



>>Entry Name: Dimethylmethyleneammonium(1+), 8Cl

Synonym(s): *N*-Methyl-*N*-methylenemethanaminium(1+), 9Cl. *N,N*-Dimethylformaldiammonium(1+)

CAS Registry Number: 28149-27-1

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

Molecular Formula: $\text{C}_3\text{H}_8\text{N}^{(+)}$

Molecular Weight: 58.103

Accurate Mass: 58.065674

Percentage Composition: C 62.02%; H 13.88%; N 24.11%

Use/Importance: Mannich reagent representing the active intermed. in classical Mannich condensations and giving higher yields than traditional procedures

>>Derivative: Chloride

CAS Registry Number: 30354-18-8

Molecular Formula: $\text{C}_3\text{H}_8\text{ClN}$

Molecular Weight: 93.556

Accurate Mass: 93.034526

Percentage Composition: C 38.52%; H 8.62%; Cl 37.89%; N 14.97%

Melting Point: Mp 116°

Aldrich: 32449-3

Fluka: 40766

>>Derivative: Iodide

Synonym(s): Eschenmoser's salt

CAS Registry Number: 33797-51-2

Molecular Formula: $\text{C}_3\text{H}_8\text{IN}$

Molecular Weight: 185.007

Accurate Mass: 184.970147

Percentage Composition: C 19.48%; H 4.36%; I 68.59%; N 7.57%

Use/Importance: Highly active Mannich reagent

Physical Description: Cryst. (sulfolane)

Melting Point: Mp 240° (dec.)

Boiling Point: Subl_{0.001} 120°

Aldrich: 21491-4

Fluka: 40769

Sigma: D2769

>>Derivative: Trifluoroacetate

CAS Registry Number: 25468-31-9

Molecular Formula: $\text{C}_5\text{H}_8\text{F}_3\text{NO}_2$

Molecular Weight: 171.119

Accurate Mass: 171.050713

Percentage Composition: C 35.10%; H 4.71%; F 33.31%; N 8.19%; O 18.70%

Use/Importance: Used in regioselective Mannich condensations

References:

- Aldrich Library of FT-IR Spectra*, 1st edn., 1985, **1**, 814D, (*ir*)
Schreiber, J. *et al.*, *Angew. Chem., Int. Ed.*, 1971, **10**, 330
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 186
Sepelak, D.J. *et al.*, *J.A.C.S.*, 1976, **98**, 6178, (*synth, bibl*)
Holy, N.L. *et al.*, *J.A.C.S.*, 1977, **99**, 944, (*synth, bibl*)
Olah, G.A. *et al.*, *J.O.C.*, 1978, **43**, 860, (*synth, cmr, pmr*)
Bryson, T.A. *et al.*, *J.O.C.*, 1980, **45**, 524, (*synth, ir, bibl*)
Org. Synth., 1980, **59**, 153, (*synth, use, bibl*)
Jahn, U., *Tet. Lett.*, 1993, **34**, 5863, (*chloride*)