



>>Entry Name: Sodium arsenenite, 9Cl

Synonym(s): Sodium arsenite, 8Cl. Sodium metaarsenite. Arsenic sodium oxide (AsNaO₂). Arsenious acid (HAsO₂) sodium salt, 8Cl

CAS Registry Number: 7784-46-5

Related CAS Registry Numbers(s): 17306-35-3

NaAsO₂

Molecular Formula: AsNaO₂

Molecular Weight: 129.91

Accurate Mass: 129.901191

Percentage Composition: As 57.67%; Na 17.70%; O 24.63%

Source/Synthesis: Synth. from AsO₃-NaOH melt

Use/Importance: Commercially available. Herbicide. Used in electroplating of coinage metals

Physical Description: Thin flakes (from melt)

Solubility: V. sol. H₂O; spar. sol. EtOH

Hazard & Toxicity: V. toxic

Aldrich: 40737-2

Fluka: 71287

Sigma: S7400

>>Derivative: Tetrahydrate

CAS Registry Number: 111373-27-4

Source/Synthesis: Synth. from Na₂O-As₂O₃-H₂O system at 6°

Other Data: The polymetaarsenite anion consists of doublets of single -(O-As)- chains with As-O 183.0-183.8 pm (chain), 171.2 pm (terminal)

>>Variant: Monomeric-form

Molecular Formula: AsNaO₂

Molecular Weight: 129.91

Accurate Mass: 129.901191

Percentage Composition: As 57.67%; Na 17.70%; O 24.63%

Source/Synthesis: Synth. by vaporisation of Na₂CO₃-As₂O₃ mixture

Other Data: May possess a 4-membered As(O)₂Na ring system

References:

Gmelin Handbook Inorg. Chem., Syst. No. 21, 1928, 935; Suppl. Vol., 1967, 4, 1687, (rev, bibl)

Menary, J.W., *Acta Cryst.*, 1958, **11**, 742, (*cryst struct*)

Miller, F.A. *et al.*, *Spectrochim. Acta*, 1960, **16**, 135, (*ir*)

Wagner, C.D. *et al.*, *Anal. Chem.*, 1972, **44**, 967; 1980, **52**, 1445, (*pe, Auger*)

Stec, W.J. *et al.*, *Inorg. Chem.*, 1972, **11**, 219, (*pe*)

Copenhafer, W.C. *et al.*, *J.A.C.S.*, 1978, **100**, 3776, (*O-17 nmr*)

Ogden, J.S. *et al.*, *J.C.S. Dalton*, 1982, 825, (*synth, ir, struct*)

Sheldrick, W. *et al.*, *Z. Anorg. Allg. Chem.*, 1987, **549**, 177, (*synth, cryst struct*)

Sigma-Aldrich Library of Chemical Safety Data, 1988, **2**, 3145D

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, SEY500; SEZ000