



>>Entry Name: Triethylene glycol, 8CI

Synonym(s): 2,2'-[1,2-Ethanediylbis(oxy)]bisethanol, 9CI. 1,2-Bis(2-hydroxyethoxy)ethane. 3,6-Dioxa-1,8-octanediol. Trigol. Triglycol

CAS Registry Number: 112-27-6

Related CAS Registry Numbers(s): 13150-00-0

HOCH₂CH₂OCH₂CH₂OCH₂CH₂OH

Molecular Formula: C₆H₁₄O₄

Molecular Weight: 150.174

Accurate Mass: 150.08921

Percentage Composition: C 47.99%; H 9.40%; O 42.62%

Source/Synthesis: Manuf. by hydration of ethylene glycol or from diethylene glycol and ethylene oxide

Use/Importance: Used as high-temp. solvent, for drying gases, as plasticiser for cellophane film and as a comonomer for polyesters and polyurethanes

Physical Description: Hygroscopic liq.

Melting Point: Mp -4.3°

Boiling Point: Bp 278.31° (286°). Bp₂ 134°

Solubility: Misc. H₂O, EtOH, C₆H₆

Density: d₄¹⁵ 1.1274

Refractive Index: n_D²⁰ 1.4531

Hazard & Toxicity: Skin and eye irritant. LD₅₀ (rat, orl) 17000 mg/kg. Exp. reprod. effects. Fl. p. 166° (oc), autoignition temp. 371°

Aldrich: T5945-5

Fluka: 90390

>>Derivative: Di-Ac

CAS Registry Number: 111-21-7

Molecular Formula: C₁₀H₁₈O₆

Molecular Weight: 234.249

Accurate Mass: 234.11034

Percentage Composition: C 51.27%; H 7.74%; O 40.98%

Use/Importance: Plasticiser

Physical Description: Liq.

Melting Point: Mp 300°

Solubility: Sl. sol. H₂O

Rare Chemicals Library: S44292-5

>>Derivative: Di-2-propenoyl

CAS Registry Number: 1680-21-3

Molecular Formula: C₁₂H₁₈O₆

Molecular Weight: 258.271

Accurate Mass: 258.11034

Percentage Composition: C 55.81%; H 7.02%; O 37.17%

Use/Importance: Crosslinking monomer; used in photopolym. concns.

Physical Description: Liq.

Boiling Point: Bp_{0.25} 125°

Refractive Index: n_D²⁰ 1.4609

>>Derivative: Bis(2-methyl-2-propenoyl)

CAS Registry Number: 109-16-0

Molecular Formula: C₁₄H₂₂O₆

Molecular Weight: 286.324

Accurate Mass: 286.14164

Percentage Composition: C 58.73%; H 7.74%; O 33.53%

Use/Importance: Comonomer for plastics; vinyl resin crosslinking agent

Physical Description: Liq.

Boiling Point: Bp₁ 155°

Refractive Index: n_D²⁰ 1.4604

Aldrich: 26154-8

Fluka: 90412

Rare Chemicals Library: S35651-4

Sigma: T5537