

SPECIFICATION

Product Name: Di-basic Calcium Phosphate Dihydrate BP/USP Grade
Chemical Formula: $\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}$
CAS Number: 7789-77-7
Molecular Weight: 172.09 g/mol
Appearance: White or almost white, crystalline granules
Odor: Odorless

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min/Max)
Identification A, B & C	-	Complies	-
Acid insoluble substances	%	0.074	Max 0.2
Carbonates	-	Complies	No effervescence with Hcl should be produced
Chlorides	%	<0.125	Max 0.25
Fluorides	PPM	0.002	Max 0.005
Lead	PPM	0.75	Max 1
Cadmium	PPM	0.63	Max 1
Mercury	PPM	0.4	Max 0.6
Sulphates	%	<0.5	Max 0.5
Arsenic	PPM	<1.0	Max 1.0
Barium	-	Complies	No turbidity should be produced

Heavy metals (as Pb)	PPM	<40	Max 40
Iron	PPM	<400	Max 400
Loss on ignition (800°C to 825°)	%	25.94	24.5 – 26.5
Nitrate	-	Complies	To Pass Test
Reducing Substances	-	Complies	To Pass Test
Protenous Impurities	-	Complies	To Pass Test
Mono Calcium and Tri Calcium Phosphate	MI	11.6	11.6 – 12.5
Assay (Dihydrate)	%	100.83	98.0 - 105
Microbiological Analysis (In House)			
Total Aerobic microbial count	Cfu/gm	Complies	1000
Total yeast and mold count	Cfu/gm	Complies	100
Escherichia Coli	Absent/g	Complies	Absent/g
Salmonella	Absent/g	Complies	Absent/g
Pathogens	Absent	Complies	Absent
O V I (ORGANIC VOLATILE IMPURITES)	Meets the requirement	Complies	Meets
B S E / TSE	Absent	Complies	Absent

Physical Properties

- Solubility: Slightly soluble in water. Practically insoluble in ethanol. Soluble in dilute hydrochloric acid and nitric acid.

Shelf Life & Storage

- Shelf Life: 5 years from date of manufacture under recommended storage.
- Storage Conditions: Store in a well-closed, airtight container. Keep in a cool and dry place. Protect from moisture and humidity. Store at room temperature (below 30°C).

Applications

- Use: Calcium tablets and capsules. Widely used as an excipient in tablet formulations.
- Dosage: Depends on the elemental calcium requirement, not only the compound weight.

Packaging

- Standard Packing: 25 kg HDPE bags 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.

