

Ethylene Oxide (EO)



Important raw materials used in large-scale chemical production

CAS number
75-21-8

EINECS/ELINCS No.
200-849-9

Molecular weight
44.05

Molecular formula
C₂H₄O

Specifications

Appearance (MOA 200)	Clear liquid
Assay (calculated)	≥ 99.97 wt%
Aldehydes as acetaldehyde (MOA 550)	≤ 50 ppm
Carbon dioxide (MOA 554)	≤ 0.5 ppm
Formaldehyde (MOA 554)	≤ 15 ppm
Water (MOA 557)	≤ 0.02 wt%

Characteristics

Color	Colorless
Odor	Odorless
Explosive properties	Yes
Flammability, liquids	Extremely flammable aerosol. Chemically unstable at 20°C and 101.3 kPa
Oxidizing properties	No
Water solubility	Soluble, 20°C
Melting point/freezing point, 1013 hPa	-111 °C
Boiling point/boiling range, 1013 hPa	10.7 °C
Flash point, 1013 hPa, DIN 51755	-57 °C
Density, 10°C	890 kg/m ³
Relative density, 10.5°C	0.88
Partition coefficient, N-octanol/water, 25°C, log Pow	-0.3
Dynamic viscosity, 10°C	0.254 mPa.s

Notes:

Methods of Analysis (MOA) are available upon request. In case of dispute, the listed Method of Analysis will be used as reference methods.

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