



>>Entry Name: Ammonium hydroxide ((NH₄)(OH)), 11Cl, 10Cl, 9Cl

ENTRY UNDER REVIEW

Synonym(s): Ammonia aqueous. Aqua ammonia

CAS Registry Number: 1336-21-6

NH₃.H₂O rather than NH₄OH

Molecular Formula: H₅NO

Molecular Weight: 35.046

Accurate Mass: 35.037114

Percentage Composition: H 14.38%; N 39.97%; O 45.65%

General Statement: Name given to aq. soln. of Ammonia [JRZ20-I](#)

Use/Importance: Commercially available

Physical Description: Colourless liq.

Melting Point: Mp -77°

Solubility: Sol. H₂O

Density: d²⁰ 0.889297

Hazard & Toxicity: Corrosive. V. pungent odour, poison by ingestion. Severe eye irritant. Can inflict burns

Aldrich: 38053-9

Fluka: 9870

Sigma: A9315

>>**Derivative:** Penta-deutero compd.

CAS Registry Number: 12168-30-8

Molecular Formula: D₅NO

Molecular Weight: 40.077

Source/Synthesis: Synth. from ND₃ + D₂O

Aldrich: 17670-2

References:

Mellor Compr. Treat. Inorg. Theor. Chem., 1928, 194; 1964, **8/I**, 311, (rev)

Gmelin Handbook Inorg. Chem., Syst. No. 23, 1936, 42, (bibl)

Herber, R.H., *Inorg. Isot. Synth.*, Benjamin, 1962, 47, (deutero deriv)

Compr. Inorg. Chem., Pergamon, Oxford, 1973, **2**, 224, (struct, rev)

Encyclopedia of Food and Color Additives, (ed. Burdock, G.A.), CRC Press, 1997, 137-138

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, ANK250