>>**Entry Name: Manganese(*III*) sulfate ($Mn_2(SO_4)_3$),** 11Cl

CAS Registry Number: 13444-72-9
Extra CAS Registry Numbers(s): 10124-55-7
$Mn_2(SO_4)_3$

Molecular Formula: $Mn_2O_{12}S_3$
Molecular Weight: 398.067
Accurate Mass: 397.731284
Percentage Composition: Mn 27.60%; O 48.23%; S 24.17%
Source/Synthesis: Synth. from $KMnO_4$, MnO_2 or Mn_2O_3 in hot conc. H_2SO_4
Use/Importance: Oxidising agent
Physical Description: Dark green hygroscopic needles
Melting Point: Mp 300 dec.°
Solubility: Sol. conc. H_2SO_4 (75.25%)
Other Data: $Mn_2(SO_4)_3.H_2SO_4.nH_2O$ crystallises as a brown salt from 70% H_2SO_4. Hydrol. occurs at <52% H_2SO_4. Mn_2O_7 formed during synth. using $KMnO_4$

References:

Kemp, T.J. *et al.*, *J.C.S.*, 1964, 339; 1489, *(oxidising props)*
Brauer, G.*, Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **3**, 1589, *(synth)*
Gmelin Handbook Inorg. Chem., *Syst. No.* 56, 1976, **C6**, 172, *(rev, bibl)*