



>>Entry Name: Dimethylarsinic acid, 9CI

Synonym(s): Cacodylic acid. Hydroxydimethylarsine oxide. Ansar. Phytar. Many other names

CAS Registry Number: 75-60-5

Related CAS Registry Numbers(s): 53106-49-3 69486-80-2

Me₂As(O)OH

Molecular Formula: C₂H₇AsO₂

Molecular Weight: 137.998

Accurate Mass: 137.966199

Percentage Composition: C 17.41%; H 5.11%; As 54.29%; O 23.19%

General Statement: Possesses H-bonded centrosymmetric dimer struct.

Source/Synthesis: Common metab. of arsenite and arsenate. Synth. from Me₂AsX (X = Cl, I)

Use/Importance: Herbicide, has been used in chronic eczema and as a tonic

Physical Description: Colourless odourless cryst. (MeOH, 2-propanol, EtOH)

Melting Point: Mp 192°. Mp 200°

Solubility: V. sol. H₂O; sol. EtOH; insol. Et₂O

pKa Value: pK_a 6.15 (25°)

Hazard & Toxicity: Skin and eye irritant. LD₅₀ (rat, orl) 644 mg/kg. Exp. reprod. and teratogenic effects. Tumour promoting props.

Aldrich: 27183-7

Fluka: 20835

Rare Chemicals Library: S39018-6

Sigma: C0125

>>Derivative: Na salt

CAS Registry Number: 124-65-2

Molecular Formula: C₂H₆AsNaO₂

Molecular Weight: 159.979

Percentage Composition: C 15.02%; H 3.78%; As 46.83%; Na 14.37%; O 20.00%

Other Data: Used as a defoliant

Aldrich: 23385-4

Fluka: 20838

Rare Chemicals Library: S60051-2

Sigma: C0250

>>Derivative: Propyl ester

Synonym(s): Propyl dimethylarsinate. Dimethylpropoxyarsine oxide

CAS Registry Number: 70096-42-3

Molecular Formula: C₅H₁₃AsO₂

Molecular Weight: 180.078

Accurate Mass: 180.013149

Percentage Composition: C 33.35%; H 7.28%; As 41.61%; O 17.77%

Physical Description: Solid

Melting Point: Mp 37-38°

Boiling Point: Bp_{0.015} 109-110°

>>Derivative: Butyl ester

Synonym(s): Butyl dimethylarsinate. Butoxydimethylarsine oxide

CAS Registry Number: 16270-48-7

Molecular Formula: C₆H₁₅AsO₂

Molecular Weight: 194.105

Accurate Mass: 194.028799

Percentage Composition: C 37.13%; H 7.79%; As 38.60%; O 16.49%

Physical Description: Liq.

Boiling Point: Bp₁ 132°

References: