



>>Entry Name: Acetyl chloride

CAS Registry Number: 75-36-5

Related CAS Registry Numbers(s): 19259-90-6

H_3CCOCl

Molecular Formula: $\text{C}_2\text{H}_3\text{ClO}$

Molecular Weight: 78.498

Accurate Mass: 77.987242

Percentage Composition: C 30.60%; H 3.85%; Cl 45.16%; O 20.38%

Use/Importance: Acetylating agent. Reduces sulfoxides to sulfides. Used in titrimetric detn. of H_2O in org. solns.

Physical Description: Very pungent liq., fuming in air

Melting Point: Mp -112°

Boiling Point: Bp $51-52^\circ$

Solubility: Sol. Et_2O , C_6H_6

Hazard & Toxicity: Highly flammable, fl. p. 4° . Reacts violently with H_2O and DMSO. Lachrymator. Corrosive and irritating to all tissues

Aldrich: 23957-7

Fluka: 1000

Sigma: A0772

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 723A, (ir)

Gmuender, J., *Helv. Chim. Acta*, 1953, **36**, 2021, (synth)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1979, **7**, 3, (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, ACF750

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 4th edn., Butterworths, 1990, 0691

Luxon, S.G., *Hazards in the Chemical Laboratory*, 5th edn., Royal Society of Chemistry, 1992, 5; 11