



>>Entry Name: Zinc selenate (ZnSeO₄)

Synonym(s): Zinc orthoselenate

CAS Registry Number: 13597-54-1

ZnSeO₄

Molecular Formula: O₄SeZn

Molecular Weight: 208.348

Accurate Mass: 207.825325

Percentage Composition: O 30.72%; Se 37.90%; Zn 31.39%

Source/Synthesis: Anhyd. salt formed by dehydration of hydrates at 330°

Physical Description: White triclinic cryst.

Solubility: Sol. H₂O

Other Data: Dec. at 590° to ZnSeO₃

>>Derivative: Monohydrate

CAS Registry Number: 14912-38-0

Other Data: Isomorphous with ZnSO₄·H₂O. Dehydrates at 330°

>>Derivative: Trihydrate

CAS Registry Number: 55004-57-4

>>Derivative: Pentahydrate

CAS Registry Number: 7446-23-3

Physical Description: White triclinic cryst.

Other Data: Dehydrates to monohydrate at 190°

>>Derivative: Hexahydrate

Synonym(s): Hexaaquazinc(2+) selenate

CAS Registry Number: 7446-24-4

Source/Synthesis: Synth. from basic ZnCO₃ and aq. H₂SeO₄

Physical Description: Cryst. (H₂O)

Other Data: Dehydrates to pentahydrate at 100°. Crysts. are chiral. Contains octahedral [Zn(OH)₆]²⁽⁺⁾, tetrahedral [SeO₄]²⁽⁻⁾ linked via H-bonds

References:

- Gmelin Handbook Inorg. Chem., Syst. No. 32, 1956, 968, (rev, bibl)
Korneeva, I.V. et al., Russ. J. Inorg. Chem. (Engl. Transl.), 1959, **4**, 1011, (thermal anal, powder struct)
Duval, C. et al., Z. Elektrochem., 1960, **64**, 582, (ir, hexahydrate)
Courtine, P., Ann. Chim. (Paris), 1966, **1**, 303, (synth, struct, hexahydrate)
Pistorius, C.W.F.T., Z. Anorg. Allg. Chem., 1966, **347**, 223, (struct)
Palmer, R.A. et al., J.C.S. Dalton, 1978, 977, (cryst struct, hexahydrate)
Gospodinov, G., Z. Anorg. Allg. Chem., 1984, **517**, 223, (phase system, thermal anal, anhydrous, hydrates)
Vojtisek, P. et al., Z. Chem., 1987, **27**, 345
Stadnicka, K. et al., Acta Cryst. B, 1988, **44**, 356, (cryst struct, hexahydrate)