



>>Entry Name: Cyanogen azide

Synonym(s): Cyanoazide

CAS Registry Number: 764-05-6

$\text{N}\equiv\text{C}-\text{N}=\text{N}=\text{N}$ (C_s)

Molecular Formula: CN_4

Molecular Weight: 68.038

Accurate Mass: 68.012296

Percentage Composition: C 17.65%; N 82.35%

General Statement: Interatomic distances; $\text{C}\equiv\text{N}$ 116.4, C-N 138.9, $\text{CN}=\text{N}$ 123.7, $\text{N}=\text{N}$ 113.3 pm; angle CNN 121°

Source/Synthesis: Synth. from NaN_3 + ClCN in CH_3CN

Physical Description: Oil

Hazard & Toxicity: Detonates readily with great violence

References:

Marsh, F.D. *et al.*, *J.A.C.S.*, 1964, **86**, 4506, (*synth*)

Shurvell, H.F. *et al.*, *J. Chem. Phys.*, 1970, **52**, 881, (*ir, microwave*)

Marsh, F.D., *J.O.C.*, 1972, **37**, 2966, (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, COO250

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 4th edn., Butterworths, 1990, 0516