# Zinc Citrate

*$C_{12}H_{10}O_{14}Zn_3 \cdot 2H_2O$ · CAS 5990-32-9 · Zinc citrate dihydrate, crystalline*

**CATALOG TDS — CONFIRMED IN WRITING AT QUOTATION**

| CHEMICAL FORM | FORMULA | CAS | PRIMARY ASSAY |
|---|---|---|---|
| Zinc citrate dihydrate, crystalline | $C_{12}H_{10}O_{14}Zn_3 \cdot 2H_2O$ | 5990-32-9 | 31.0–32.5% (complexometric EDTA) |
| **METHOD** | **MINIMUM ORDER** | **LEAD TIME** | **STANDARD PACK** |
| Complexometric EDTA titration | 1 kg | 1–7 days | 1 kg foil pouch · 25 kg fiber drum |

## DESCRIPTION

Zinc citrate dihydrate specified at 31.0–32.5% elemental zinc on the dried basis, for capsules and tablets where the citrate salt and the hydrate state have to be declared.

## SPECIFICATION

| PARAMETER | SPECIFICATION | METHOD / NOTE |
|---|---|---|
| Zinc (Zn), dried basis | 31.0–32.5% (complexometric EDTA) | As stated |
| Appearance | White to off-white powder | As stated |
| Identification | Citrate reaction and IR conform | As stated |
| Loss on drying | ≤6.0% | As stated |
| pH (5% suspension) | 5.0–7.0 | As stated |
| Particle size | ≥95% through 40 mesh | As stated |
| Bulk density | 0.50–0.85 g/mL | As stated |
| Heavy metals | Pb ≤3 · As ≤2 · Cd ≤1 · Hg ≤0.1 mg/kg | As stated |
| Microbiology | APC ≤1,000 cfu/g · yeast and mould ≤100 cfu/g · E. coli and Salmonella absent | As stated |
| Marker set | Zinc (31.0–32.5%, dried basis) | Identity |
| Solubility | Slightly soluble in water; the 5% suspension is slightly acidic to neutral. | Matrix dependent |

## APPLICATIONS

- Capsules and tablets
- Powder sticks and drink mixes
- Gummies and chews

## AVAILABLE FORMS

- Dihydrate powder, 40 mesh
- Milled to 80 mesh on request
- Granulated on request

## PACKING

- 1 kg foil pouch
- 25 kg fiber drum

## STORAGE

Store in a cool, dry, well-ventilated area, away from direct sunlight and moisture. Keep the pack closed after sampling. The lot-specific retest date is shown on the batch COA.

## DOCUMENTATION RELEASED WITH EACH LOT

- Batch-specific certificate of analysis
- Technical data sheet and safety data sheet
- Allergen, GMO, origin and residual-solvent statements
- Third-party reports on request

**Catalog document.** This TDS describes the grade we can quote. The final specification, pack and documentation are confirmed in writing before the order. It is not a batch COA and does not report a result for a specific lot.

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