



>>Entry Name: Arsenic acid

Synonym(s): Trihydroxyoxoarsenic(V). Orthoarsenic acid

CAS Registry Number: 7778-39-4

Related CAS Registry Numbers(s): 15584-04-0 28573-57-1 29285-22-1 29285-23-2

O=As(OH)₃

Molecular Formula: AsH₃O₄

Molecular Weight: 141.943

Accurate Mass: 141.924729

Percentage Composition: As 52.78%; H 2.13%; O 45.09%

General Statement: Tribasic acid. Various metal salts (arsenates) have separate entries.

pKa Value: pK_{a1} 2.26; pK_{a2} 6.76; pK_{a3} 11.29 (25°, H₂O at)

Other Data: Reacts with Na₂S₂O₃ or H₂S → As₂S₅; SO₂ → As₂O₃

>>Derivative: Hydrate (2:1)

Source/Synthesis: Synth. from As₂O₃ + HNO₃ aq., and cryst. at 0-5° from conc. solns. Also from dihydrate at -30°

Physical Description: Large, transparent, hygroscopic cryst.

Melting Point: Mp 35-36°

Other Data: Partially dehydrates easily at 36°. Monoclinic

References:

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