



>>Entry Name: Potassium sulfite (K_2SO_3)

ENTRY UNDER REVIEW

Synonym(s): Sulfurous acid dipotassium salt, 8Cl

CAS Registry Number: 10117-38-1

K_2SO_3

Molecular Formula: $\text{K}_2\text{O}_3\text{S}$

Molecular Weight: 158.261

Accurate Mass: 157.884229

Percentage Composition: K 49.41%; O 30.33%; S 20.26%

Source/Synthesis: Synth. from SO_2 + KOH in the presence of H_2

Use/Importance: Commercially available. Used in photographic developing solns.

Physical Description: Colourless hexagonal cryst.

Solubility: V. sol. H_2O

Hazard & Toxicity: Irritant

Aldrich: 28981-7

Fluka: 60545

Sigma: P7050

>>Derivative: Dihydrate

CAS Registry Number: 7790-56-9

Molecular Formula: $\text{H}_4\text{K}_2\text{O}_5\text{S}$

Molecular Weight: 194.291

Accurate Mass: 193.905359

Percentage Composition: H 2.08%; K 40.25%; O 41.17%; S 16.50%

Source/Synthesis: Cryst. from aq. solns. of K_2SO_3

Physical Description: Pale yellow hexagonal cryst., dec. on heating with loss of H_2O

Solubility: V. sol. H_2O

References:

Inorg. Synth., 1946, **2**, 162, (synth)

Seibert, H., *Z. Anorg. Allg. Chem.*, 1954, **275**, 225, (ir, Raman)

Rasch, R., *Sprechsaal Keram., Glas, Email, Silik.*, 1970, **103**, 117; *CA*, **72**, 125755, (thermodyn)

Archer, C. *et al.*, *Can. J. Chem.*, 1979, **57**, 899, (cryst struct, synth)

Peter, L. *et al.*, *Inorg. Chem.*, 1985, **24**, 3071, (ir, Raman)

Masson, M.R., *Solubility Data Ser.*, 1986, **26**, 90, (soly)

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

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, PLT500