



>>Entry Name: 1,2-Dichloro-1,1,2,2-tetrafluoroethane, 9Cl, 8Cl

Synonym(s): Fluorocarbon 114. Arcton 114. Freon 114. CFC 114. Frigen 114. Fron 114. Genetron 114. Cryofluorane

CAS Registry Number: 76-14-2

Extra CAS Registry Numbers(s): 1320-37-2

ClCF2CF2Cl

Molecular Formula: $C_2Cl_2F_4$

Molecular Weight: 170.921

Accurate Mass: 169.931316

Percentage Composition: C 14.05%; Cl 41.48%; F 44.46%

Source/Synthesis: Manuf. by the reaction of tetrachloroethene with HF and chlorine over Cr_2O_3 catalyst

Use/Importance: Important aerosol propellant in combination with dichlorodifluoromethane. Refrigerant. Anaesthetic

Physical Description: Gas

Melting Point: Mp -94°

Boiling Point: Bp 3.8°

Density: d_4^0 1.531

Refractive Index: n_D^{25} 1.3092

Calculated Log P Data: Log P 2.85 (calc)

Hazard & Toxicity: Narcotic at high concs. Reacts violently with Al. Production controlled by environmental legislation. OES: long-term 100 ppm; short-term 100 ppm

Aldrich: 29524-8

Supelco: R47-2345

References:

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Brown, F.B. *et al.*, *J. Mol. Spectrosc.*, 1967, **24**, 163, (ir, Raman)

Doucet, J. *et al.*, *J. Chem. Phys.*, 1975, **62**, 355, (uv)

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