



TECHNICAL DATA SHEET

Product Name: Calcium Pyrophosphate

Abbreviation: CPP

CAS Number: 7790-76-3

Molecular Formula: $\text{Ca}_2\text{P}_2\text{O}_7$

Molecular Weight: 254.10

EINECS No.: 232-208-0

EC Code: Not allocated

1. Product Description

Calcium Pyrophosphate (CPP) is a white to off-white inorganic powder belonging to the pyrophosphate family. It is characterized by a stable pyrophosphate (P–O–P) structure, offering high thermal stability and chemical inertness. CPP is widely used in ceramic, enamel, refractory, and specialty industrial applications as a functional additive, flux component, or filler.

Due to its low solubility in water and resistance to high temperatures, Calcium Pyrophosphate is particularly suitable for applications requiring controlled reactivity, dimensional stability, and consistent performance under thermal processing conditions.

2. Specification

Parameter	Specification
Appearance	White to off-white powder
Bulk Density	0.60 – 0.90 g/cm ³
Tapped Density	0.80 – 1.10 g/cm ³
Particle Size	≤ 75 μm (D90)
Identification	Positive
pH (10% slurry)	6.5 – 7.5
Loss on Ignition	≤ 1.0 %
Assay (as $\text{Ca}_2\text{P}_2\text{O}_7$)	≥ 98.0 %
Calcium (Ca)	≥ 30.0 %
Phosphorus (P)	≥ 24.0 %
Heavy Metals (as Pb)	≤ 10 ppm
Arsenic (As)	≤ 3 ppm
Chloride	≤ 0.10 %
Sulfate	≤ 0.10 %

3. Applications

- Ceramic bodies and glazes
- Enamel and frit formulations
- Refractory materials
- Specialty inorganic fillers
- Research and laboratory applications

4. Packaging and Storage

- **Packaging:**

25 kg net weight per fiber drum or paper bag, inner lined with PE liner

- **Shelf Life:**

24 months when stored under recommended conditions

- **Storage Conditions:**

Store in a cool, dry place. Keep container tightly closed. Protect from moisture and contamination.

5. Regulatory Status

- Industrial grade material
- Not classified as a food or feed additive
- Manufactured under ISO-certified quality management systems
- REACH compliant (subject to registration status)
- Non-GMO, BSE/TSE-free

