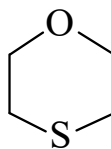




>>Entry Name: **1,4-Oxathiane**, 9CI

Synonym(s): Thioxan. 2,3,5,6-Tetrahydro-1,4-oxathiin. 1,4-Thioxane



CAS Registry Number: 15980-15-1

Molecular Formula: C₄H₈OS

Molecular Weight: 104.173

Accurate Mass: 104.029585

Percentage Composition: C 46.12%; H 7.74%; O 15.36%; S 30.78%

Use/Importance: Used as a 10% soln. in conc. HCl for extraction-photometric detn. of Pd ($\lambda_{\max}$ 315 nm)

Physical Description: Liq.

Melting Point: Mp -17°

Boiling Point: Bp 147°. Bp₄₇ 69.9°

Solubility: Spar. sol. H₂O

Density: d₄²⁰ 1.12

Refractive Index: n_D²⁰ 1.5081

Hazard & Toxicity: Eye and skin irritant. LD₅₀ (rat, orl) approx. 3000 mg/kg. Flammable, fl. p. 42°

Aldrich: 13197-0

>>Derivative: Ethiodide

Physical Description: Yellow cryst. (EtOH)

Melting Point: Mp 85°

>>Derivative: S-Oxide

CAS Registry Number: 109-03-5

Molecular Formula: C₄H₈O₂S

Molecular Weight: 120.172

Accurate Mass: 120.0245

Percentage Composition: C 39.98%; H 6.71%; O 26.63%; S 26.68%

Physical Description: Hygroscopic plates

Melting Point: Mp 46-47.2° (41-45°)

Boiling Point: Bp 97-101°

>>Derivative: S,S-Dioxide

CAS Registry Number: 107-61-9

Molecular Formula: C₄H₈O₃S

Molecular Weight: 136.171

Accurate Mass: 136.019415

Percentage Composition: C 35.28%; H 5.92%; O 35.25%; S 23.55%

Physical Description: Cryst. (MeOH)

Melting Point: Mp 134° (130-131°)

Rare Chemicals Library: S58072-4

References: