



>>Entry Name: Mercury(II) sulfate (HgSO₄)

Synonym(s): Sulfuric acid mercury (1:1) salt. Mercuric sulfate

CAS Registry Number: 7783-35-9

Related CAS Registry Numbers(s): 13766-44-4

HgSO₄

Molecular Formula: HgO₄S

Molecular Weight: 296.654

Accurate Mass: 297.922347

Percentage Composition: Hg 67.62%; O 21.57%; S 10.81%

Source/Synthesis: Synth. from Hg in conc. H₂SO₄

Use/Importance: Alkylation, sulfonation, esterification and hydration catalyst

Physical Description: Light-sensitive white cryst.

Solubility: Sol. HCl, dil. H₂SO₄, conc. NaCl

Aldrich: 20009-3

Fluka: 83384

Sigma: M7029

>>Derivative: Monohydrate

CAS Registry Number: 14518-29-7

Source/Synthesis: Obt. by slow evap. of HgSO₄ in 2M H₂SO₄

Physical Description: Cryst.

Other Data: Struct. contains discrete HgSO₄·H₂O units [Hg coord. to OH₂ and to O of SO₄ and to 4 more distant oxygens]. H bonding provides 3-D struct.

References:

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Shokarev, M.M. *et al.*, *Zh. Strukt. Khim.*, 1970, **11**, 151, (*ir*)

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Tariq, S.A. *et al.*, *J. Therm. Anal.*, 1981, **21**, 277, (*thermal anal*)

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