



>>Entry Name: **Diammonium sulfite**, 9CI

Synonym(s): Ammonium sulfite

CAS Registry Number: 10196-04-0

$(\text{NH}_4)_2\text{SO}_3$

Molecular Formula: $\text{H}_8\text{N}_2\text{O}_3\text{S}$

Molecular Weight: 116.141

Accurate Mass: 116.025563

Percentage Composition: H 6.94%; N 24.12%; O 41.33%; S 27.61%

Source/Synthesis: Formed by dehydration of the monohydrate in a desiccator

Physical Description: V. deliquescent cryst.

Boiling Point: Subl. 150°

>>Derivative: Monohydrate

CAS Registry Number: 7783-11-1

Molecular Formula: $\text{H}_{10}\text{N}_2\text{O}_4\text{S}$

Molecular Weight: 134.156

Accurate Mass: 134.036128

Percentage Composition: H 7.51%; N 20.88%; O 47.70%; S 23.90%

Source/Synthesis: Synth. by passing SO_2 into aq. NH_3

Physical Description: Efflorescent cryst.

Solubility: Sol. H_2O ; insol, EtOH, Me_2CO

References:

Divers, E. *et al.*, *J.C.S.*, 1900, **77**, 336-340, (*synth*)

Miller, F.A. *et al.*, *Spectrochim. Acta A*, 1960, **16**, 135-235, (*ir*)

Durand, J. *et al.*, *Acta Cryst. B*, 1977, **33**, 1414-1417, (*cryst struct, monohydrate*)

Cooper, D. *et al.*, *Eur. J. Solid State Inorg. Chem.*, 1989, **26**, 129-136, (*synth, ir, cryst struct*)

Degen, I.A. *et al.*, *Spectrochim. Acta A*, 1993, **49**, 859-887, (*Raman*)