

SPECIFICATION

Product Name: Tri Calcium Phosphate Micronized Grade
Chemical Formula: $\text{Ca}_3(\text{PO}_4)_2$
CAS Number: 7758-87-4
Molecular Weight: 310.18 g/mol
Appearance: White amorphous almost odorless powder comparable to control
Odor: Odorless

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min/Max)
Solubility	%	Complies	Practically insoluble in water
Identification Test A	g/ml	Complies	A white precipitate is obtained that is only sparingly soluble in dilute acetic but is soluble in hydrochloric acid. A bright yellow precipitate is formed.
Test B			
Acid insoluble substance	%	0.23 w/w	Not more than 0.30% w/w
pH of 1% solution in purified water	%	7.2	6.5 – 7.5
Sieve analysis	%	Complies	100% Passing through 325 mesh
Water soluble substance	%	2.6 w/w	Not more than 3.0% w/w

Bulk Density Untapped Tapped	g/ml	0.58 g/ml 0.98 g/ml	0.45 - 0.65 g/ml 0.85 - 1.10 g/ml
Arsenic	PPM	4.3	Not more than 5.0 ppm
Heavy metals (Cumulative value of lead, mercury, arsenic, cadmium, and lithium)	PPM	29	Note more than 40 ppm
Iron	PPM	167	Not more than 200 ppm
Carbonate	-	Complies	No effervescence is produced
Chloride	PPM	0.892	Not more than 0.1000 ppm
Sulphate	PPM	0.5296	Not more than 0.6000 ppm
Protein impurities	-	Complies	No changed in colour is observed and no unpleasant odour is emitted
Loss on ignition at 800°C	%	7.2	Not more than 8.0% w/w
Water	%	1.9	Note more than 2.5% w/w
Content of calcium	%	38.5	35.0%w/w - 40.0% w/w

Physical Properties

- Solubility: Practically insoluble in water. Soluble in acid.

Shelf Life & Storage

- Shelf Life: 5 years from date of manufacture under recommended storage.
 - Storage Conditions: Store in a cool, dry place at 15–30°C. Keep in tightly closed, airtight containers. Protect from moisture and humidity. Store in original packaging (HDPE drum with inner liner or laminated bags). Keep away from direct sunlight and heat sources.
 Ensure good ventilation in storage area.

Applications

- Use: Diluent / Filler in tablets and capsules. Anti-caking agent in powder formulations. Used in milk powder, spices, salt, baking mixes. Used in bone health supplements.
- Dosage: Depends on the application (food, pharma, nutraceutical).

Packaging

- Standard Packing: 25 kg woven PP bags with inner liner, 1Kgs and 100grams, 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.