



ARC Specialty Products, Balchem Corporation

52 Sunrise Park Road
New Hampton, NY 10973
845-326-5641
www.balchem.com

Properties of Ethylene Oxide

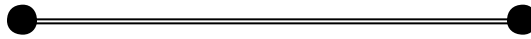
Appearance: Colorless Liquid or Gas Odor:

Sweet, ether-like 250-700 ppm

Boiling Point: 50.9°F (10.5°C)

Vapor Density: 1.5 (Air=1)

Solubility in Water: 100%



**OSHA Pel 8 hour weighted average
1 part per million**

**OSHA 15 Minute Excursion Limit
15 Minute Time Weighted Average
5 parts per million**

**Humans can smell Ethylene Oxide
700 parts per million**

**Immediately Dangerous to Life & Health (IDLH)
800 parts per million**

**Lower Explosion Limit
2.6% - 100% in atmosphere**



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	Liquid	Gas
Boiling Point (760mm)	50.9° F (10.5° C)	-
Coefficient of Expansion		
20° C (69° F)	0.00161 per ° C	-
55° C (130° F)	0.00170 per ° C	-
73.9° C (165° F)	0.002095 per ° C	
Color	Colorless	Colorless
Corrosiveness	Non-Corrosive	Non-Corrosive
Critical Density	2.7 lbs per gallon	-
Critical Pressure (lbs./sq abs)	-	1043
Critical Temperature	-	196° C (385° F)
Density at 20/20° lbs/gal.	7.25	-
Explosive Limits	Non-Explosive	Explosive
Percent by volume in air:		
Upper	-	100%
	-	3%
Flash Point (Open cup)	<0° F	-
Heat of Combustion	-	312.15
Kg. Cal./gm. mol.		
Heat of Vaporization	250	-
1atm, BTU/lb.		
Hygroscopicity	Light	-
Auto-ignition temperature in air	-	444° C (832° F)
(1 atm)		
Decomposition temperature in	-	560° C (1040° F)
absence of air		
Freezing Point	-112.6° C (170.7° F)	-
Molecular Weight	44.05	-
Odor	Characteristic ether-like odor, but irritating in high concentration	Characteristic ether-like odor, but irritating in high concentration