



>>Entry Name: Mercury(II) cyanide oxide

Synonym(s): Basic mercury cyanide. Mercuric oxycyanide

CAS Registry Number: 1335-31-5

$\text{Hg}_2(\text{CN})_2\text{O}$

Molecular Formula: $\text{C}_2\text{Hg}_2\text{N}_2\text{O}$

Molecular Weight: 469.215

Accurate Mass: 471.942297

Percentage Composition: C 5.12%; Hg 85.50%; N 5.97%; O 3.41%

Source/Synthesis: Prepd. from $\text{Hg}(\text{CN})_2 + \text{HgO}$

Use/Importance: Formerly used as a topical antiseptic when mixed with mercuric cyanide to eliminate the danger of explosion

Physical Description: White cryst. (H_2O)

Solubility: Sol. H_2O

Hazard & Toxicity: OES: long-term 0.05 mg m^{-3} ; short-term 0.15 mg m^{-3} (as Hg). LD_{50} (rbt, ivn) 2.5 mg/kg. Explosive, sensitive to impact and heat

References:

Jones, A.J., *Pharm. J.*, 1920, **105**, 87, (synth, props)

Scavnicar, S., *Z. Kristallogr.*, 1963, **118**, 248, (cryst struct)

Karabit, M.S. *et al.*, *Int. J. Pharm.*, 1989, **54**, 51, (activity)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, MDA500

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 4th edn., Butterworths, 1990, 0928