



>>Entry Name: (Chloromethylene)dimethylammonium(1+)

Synonym(s): *N*-(Chloromethylene)-*N*-methylethanaminium, 9Cl

CAS Registry Number: 44205-36-9

Related CAS Registry Numbers(s): 4217-95-2 5114-91-0 55688-42-1 119402-59-4

$\text{ClCH}=\text{N}^{(+)}\text{Me}_2$

Molecular Formula: $\text{C}_3\text{H}_7\text{ClN}^{(+)}$

Molecular Weight: 92.548

Accurate Mass: 92.026701

Percentage Composition: C 38.93%; H 7.62%; Cl 38.31%; N 15.13%

>>Derivative: Chloride

CAS Registry Number: 3724-43-4

Molecular Formula: $\text{C}_3\text{H}_7\text{Cl}_2\text{N}$

Molecular Weight: 128

Accurate Mass: 126.995553

Percentage Composition: C 28.15%; H 5.51%; Cl 55.39%; N 10.94%

Source/Synthesis: Obt. from Dimethylformamide [HDM10-C](#) + phosgene, SOCl_2 or PCl_5

Use/Importance: Vilsmeier reagent

Physical Description: Cryst. (DMF)

Melting Point: Mp 140-145°

Other Data: Extremely hygroscopic, hydrol. by H_2O . Stable under N_2 for at least 1 month

Aldrich: 28090-9

Fluka: 25130

>>Derivative: Bromide

CAS Registry Number: 23405-14-3

Molecular Formula: $\text{C}_3\text{H}_7\text{BrClN}$

Molecular Weight: 172.452

Accurate Mass: 170.965037

Percentage Composition: C 20.89%; H 4.09%; Br 46.33%; Cl 20.56%; N 8.12%

Use/Importance: Brominating reagent

Melting Point: Mp 149-151 dec.° (sealed tube)

References:

Bosshard, H.H. *et al.*, *Helv. Chim. Acta*, 1959, **42**, 1653, (*synth, chloride*)

Burn, D., *Chem. Ind. (London)*, 1973, 870, (*rev*)

Hepburn, D.R. *et al.*, *J.C.S. Perkin 1*, 1976, 754, (*synth, chloride, bromide*)

Rabiller, C. *et al.*, *J.C.S. Perkin 2*, 1977, 536, (*pmr, cmr, chloride*)

Fujisawa, T. *et al.*, *Org. Synth.*, 1988, **66**, 121, (*synth, chloride*)

Encyclopaedia of Reagents for Organic Synthesis, (ed. Paquette, L.A.), Wiley, 1995, **3**, 2045-2047, (*rev, use*)

Synthetic Methods of Organometallic and Inorganic Chemistry, (ed. Hermann, W.A.), Thieme, 1996, **3**, 162-165, (*synth, chloride*)