



>> **Name: Ammonium bisulfate, 9CI**

Synonym(s): Ammonium hydrogen sulfate

CAS Registry Number: 7803-63-6

NH_4HSO_4

Molecular Formula: $\text{H}_5\text{NO}_4\text{S}$

Molecular Weight: 115.11

Accurate Mass: 114.993929

Percentage Composition: H 4.38%; N 12.17%; O 55.60%; S 27.86%

Source/Synthesis: Synth. from $(\text{NH}_4)_2\text{SO}_4 + \text{H}_2\text{SO}_4$

Physical Description: Deliquescent powder

Melting Point: Mp 147°

Solubility: Freely sol. H_2O ; insol EtOH, Me_2CO , Py

Other Data: Forms a ferroelectric phase at -3°

References:

Gmelin Handbook Inorg. Chem., 8th edn., 1936, **23**, 293-298

Burns, G. *et al.*, *Phys. Rev.*, 1961, **123**, 64-66, (*pmr*)

Nelmes, R.J., *Acta Cryst. B*, 1971, **27**, 272-281, (*cryst struct*)

Dhamelincourt, P. *et al.*, *Bull. Soc. Chim. Fr.*, 1971, 2849-2852, (*ir, Raman*)

Nelmes, R.J. *et al.*, *Ferroelectrics*, 1972, **4**, 133-140, (*cryst struct, ferroelectric props*)