



>>Entry Name: Potassium selenocyanate

Synonym(s): Selenocyanic acid potassium salt, 8Cl

CAS Registry Number: 3425-46-5

K[SeCN]

Molecular Formula: CKNSe

Molecular Weight: 144.076

Accurate Mass: 144.883301

Percentage Composition: C 8.34%; K 27.14%; N 9.72%; Se 54.80%

Source/Synthesis: Synth. by melting together KCN + Se

Use/Importance: Commercially available. Reagent for stereoselective conversion of epoxides to alkenes. Aq. solns. used in the synth. of insol. salts [MSeCN (M = Ag, Cu, Tl) or M(SeCN)₂ (M = Hg₂, Hg, Pb)]

Physical Description: Colourless monoclinic cryst.; deliquescent

Solubility: Sol. H₂O, EtOH

Other Data: Dec. on standing in air or on being heated above 100°

Hazard & Toxicity: Highly toxic

Aldrich: 21618-6

Fluka: 60531

Sigma: P5900

References:

Inorg. Synth., 1946, **2**, 186, (*synth*)

Morgan, H.W., *J. Inorg. Nucl. Chem.*, 1961, **16**, 367, (*ir*)

Swank, D.D. *et al.*, *Inorg. Chem.*, 1965, **4**, 499, (*cryst struct*)

Pan, W.H. *et al.*, *J.A.C.S.*, 1978, **100**, 5783, (*Se-77 nmr*)

Clive, D.L., *Tetrahedron*, 1978, **34**, 1049, (*uses*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 417, (*use*)

Sigma-Aldrich Library of Chemical Safety Data, 1988, **2**, 2909A, (*haz*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, PLS000