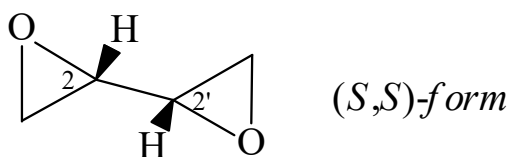




>>Entry Name: **2,2'-Bioxirane**, 9CI

Synonym(s): 1,2:3,4-Diepoxybutane, 8CI. Butadiene diepoxide. 1,1'-Bi[ethylene oxide]



CAS Registry Number: 1464-53-5

Related CAS Registry Numbers(s): 30419-67-1

Molecular Formula: C₄H₆O₂

Molecular Weight: 86.09

Accurate Mass: 86.03678

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

Use/Importance: Cross-linking agent for polysaccharides

Hazard & Toxicity: Severe skin, pulmonary and eye irritant. LD₅₀ (rat, orl) 78 mg/kg. LD₅₀ (rbt, skn) 80 mg/kg. LC₅₀ (rat, ihl) 90 ppm (4h exposure)

Aldrich: 20253-3

Rare Chemicals Library: S53057-3

Sigma: D7019

>>Derivative: Polymer with aziridine

Synonym(s): Polyetadene, INN. Polyethadene, USAN. Lilly 30639

CAS Registry Number: 9003-23-0

Use/Importance: Antacid

>>Variant: (2*S*,2'*S*)-form

CAS Registry Number: 30031-64-2

Molecular Formula: C₄H₆O₂

Molecular Weight: 86.09

Accurate Mass: 86.03678

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

Melting Point: Mp 24-25.6°

Boiling Point: Bp 144.5-145°. Bp₅₀ 64°

Optical Rotation: [α]_D +25.7 (c, 2.1 in CHCl₃)

Hazard & Toxicity: Poss. human carcinogen. Exp. neoplastic agent

>>Variant: (2*RS*,2'*RS*)-form

Synonym(s): (±)-form

CAS Registry Number: 298-18-0

Extra CAS Registry Numbers(s): 34897-03-5

Molecular Formula: C₄H₆O₂

Molecular Weight: 86.09

Accurate Mass: 86.03678

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

Melting Point: Mp 4°

Boiling Point: Bp 144.5°. Bp_{13.5} 44.5°

Density: d₂₀ 1.113

Refractive Index: n_D²⁰ 1.4340

Hazard & Toxicity: Poss. human carcinogen. LD₅₀ (rat, orl) 210 mg/kg. LD₅₀ (rbt, skn) 800 mg/kg. Exp. carcinogen