



>>Entry Name: Methylguanidine, 9CI

CAS Registry Number: 471-29-4

Related CAS Registry Numbers(s): 21770-81-0

HN=C(NH2)NHMe

Molecular Formula: $C_2H_7N_3$

Molecular Weight: 73.097

Accurate Mass: 73.063997

Percentage Composition: C 32.86%; H 9.65%; N 57.49%

Source/Synthesis: Prod. of putrefaction

Physical Description: Solid

Other Data: Easily dec. Strong base

>>Derivative: Hydrochloride

CAS Registry Number: 22661-87-6

Physical Description: V. hygroscopic cryst.

Aldrich: 22240-2

Sigma: M0377

>>Derivative: Nitrate

CAS Registry Number: 546-82-7

Physical Description: Cryst. (EtOH)

Melting Point: Mp 151°

>>Derivative: Sulfate salt (2:1)

CAS Registry Number: 598-12-9

Physical Description: Cryst. (H₂O)

Melting Point: Mp 239-240°

>>Derivative: Picrate

CAS Registry Number: 1609-02-5

Physical Description: Yellow plates or needles (H₂O)

Melting Point: Mp 200°

>>Derivative: Ac

Molecular Formula: $C_4H_9N_3O$

Molecular Weight: 115.135

Accurate Mass: 115.074562

Percentage Composition: C 41.73%; H 7.88%; N 36.50%; O 13.90%

Melting Point: Mp 172° (as hydrochloride)

>>Derivative: *N*-Nitroso

Synonym(s): *N*-Methyl-*N*-nitrosoguanidine

CAS Registry Number: 4262-56-0

Molecular Formula: $C_2H_6N_4O$

Molecular Weight: 102.096

Accurate Mass: 102.054161

Percentage Composition: C 23.53%; H 5.92%; N 54.88%; O 15.67%

Use/Importance: In former use as synth. precursor of Diazomethane [CZN91-B](#)

Hazard & Toxicity: Exp. carcinogen

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 1328B, (*nmr*)

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Werner, E.A., *J.C.S.*, 1922, **121**, 1793, (*synth*)

Phillipi, E., *Ber.*, 1927, **60**, 2120, (*synth*)

Davis, T.L. *et al.*, *J.A.C.S.*, 1937, **59**, 2112, (*synth*)

Spasskaya, R.I. *et al.*, *CA*, 1968, **68**, 39059, (*synth*)

Beynon, J.H. *et al.*, *Org. Mass Spectrom.*, 1968, **1**, 169, (*ms*)

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