



>>Entry Name: Chloromethane, 9CI

Synonym(s): Methyl chloride

CAS Registry Number: 74-87-3

Related CAS Registry Numbers(s): 1111-89-3 6806-86-6

H<sub>3</sub>CCl

Molecular Formula: CH<sub>3</sub>Cl

Molecular Weight: 50.487

Accurate Mass: 49.992327

Percentage Composition: C 23.79%; H 5.99%; Cl 70.22%

Source/Synthesis: Manuf. by chlorination of methane or by liquid-phase hydrochlorination of methanol

Biological Source: A natural chloroalkane prod. by the marine and terrestrial biomass (estimated 5 m t a<sup>-1</sup>). Probably the most abundant natural organohalogen. Accounts for ca. 25% of the chlorine in the atmosphere

Use/Importance: Refrigerant. Methylating reagent used in manuf. of silicones and PbMe<sub>4</sub>, low-temp. solv., extractant.

Biological Use/Importance: Topical anaesthetic

Physical Description: Gas with ethereal odour

Melting Point: Mp -97.7°

Boiling Point: Bp -23.7°

Solubility: Mod. sol. H<sub>2</sub>O

**Hazard & Toxicity:** Extremely flammable, fl. p. -50°, autoignition temp. 625/632°. Ignites or explodes on contact with BrF<sub>3</sub>, BrF<sub>5</sub> and some metals. Effects of acute or chronic exposure often delayed. Mild exp. causes inebriation. Higher conc. produce a range of CNS effects plus gastrointestinal disturbances. Prolonged or repeated exposure to low conc. produces CNS effects which may persist for several months. Exp. reprod. and teratogenic effects. OES: long-term 50 ppm; short-term 100 ppm

Aldrich: 33972-5

Sigma: C6306

Supelco: R43-0450

#### References:

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