



>>Entry Name: Ammonium iodide

CAS Registry Number: 12027-06-4

[NH₄]I

Molecular Formula: H₄IN

Molecular Weight: 144.943

Accurate Mass: 144.938847

Percentage Composition: H 2.78%; I 87.55%; N 9.66%

General Statement: Fcc struct.

Source/Synthesis: From NH₃ + HI

Use/Importance: Commercially available. Used in photographic chemicals

Physical Description: Colourless, deliquescent cryst.

Melting Point: Mp 551°

Solubility: V. sol. H₂O, NH₃ (liq.)

Other Data: Subl. on heating

Hazard & Toxicity: Irritant

Aldrich: 20346-7

Fluka: 9875

Sigma: A8420

>>Derivative: Deutero compd.

Synonym(s): Ammonium iodide-*d*₄. Perdeuteroammonium iodide

CAS Registry Number: 12422-60-5

Molecular Formula: D₄IN

Molecular Weight: 148.968

Source/Synthesis: Formed from ND₃ + DI

Use/Importance: Commercially available

Physical Description: White cryst.

Solubility: V. sol. H₂O

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 1248C, (*ir*)

Gmelin Handbook Inorg. Chem., Syst. No. 23, 1936, 222, (*rev, bibl*)

Mellor Compr. Treat. Inorg. Theor. Chem., Longman, London, Part 1, 1964, **8/I**, 448, (*rev*)

Brauer, G., *Handb. Prep. Inorg. Chem.*, 2nd edn., Academic Press, 1965, **1**, 289, (*synth*)

Maxey, W. *et al.*, *J.A.C.S.*, 1969, **91**, 20, (*deutero, ir, Raman*)

Kirk-Othmer Encycl. Chem. Technol., 3rd edn., Wiley, 1978, **2**, 524