



>>Entry Name: Sodium cyanate

Synonym(s): Cyanic acid sodium salt, 8Cl

CAS Registry Number: 917-61-3

Na[OCN]

Molecular Formula: CNNaO

Molecular Weight: 65.007

Accurate Mass: 64.987756

Percentage Composition: C 18.48%; N 21.55%; Na 35.37%; O 24.61%

Source/Synthesis: Synth. by reaction of $\text{Hg}(\text{OCN})_2$ and NaI in Me_2CO . Manuf. by oxidation of NaCN at 500-600° with O_2 or by treatment of a sodium salt (Na_2S , Na_2CO_3 , NaCN, Na_2SO_3) with CO_2 or COS and NH_3

Use/Importance: Commercially available. Cyclocondensation agent. Assessed for use in the therapy of sickle cell anaemia. Antineoplastic agent

Physical Description: Colourless hexagonal cryst.

Melting Point: Mp 300°

Solubility: Sol. H_2O (10.7 g per 100 cm^3 at 16°); spar. sol. Et_2O , C_6H_6

Other Data: $\Delta H_f^\circ -400 \text{ kJ mol}^{-1}$. Dec. on heating to form NaCN, Na_2CO_3 , N_2 and CO or CO_2 depending on temp.

Hazard & Toxicity: LD₅₀ (rat, orl) 1500 mg/kg

Aldrich: 18508-6

Fluka: 71420

References:

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Soderback, E., *Acta Chem. Scand.*, 1971, **25**, 3534, (synth)

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