



>>Entry Name: Manganese(II) bromide (MnBr<sub>2</sub>)

Synonym(s): Manganese dibromide. Manganese bromide

CAS Registry Number: 13446-03-2

MnBr<sub>2</sub>

Molecular Formula: Br<sub>2</sub>Mn

Molecular Weight: 214.746

Accurate Mass: 212.814719

Percentage Composition: Br 74.42%; Mn 25.58%

Source/Synthesis: Synth. from MnCO<sub>3</sub> and HBr aq. followed by dehydration at 100° and drying in HBr gas at 725°. Alternatively obt. from Mn(OAc)<sub>2</sub>·4H<sub>2</sub>O and AcBr in C<sub>6</sub>H<sub>6</sub>

Use/Importance: Commercially available

Physical Description: Pink hygroscopic solid

Melting Point: Mp 698° (695°)

Solubility: V. sol. H<sub>2</sub>O

Other Data: Does not obey Curie or Curie-Weiss law at normal temps.  $T_N$  2.16K.  $\mu_{\text{eff}} = 5.82\mu_B$  (298K). Forms complexes with donor molecules

Aldrich: 22364-6

Fluka: 63551

>>Derivative: Tetrahydrate

#### References:

Watt, G.W. *et al.*, *J.A.C.S.*, 1955, **77**, 2752, (*synth*)

Brewer, L. *et al.*, *Chem. Rev.*, 1963, **63**, 111, (*mp*)

Hadley, W.B. *et al.*, *J. Chem. Phys.*, 1963, **39**, 2205, (*synth, magnetism*)

Seifert, H.J. *et al.*, *Z. Anorg. Allg. Chem.*, 1972, **391**, 302, (*struct*)

*Gmelin Handbook Inorg. Chem., Syst. No. 56*, 1978, **C5**, 264; 1983, **C10**, 45, (*rev, bibl, uv-vis*)