>>**Entry Name: Thiirane,** 9CI
Synonym(s): Ethylene sulfide, 8CI. Dimethylene sulfide. Dihydrothiirene. Thiacyclopropane. Ethylene episulfide

CAS Registry Number: 420-12-2
Related CAS Registry Numbers(s): 133217-11-5

Molecular Formula: C_2H_4S
Molecular Weight: 60.12
Accurate Mass: 60.00337
Percentage Composition: C 39.96%; H 6.71%; S 53.34%
Physical Description: Liq.
Melting Point: Fp –109°
Boiling Point: Bp 55-56°
Density: d_4^{20}1.013
Refractive Index: n_D^{20} 1.4960
Other Data: Rapidly polymerises
Hazard & Toxicity: Eye, skin and mucous membrane irritant. LD_{50} (rat, orl) 178 mg/kg. LC_{50} (rat, ihl) 690 ppm (6h exposure)

Aldrich: 12825-2
Fluka: 3910

>>**Derivative:** *S*-Oxide
Synonym(s): Thiirane *S*-oxide. Ethylene sulfoxide. Ethylene episulfoxide

CAS Registry Number: 7117-41-1
Molecular Formula: C_2H_4OS
Molecular Weight: 76.119
Accurate Mass: 75.998285
Percentage Composition: C 31.56%; H 5.30%; O 21.02%; S 42.13%
Boiling Point: Bp_2 46-48°
Refractive Index: n_D^{25} 1.5210
Other Data: Dethionylates at ca. 100°
Hazard & Toxicity: Causes skin burns

>>**Derivative:** *S,S*-Dioxide
Synonym(s): Thirane *S,S*-dioxide. Ethylene sulfone

CAS Registry Number: 1782-89-4
Molecular Formula: $C_2H_4O_2S$
Molecular Weight: 92.118
Accurate Mass: 91.9932
Percentage Composition: C 26.08%; H 4.38%; O 34.74%; S 34.81%
Physical Description: Cryst. (EtOH/MeOH)
Melting Point: Mp 19°

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