



>>Entry Name: Sulfuryl chloride, 11Cl
Synonym(s): Sulfur(VI) dichloride dioxide

CAS Registry Number: 7791-25-5
S(O)2Cl2

Molecular Formula: Cl2O2S
Molecular Weight: 134.97
Accurate Mass: 133.899604
Percentage Composition: Cl 52.53%; O 23.71%; S 23.76%

Source/Synthesis: Synth from SO2 + Cl2
Use/Importance: Commercially available. Used as a chlorinating agent
Physical Description: Colourless liq., hydrol. to HCl and H2SO4
Melting Point: Mp -54°
Boiling Point: Bp 69.2°
Solubility: Sol. C6H6, CHCl3, Et2O
Density: d_4^0 1.705
Refractive Index: n_D^{20} 1.4430
Hazard & Toxicity: Corrosive to skin, toxic, lachrymator. Strong odour

Aldrich: 32052-8
Fluka: 86211

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 1227A, (*ir*)
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Inorg. Synth., 1939, **1**, 114, (*synth*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 1128; 1969, **2**, 394; 1972, **3**, 276; 1974, **4**, 474; 1975, **5**, 641; 1977, **6**, 561; 1982, **10**, 375, (*uses*)
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