



>>Entry Name: Monoammonium arsenate, 9Cl, 8Cl

Synonym(s): Ammonium dihydrogen orthoarsenate. Ammonium arsenate ((NH₄)H₂AsO₄)

CAS Registry Number: 13462-93-6

(NH₄)H₂AsO₄

Molecular Formula: AsH₆NO₄

Molecular Weight: 158.973

Accurate Mass: 158.951278

Percentage Composition: As 47.13%; H 3.80%; N 8.81%; O 40.26%

^(c) tetrahedra have As-O 168.2 pm, and OAsO 4 x 111.08°, 2 x 108.67°

Source/Synthesis: Synth. from As₂O₅ + (NH₄)₂CO₃ aq.; or from H₃AsO₄ + NH₃

Use/Importance: Piezoelectric. Commercially available

Physical Description: Large colourless prisms

Solubility: Sol. H₂O (33.7 g per 100 cm³ at 0°, 48.7 g per 100 cm³ at 20°, 122.4 g per 100 cm³ at 90°)

Other Data: Exhibits complex structural behaviour between r.t. and 450°, but final product of thermal dec. is As₂O₅. Diamagnetic

References:

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