



>>Entry Name: Lithium amide (LiNH₂), 8Cl

CAS Registry Number: 7782-89-0

LiNH₂

Molecular Formula: H₂LiN

Molecular Weight: 22.963

Accurate Mass: 23.034727

Percentage Composition: H 8.78%; Li 30.23%; N 61.00%

Source/Synthesis: Prepd. from Li + NH₃

Use/Importance: Commercially available. Polym. catalyst. Used as an auxilliary base for reactions of carbon hydrogen acidic compds.

Physical Description: Colourless cubic cryst. Moisture sensitive. Reacts with H₂O to form LiOH and NH₃. Reacts with N₂O to form LiN₃ with evolution of H₂O

Melting Point: Mp 380-400°

Solubility: Spar. sol. EtOH; insol. Et₂O, C₆H₆

Other Data: ΔH_f° -182 kJ mol⁻¹

Hazard & Toxicity: Flammable, corrosive

Aldrich: 21321-7

Fluka: 62440

Sigma: L4758

References:

Sigma-Aldrich Library of Chemical Safety Data, **2**, 2150B

Rossini, F.D. *et al.*, *Natl. Bur. Stand. Circ. (U.S.)*, No. 500, 1952, 440, (*thermochem data*)

Gmelin Handbook Inorg. Chem., Syst. No. 20, 1960, 279, (*rev, bibl*)

Jacobs, H. *et al.*, *Z. Anorg. Allg. Chem.*, 1972, **391**, 271, (*cryst struct*)

Bick, M., *Lect. Hydride Symp.*, 3rd, 1979, 183; *CA*, 1981, **94**, 64637, (*base props*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, LGT000