

SPECIFICATION

Product Name: Calcium Gluconate BP Grade
Chemical Formula: $C_{12}H_{22}CaO_{14}$
CAS Number: 299-28-5
Molecular Weight: 448.39 g/mol
Appearance: White to off white free flowing powder
Odor: Odorless

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min./Max.)
Assay (as calcium)	%	99.3%	99% - 104%
Chloride	%	0.01%	Max. 0.08%
Sulfate	%	0.12%	Max. 0.15%
Arsenic	PPM	BDL 0.5 PPM	Max. 0.5 $\mu\text{g/g}$
Lead	PPM	BDL 0.5 PPM	Max. 0.5 $\mu\text{g/g}$
Cadmium	PPM	BDL 0.5 PPM	Max. 0.5 $\mu\text{g/g}$
Mercury	PPM	BDL 0.1 PPM	Max. 0.5 $\mu\text{g/g}$
Total heavy metals	PPM	BDL 5 PPM	Max. 5 $\mu\text{g/g}$
Total plate count (48 hrs) bile tolerant	cfu/gm	<300 cfu/gm	Max. 10^4 cfu/g
Gram negative bacteria	Absent/gm	Absent	Absent in 1 gm
Yeast & Molds	cfu/gm	Absent	Max. 10^2 cfu/g
E. Coli	Absent/gm	Absent	Absent in 1 gm

Salmonella spp.	Absent/gm	Absent	Absent in 1 gm
Staphylococcus aureus	Absent/gm	Absent	Absent in 1 gm
Pseudomonas aeruginosa	Absent/gm	Absent	Absent in 1 gm
Aflatoxin	ppb	Absent	5 ppb
Pesticides	µg/g	Absent	1 µg/g

Physical Properties

- Solubility: Soluble in water. Insoluble in ethanol. Insoluble in acetone.

Shelf Life & Storage

- Shelf Life: 2 years from date of manufacture under recommended storage.
- Storage Conditions: Store in a cool, dry place at 15–25°C. Protect from moisture, excessive heat, and direct sunlight. Keep the container tightly closed in the original, properly labeled container and store in a well-ventilated area to maintain product quality and stability.

Applications

- Use: Widely used as a source of calcium in pharmaceutical and nutraceutical formulations. It helps support bone and teeth health, normal muscle function, nerve transmission, and blood clotting. It is commonly incorporated into tablets, capsules, oral powders, syrups, and injectable formulations (manufactured under appropriate pharmaceutical standards). It is also used to help prevent or treat calcium deficiency when clinically indicated.
- Dosage: Depends on the intended pharmaceutical formulation, therapeutic indication, patient age, dietary calcium intake, and clinical condition. It should be used according to product formulation requirements or as directed by a qualified healthcare professional.

Packaging

- Standard Packing: 25 Kgs woven pp bag with inner liner or as per customer requirement.
- Labeling: Product name, batch number, net weight, manufacture date, expiry date, and manufacturer details.

* Specifications are based on the manufacturer's provided specifications.