



>>Entry Name: **2,2-Dichloro-1,1-difluoro-1-methoxyethane**, 9CI

Synonym(s): 2,2-Dichloro-1,1-difluoroethyl methyl ether, 8CI. **Methoxyflurane**, BAN, INN, USAN. Analgizer. Anecotan. Inhalan. Metofane. Penthrane. Pentrane. DA 7591. NSC 110432

CAS Registry Number: 76-38-0

$\text{Cl}_2\text{CHCF}_2\text{OMe}$

Molecular Formula: $\text{C}_3\text{H}_4\text{Cl}_2\text{F}_2\text{O}$

Molecular Weight: 164.966

Accurate Mass: 163.960725

Percentage Composition: C 21.84%; H 2.44%; Cl 42.98%; F 23.03%; O 9.70%

Use/Importance: Inhalation anaesthetic

Physical Description: Liq.

Melting Point: Mp -35°

Boiling Point: Bp 105° . Bp₁₀₀ 51°

Density: d_4^{20} 1.426

Refractive Index: n_D^{20} 1.3861

Calculated Log P Data: Log P 2.2 (calc)

Hazard & Toxicity: Eye irritant. Occup. exposure can damage kidneys and liver. Exp. teratogen

References:

Miller, W.T. *et al.*, *J.A.C.S.*, 1948, **70**, 431, (*synth*)

Park, J.D. *et al.*, *J.A.C.S.*, 1951, **73**, 861, (*ir, uv*)

Speers, L. *et al.*, *J. Med. Chem.*, 1971, **14**, 593, (*synth, props*)

Mazze, R.I. *et al.*, *Int. Anesthesiol. Clin.*, 1974, **12**, 93, (*rev, metab*)

Van Poznak, A., *Monogr. Anaesthesiol.*, 1979, **6**, 113, (*rev*)

Li, Y.S. *et al.*, *J. Mol. Struct.*, 1982, **81**, 181, (*conformn, spectra*)

Carpenter, R.L. *et al.*, *Anesthesiology*, 1986, **65**, 201, (*metab*)

Martindale, *The Extra Pharmacopoeia*, 30th edn., Pharmaceutical Press, 1993, 916

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, DFA400