



>>Entry Name: Magnesium sulfide (MgS), 8CI

CAS Registry Number: 12032-36-9

MgS

Molecular Formula: MgS

Molecular Weight: 56.371

Accurate Mass: 55.957112

Percentage Composition: Mg 43.12%; S 56.88%

Source/Synthesis: Prepd. by heating a mixt. of MgO-FeS-C to 1750°

Physical Description: Moisture-sensitive pale red-brown cubic cryst. Reacts with H₂O with evolution of H₂S

Melting Point: Mp 2025°

Other Data: $\Delta H_f^\circ -346 \text{ kJ mol}^{-1}$; $\Delta G_f^\circ -341 \text{ kJ mol}^{-1}$; $S^\circ 50.3 \text{ J K}^{-1} \text{ mol}^{-1}$

Aldrich: 41508-1

References:

Güntert, O.J. *et al.*, *Z. Kristallogr.*, 1956, **107**, 357, (*cryst struct*)

Vert, Zh.L. *et al.*, *Zh. Neorg. Khim.*, 1957, **2**, 1701, (*synth*)

Innes, K.K., *Sci. Tech. Aerosp. Rept.*, 1964, **2**, 2620; *CA*, 1965, **62**, 6023b, (*uv*)

Chase, M.W. *et al.*, *J. Phys. Chem. Ref. Data*, 1985, **14**, 1486, (*thermochem data*)

Hellmut, E. *et al.*, *J.A.C.S.*, 1986, **108**, 2140, (*S-33 nmr*)