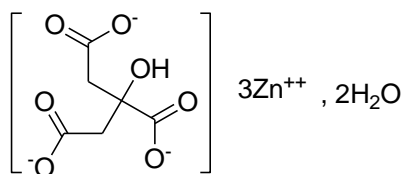


## Zinc Citrate



$\text{C}_{12}\text{H}_{10}\text{O}_{14}\text{Zn}_3, 2\text{H}_2\text{O}$

Mol. Wt. 610.4

Zinc Citrate is 2-Hydroxy-1,2,3-propanetricarboxylic acid zinc salt.

Zinc Citrate contains not less than 31.3 per cent of zinc, calculated on the dried basis.

**Category.** Mineral supplement

**Description.** A white or almost white powder.

### Identification

A. A 1 per cent w/v solution, gives reaction of Zinc salt (2.3.1).

B. A 1 per cent w/v solution, gives reaction (B) of citrate (2.3.1).

### Tests

**Chlorides** (2.3.12). 0.5 g complies with the limit test for chlorides (500 ppm).

**Sulphates** (2.3.17). 0.3 g complies with the limit test for sulphates (500 ppm).

**Heavy metals** (2.3.13). 1.0 g complies with limit test for heavy metals, Method B (20 ppm).

**Loss on drying** (2.4.19). Not more than 1.0 per cent, determined on 1.0 g by drying in an oven at 105° for 2 hours.

**Assay.** Dissolve 0.35 g in 60 ml of *water*, add 10 ml of *ammonia-ammonium chloride buffer*, and titrate with 0.05 M *disodium edetate* using 0.1 ml of *eriochrome black T solution* as indicator, until a blue colour is obtained. Carry out a blank titration.

1 ml of 0.05 M *disodium edetate* is equivalent to 0.0654 g of Zn.

**Storage.** Store protected from moisture.

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**Solubility:** Soluble in *dilute hydrochloric acid*, insoluble in *water*.