Calcium Citrate

$C_{12}H_{10}Ca_3O_{14}\cdot 4H_2O$ · CAS 813-94-5 · Calcium citrate tetrahydrate, powder

INDICATIVE SPECIFICATION — CONFIRMED IN WRITING AT QUOTATION

CHEMICAL FORM	FORMULA	CAS	PRIMARY ASSAY
Calcium citrate tetrahydrate, powder	$C_{12}H_{10}Ca_3O_{14}\cdot 4H_2O$	813-94-5	21.0–22.0% (complexometric EDTA)
METHOD	**MINIMUM ORDER**	**LEAD TIME**	**STANDARD PACK**
Complexometric EDTA titration	1 kg	1–7 days	1 kg foil pouch

SPECIFICATION

PARAMETER	SPECIFICATION	METHOD / NOTE
Calcium (Ca)	21.0–22.0% (complexometric EDTA)	Analytical
Assay (calcium citrate, dried basis)	≥97.5%	Specification
Appearance	White, odourless powder	Specification
Identification	Citrate reaction and IR conform	Specification
Loss on drying	≤13.0%	Specification
Particle size	≥95% through 80 mesh	Sieve
Bulk density	0.60–0.95 g/mL	Tapped cylinder
Heavy metals	Pb ≤3 · As ≤2 · Cd ≤1 · Hg ≤0.1 mg/kg	Specification
Microbiology	APC ≤1,000 cfu/g · yeast and mould ≤100 cfu/g · E. coli and Salmonella absent	Specification
Marker set	Calcium (21.0–22.0%, tetrahydrate)	Identity / ratio
Appearance	White, odourless, free-flowing powder	Visual
Solubility	Sparingly soluble in water; soluble in dilute hydrochloric acid.	Matrix dependent
Standard packaging	1 kg foil pouch · 25 kg fiber drum	Food-grade liner

APPLICATIONS

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

AVAILABLE FORMS

- Tetrahydrate powder, 80 mesh
- Granulated on request
- Milled to 100 mesh on request

WHAT TO CONFIRM BEFORE ORDERING

- Name the hydrate. Calcium citrate tetrahydrate carries about 21% calcium; the anhydrous salt carries more.

- Ask for the calcium assay and the citrate identity; a calcium figure alone does not prove the salt.
- Calcium citrate has a different taste and acid response from calcium carbonate; trial the matrix.
- Confirm the bulk density and the tablet flow if the grade is going into a high-dose tablet.

Indicative document. This sheet describes the grade we can quote; it is not a batch COA and does not confirm a result for a specific lot. Final specification, contaminant limits and documentation are agreed in writing before the order. The form, hydrate state, ligand ratio and method are release parameters, not marketing descriptions.

DOCUMENTATION RELEASED WITH EACH LOT

DOCUMENT	CONTENT	SCOPE
Certificate of analysis	Assay, identity, physical parameters, contaminant panel and the release decision for the lot.	Batch-specific
Technical data sheet	Form, hydrate state, CAS, specification ranges, solubility, bulk density, storage and packing.	Product-level
Safety data sheet	Sixteen sections covering hazards, handling, storage, transport and emergency response.	Grade-specific
Allergen and GMO statements	Major allergens, gluten, animal-derived inputs and GMO status.	Batch-specific
Origin and traceability record	Manufacturing site and the link between the lot and the retained sample.	Batch-specific
Residual-solvent statement	The crystallisation system and the solvent class, where applicable.	Batch-specific

HOW TO REQUEST THIS GRADE

01 · BRIEF

Send the target specification, quantity, dosage form and destination market.

02 · COUNTER-SPEC

We confirm what can be matched and the documents available for the grade.

03 · SAMPLE & QUOTE

A sample with its own COA, followed by packing, lead time and terms in writing.

No claim is made here. This sheet does not claim a therapeutic effect, a product certification or a regulatory approval. Health claims belong to the brand that makes them and to the market that authorises them.

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