



>> **Name:** Ammonium iodide

CAS Registry Number: 12027-06-4

$[\text{NH}_4]\text{I}$

Molecular Formula: H_4IN

Molecular Weight: 144.943

Accurate Mass: 144.938847

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

Source/Synthesis: From $\text{NH}_3 + \text{HI}$

Use/Importance: Commercially available. Used in photographic chemicals

Physical Description: Colourless, deliquescent cryst.

Melting Point: Mp 551°

Solubility: V. sol. H_2O , NH_3 (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: D_4IN

Molecular Weight: 148.968

Source/Synthesis: Formed from $\text{ND}_3 + \text{DI}$

Use/Importance: Commercially available

Physical Description: White cryst.

Solubility: V. sol. H_2O

References:

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

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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)

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