



>>Entry Name: Germanium(IV) sulfide (GeS₂)

Synonym(s): Germanium disulfide

CAS Registry Number: 12025-34-2

GeS₂

Molecular Formula: GeS₂

Molecular Weight: 136.742

Accurate Mass: 137.865317

Percentage Composition: Ge 53.10%; S 46.90%

Physical Description: White powder or white orthorhombic cryst.

Melting Point: Mp 800°

Boiling Point: Subl. 600°

Solubility: Sol. H₂O (dec.). Sol. alkali; sl. sol. NH₄OH, NH₃

Other Data: Reacts with H₂O on heating → GeO₂ + 2H₂S

References:

Dittmar, G. *et al.*, *Acta Cryst. B*, 1976, **32**, 1188, (*cryst struct*)

Nicolic, P.M., *Infrared Phys.*, 1982, **22**, 181, (*ir*)

Arai, K., *J. Non-Cryst. Solids*, 1983, **59-60**, 1059, (*Raman, struct*)

Melling, P.J., *Am. Ceram. Soc. Bull.*, 1984, **63**, 1427, (*synth*)

Andraschke, M. *et al.*, *Rostocker Phys. Manusk.*, 1985, **7**, 38, (*struct*)