



>>Entry Name: Manganese(II) perchlorate (Mn(ClO₄)₂)

Synonym(s): Manganese perchlorate

CAS Registry Number: 13770-16-6

Related CAS Registry Numbers(s): 15305-65-4 15364-94-0

Mn(ClO₄)₂

Molecular Formula: Cl₂MnO₈

Molecular Weight: 253.839

Accurate Mass: 252.835071

Percentage Composition: Cl 27.93%; Mn 21.64%; O 50.42%

Source/Synthesis: Synth. from Mn(NO₃)₂ and anhyd. HClO₄ or from MnBr₂ and AgClO₄ in Et₂O

Physical Description: White powder

Solubility: Sol. H₂O, MeOH, MeCN, DMF, DMSO

Hazard & Toxicity: Potentially explosive

>>Derivative: Dihydrate

CAS Registry Number: 67460-77-9

Source/Synthesis: Synth. by heating the hexahydrate at 100° *in vacuo*

Physical Description: Pale pink cryst.

>>Derivative: Tetrahydrate

Source/Synthesis: Synth. by heating the hexahydrate at 100°

Physical Description: Pale pink cryst.

>>Derivative: Hexahydrate

Synonym(s): Manganese perchlorate hexahydrate. Hexaaquamanganese(II) perchlorate

CAS Registry Number: 15364-94-0

Source/Synthesis: Synth. from MnCO₃ and HClO₄ aq., or from MnSO₄ and Ba(ClO₄)₂, or from Mn and 70% HClO₄

Use/Importance: Commercially available

Physical Description: Pale pink cryst.

Other Data: Hexagonal struct. similar to Mg(ClO₄)₂·6H₂O presumably containing [Mn(OH₂)₆]²⁽⁺⁾

Aldrich: 35938-6

Fluka: 63550

References:

Monnier, G., *Ann. Chim. (Paris)*, 1957, **2**, 14, (*synth*)

Hathaway, B.J. *et al.*, *J.C.S.*, 1960, 648; 1963, 4586, (*synth, dihydrate, ir*)

Klanberg, F. *et al.*, *Inorg. Chem.*, 1963, **1**, 139, (*Cl-35 nmr*)

Lohr, L.L. *et al.*, *J. Chem. Phys.*, 1968, **49**, 3516, (*uv*)

Libus, Z. *et al.*, *J. Phys. Chem.*, 1969, **73**, 3229, (*synth, struct*)

Purcell, W.L. *et al.*, *Inorg. Chem.*, 1970, **9**, 1724, (*synth, hexahydrate*)

Glasner, A. *et al.*, *J. Inorg. Nucl. Chem.*, 1970, **32**, 33, (*synth*)

Nikitin, U.D. *et al.*, *CA*, 1971, **75**, 157697, (*synth, dihydrate, tetrahydrate*)

Kong, P.-C. *et al.*, *Can. J. Chem.*, 1971, **49**, 2442, (*props*)

Gmelin Handbook Inorg. Chem., Syst. No. 56, 1978, **C5**, 245, (*rev, bibl*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, MAT899; MAU000