



>> **Name: Ammonium sulfide ((NH₄)₂S),** 10Cl, 9Cl

ENTRY UNDER REVIEW

Synonym(s): Diammonium sulfide. FEMA 2053

CAS Registry Number: 12135-76-1

[NH₄]₂S

Molecular Formula: H₈N₂S

Molecular Weight: 68.143

Accurate Mass: 68.040818

Percentage Composition: H 11.83%; N 41.11%; S 47.06%

Source/Synthesis: Formed from NH₃/H₂O + H₂S

Use/Importance: Commercially available as soln. Used in photographic developers, textile manuf. to apply patina to bronze, and in trace metal analysis

Physical Description: Below –18° stable. Yellow hygroscopic cryst.

Solubility: Sol. H₂O

Other Data: Dec. to NH₃ + NH₄SH, polysulfides

Hazard & Toxicity: Toxic. Pyrophoric in air

Aldrich: 30941-9

Fluka: 9981

Sigma: A1952

References:

Mellor Compr. Treat. Inorg. Theor. Chem., 1928, **2**, 645; *Part I*, 1964, **8/1**, 469, (rev)

Merck Index, 11th edn., 1989, No. 585, (props, uses)

Fenaroli's Handbook of Flavor Ingredients, 3rd edn., (ed. Burdock, G.A.), CRC Press, 1995, **2**, 35

Encyclopedia of Food and Color Additives, (ed. Burdock, G.A.), CRC Press, 1997, 146-147

Sax, N.I. *et al.*, *Dangerous Properties of Industrial Materials*, 7th edn., Van Nostrand Reinhold, 1989, 243; 244, (haz)