



>>Entry Name: Zinc arsenate ($\text{Zn}_3(\text{AsO}_4)_2$)

CAS Registry Number: 13464-44-3

$\text{Zn}_3(\text{AsO}_4)_2$

Molecular Formula: $\text{As}_2\text{O}_8\text{Zn}_3$

Molecular Weight: 474.008

Accurate Mass: 469.589943

Percentage Composition: As 31.61%; O 27.00%; Zn 41.39%

Source/Synthesis: Prepd. by reaction of ZnSO_4 with Na_2HAsO_4

Use/Importance: Wood preservative

Physical Description: Cryst.

>>Derivative: Octahydrate

Synonym(s): Kottigite. Koettigite

CAS Registry Number: 16484-91-6

Molecular Formula: $\text{As}_2\text{H}_{16}\text{O}_{16}\text{Zn}_3$

Molecular Weight: 618.13

Accurate Mass: 613.674463

Percentage Composition: As 24.24%; H 2.61%; O 41.41%; Zn 31.74%

Source/Synthesis: Mineral

Physical Description: Monoclinic cryst.

Solubility: Insol. H_2O ; sol. HNO_3 , H_3PO_4 , alkali

References:

Klement, R. *et al.*, *Z. Anorg. Allg. Chem.*, 1964, **334**, 27, (*synth*)

Sturman, B.D., *Can. Mineral.*, 1976, **14**, 437, (*mineral*)

Hill, R.J. *et al.*, *Am. Mineral.*, 1979, **64**, 376, (*cryst struct, kottigite*)

Frerichs, D. *et al.*, *Z. Naturforsch., B*, 1996, **51**, 333-337, (*synth, cryst struct*)