



>>Entry Name: Zinc chloride, JAN, USAN

ENTRY UNDER REVIEW

Synonym(s): Zinctrace

CAS Registry Number: 7646-85-7

Related CAS Registry Numbers(s): 24359-56-6

ZnCl_2

Molecular Formula: Cl_2Zn

Molecular Weight: 136.295

Accurate Mass: 133.866849

Percentage Composition: Cl 52.02%; Zn 47.98%

and γ have pseudo close-packed Cl with Zn in tetrahedral sites. In α - and γ -forms, anion layers have a cubic sequence, in β a four layer sequence is present. Linear in gas phase. Structure in molten phase (350-580°) with increase in temp.: Zn-Cl (1st), almost no increase; Cl-Cl (1st shell), increase in width; Zn-Zn (1st shell), decrease in width; order of underlying tetrahedra diminished at 580°

Use/Importance: Moderate inhibitor of poly(ADP-ribose) polymerase *in vitro*. ^{65}Zn labelled compd. used as radioactive agent (*Zinc chloride Zn 65*, USAN). Astringent, dentin desensitiser

Physical Description: Colourless, hygroscopic cryst.

Melting Point: Mp 318°. Mp 290°. Mp 300°

Boiling Point: Bp 732°

Solubility: Sol. MeOH, EtOH, Et_2O , Me_2O ; v. sol. H_2O (= 367 g per 100 cm^3 at 20°)

Other Data: Molten-form: viscosity much large, than many glass-forming compds; can be supercooled into glass by normal methods, with persistence of tetrahedral coord. to well above Mp; model system for studying tetrahedral-network (e.g. SiO_2) glass systems

Hazard & Toxicity: OES: long-term 1 mg m^{-3} (fume); short-term 2 mg m^{-3} (fume). Eye, skin and mucous membrane irritant, can cause pulmonary oedema at high concs. (as fume)

Aldrich: 45684-5

Fluka: 96470

Sigma: J5906

References: