



>> **Name: Ammonium phosphate ((NH₄)₂HPO₄)**

ENTRY UNDER REVIEW

Synonym(s): Diammonium phosphate, 9CI, 8CI. Diammonium hydrogen phosphate ((NH₄)₂HPO₄). Ammonium phosphate, USAN

CAS Registry Number: 7783-28-0

Extra CAS Registry Numbers(s): 10124-31-9

(NH₄)₂HPO₄

Molecular Formula: H₉N₂O₄P

Molecular Weight: 132.056

Accurate Mass: 132.029995

; P 23.46%

⁽⁺⁾ tetrahedra with P-O 151.9-158.7 pm, angle: OPO 103.6-113.2°

Use/Importance: Corrosion inhibitor. Employed also in fertilisers, fire-extinguishing and fire-proofing compositions, and in animal feeds

Biological Use/Importance: Pharmaceutic aid

Melting Point: Mp 185 dec.°

Aldrich: 21599-6

Fluka: 9842

Sigma: A9440

>>**Variant:** α-form

Synonym(s): High temp.-form

Molecular Formula: H₉N₂O₄P

Molecular Weight: 132.056

Accurate Mass: 132.029995

Percentage Composition: H 6.87%; N 21.21%; O 48.46%; P 23.46%

Source/Synthesis: Obt. from β-form at 145° (with prevention of NH₃ loss)

Other Data: Reverts to β-form at *ca.* 100°

>>**Variant:** β-form

Synonym(s): Low temp.-form

Molecular Formula: H₉N₂O₄P

Molecular Weight: 132.056

Accurate Mass: 132.029995

Percentage Composition: H 6.87%; N 21.21%; O 48.46%; P 23.46%

Physical Description: Colourless cryst.

References:

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