air, vol.%	2.1 – 38.5
Flash point, PMCC, °C (°F)	-37 (-35)
Freezing point, °C (°F)	-104 (-155)
Heat of vaporization, cal/g, 760 mmHg	89
Molecular weight	58
Refractive index, 20°C	1.3657
Residual odor	None
Specific gravity, 20/20°C	0.830
Specific heat, 20°C, cal/g/°C	0.51
Vapor pressure, mmHg, 20°C (68°F)	455
Viscosity, cP, 20°C (68°F)	0.33
Water solubility, %	> 10
Weight, lb/gal, 20°C	6.92

## PRODUCT SAFETY POLICY

It is the product safety policy of Huntsman to provide our customers with information on the safe handling and use of our products. The Material Safety Data Sheet (MSDS) should always be read and understood thoroughly before handling the product and adequate safety procedures should be followed. Information on the toxicity, environmental and industrial hygiene aspects of our products may be found in the MSDS. Precautionary measures include: use only with adequate ventilation; avoid breathing vapor, mist or gas; avoid contact with eyes, skin and clothing; keep container closed; wash thoroughly after handling.

## HANDLING AND STORAGE PRECAUTIONS

Carbon steel storage tanks and piping are generally satisfactory for handling propylene oxide. No copper or other acetylide-forming metal should be in contact with propylene oxide. Storage tanks should be insulated where practical and a water spray system should be provided. Please contact Huntsman's Technical Services Section for additional information. Product is available in tank cars and single compartment MC-331 tank trucks. Certain government regulations may apply at the time of shipment.

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**For Your Protection****HEALTH AND SAFETY**

*The Safety and Health information in this data sheet does not contain sufficient detail for safe handling in all cases. For detailed safety and health information refer to the **Material Safety Data Sheet** for this product.*

**EMERGENCY CALLS: Huntsman Emergency Response Center: 800-328-8501, 409-722-8381 / CHEMTREC - Spills, Leak, Fire 800-424-9300 (in USA and Canada)**

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