



>>Entry Name: Magnesium hydride (MgH₂), 8CI

CAS Registry Number: 7693-27-8

MgH₂

Molecular Formula: H₂Mg

Molecular Weight: 26.321

Accurate Mass: 26.000692

Percentage Composition: H 7.66%; Mg 92.34%

Source/Synthesis: Prepd. by direct reaction of the elements

Use/Importance: Commercially available dispersed (30 wt %) in mineral oil. Powerful reducing agent

Physical Description: Moisture sensitive white tetrahedral cryst. Reacts violently with H₂O with evolution of H₂. Dec. on heating to the constituent elements

Other Data: $\Delta H_f^\circ -76 \text{ kJ mol}^{-1}$; $\Delta G_f^\circ -37 \text{ kJ mol}^{-1}$; $S^\circ 31.1 \text{ J K}^{-1} \text{ mol}^{-1}$

Hazard & Toxicity: Flammable, corrosive

Aldrich: 46702-2

References:

Guntzsch, A., *Z. Phys.*, 1937, **104**, 584, (*uv*)

Ellinger, F.H. *et al.*, *J.A.C.S.*, 1955, **77**, 2647, (*cryst struct*)

Mal'tseva, N.N. *et al.*, *Zh. Neorg. Khim.*, 1962, **7**, 947, (*ir*)

Chase, M.W. *et al.*, *J. Phys. Chem. Ref. Data*, 1985, **14**, 1266, (*thermochem data*)

Knott, W. *et al.*, *Z. Naturforsch., B*, 1998, **53**, 459-468, (*use, reduction of metal halides*)