



>>Entry Name: Silver(I) sulfate (Ag₂SO₄)

CAS Registry Number: 10294-26-5

Ag₂SO₄

Molecular Formula: Ag₂O₄S

Molecular Weight: 311.8

Accurate Mass: 309.761914

Percentage Composition: Ag 69.19%; O 20.53%; S 10.28%

Use/Importance: Commercially available

Physical Description: Cryst. or powder which darkens on exp. to light

Melting Point: Mp 657°

Solubility: Spar. sol. H₂O; sol. HNO₃, NH₃, conc. H₂SO₄

Other Data: Dec. at 1085°

Aldrich: 22567-3

Fluka: 85280

Sigma: S7638

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 1234B, (ir)

Hsieh, S.L. *et al.*, *CA*, **54**, 5312c, (synth)

Richards, T.W. *et al.*, *Z. Anorg. Allg. Chem.*, 1907, **55**, 72, (synth)

Herrmann, K. *et al.*, *Z. Kristallogr.*, 1931, **80**, 402, (cryst struct, β-form)

Haq, M.I. *et al.*, *Nature (London)*, 1936, **137**, 907, (uv)

Prasad, M. *et al.*, *Proc. Indian Acad. Sci., Sect. A, Sect. A*, 1950, **31**, 389, (magnetism)

Fischmeister, H.F., *Z. Phys. Chem. (Leipzig)*, 1956, **7**, 91, (cryst struct, α-form)

Lietzke, M.H. *et al.*, *J. Inorg. Nucl. Chem.*, 1966, **28**, 1877, (soly)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 1015, (use)

Baron, E.J. *et al.*, *Spectrochim. Acta A*, 1968, **24**, 288, (ir)

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