



>>Entry Name: Dimethylamine

ENTRY UNDER REVIEW

Synonym(s): *N*-Methylmethanamine, 9CI

CAS Registry Number: 124-40-3

Related CAS Registry Numbers(s): 17000-01-0

Type of Compound Code(s): PG5200 WC0200 VX0100

Me₂NH

Molecular Formula: C₂H₇N

Molecular Weight: 45.084

Accurate Mass: 45.057849

Percentage Composition: C 53.28%; H 15.65%; N 31.07%

Biological Source: Found in higher plants, fungi and bacteria

Use/Importance: Rubber vulcanisation accelerator, tanning agent. Reagent used in the ms determination of the location of ethylenic bonds

Physical Description: Gas at r.t.

Melting Point: Mp -96°

Boiling Point: Bp 7°

Solubility: V. sol. H₂O, sol. EtOH, Et₂O

Density: d₄⁰ 0.68

pKa Value: pK_a 3.28 (25°)

Hazard & Toxicity: Extremely flammable, fl. p. -6°, autoignition temp. 400°. Eye, skin and respiratory tract irritant (gas or aq. solns.) Prolonged exposure can cause dermatitis and conjunctivitis

Aldrich: 29528-0

Fluka: 38950

Sigma: D2647

>>Derivative: Hydrochloride

Synonym(s): Dimethylammonium chloride

CAS Registry Number: 506-59-2

Molecular Formula: C₂H₈ClN

Molecular Weight: 81.545

Accurate Mass: 81.034526

Percentage Composition: C 29.46%; H 9.89%; Cl 43.48%; N 17.18%

Physical Description: Volatile cryst.

Melting Point: Mp 171°

Solubility: Sol. H₂O, EtOH, CHCl₃; insol. Et₂O

Aldrich: 12636-5

Fluka: 38960

Sigma: D2772

>>Derivative: DMSO complex (1:1)

Synonym(s): Dimsulf

Molecular Formula: C₄H₁₃NOS

Molecular Weight: 123.219

Accurate Mass: 123.071784

Percentage Composition: C 38.99%; H 10.63%; N 11.37%; O 12.98%; S 26.02%

Use/Importance: Powerful absorbent for H₂S

Physical Description: Distillable liq.

>>Derivative: *N*-Benzoyl

see *N,N*-Dimethylbenzamide, [KVH62-X](#)

References: