CERAMAT

HYDROXYAPATITE POWDER

INGREDIENT GRADE | ORAL CARE AND COSMETIC APPLICATION, 500G

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HYDROXYAPATITE POWDER – INGREDIENT GRADE FOR ORAL CARE AND COSMETIC APPLICATION.

Ingredient Hydroxyapatite is the pioneering offering with chemical purity (assay > 97%), indigenously prepared for unparalleled affordability and consistent nano-grade morphological properties to match the quality of various application like oral care and cosmetic.

HYDROXYAPATITE POWDER-INGREDIENT GRADE DETAILS

- Product name: Hydroxyapatite powder-Ingredient Grade, submicron particle (DLS), ≥ 97%(trace metal basis), synthetic
- Chemical formula: $Ca_5(PO_4)_3(OH)/Ca_{10}(PO_4)_6(OH)_2$
- Formula weight: 502.31 g/mol
- CAS number: 12167-74-7
- Appearance: Milky white
- Morphology: Spherical and Rod shaped
- Manufacturing route: Wet chemical precipitation
- Major applications: Oral Care and Cosmetic Application

HYDROXYAPATITE POWDER- INGREDIENT GRADE DETAILS

- Chemical composition (Ca/P ratio): 1.663 ≤Ca/P≤ 1.714 (ICP-MS)
- Melting point: 1670 °C (2012 °F)
- Decomposition temp: 1400 °C (3038 °F)
- Crystallite size: 15 nm – 40 nm
- Density (Helium gas pycnometer): 3.15 – 3.20 g/cc
- Average particle size: ≤ 100 microns

APPLICATION

- For Toothpaste: Hydroxyapatite, which is a naturally occurring substance, can securely refill your enamel to restructure and fortify the smile.
- For Food: Hydroxyapatite would be good addition to supplement for bone health.
- For Cosmetics: A safe sunscreen component, hydroxyapatite has been suggested due to itswide UVA and UVB protection, nontoxicity, lack of photocatalytic effects, and environmental safety.

Technical Data Sheet

Product Name: Ingredient Grade Synthetic Hydroxyapatite (>97% Pure)
Mol. Formula: [Ca5(PO4)3OH]
Mol. Weight: 502.4 gm/mol
CAS No.: 12167-74-7

Sl. No.	Tests	Tests methods	Specifications
1.	Phase Analysis	XRD	Conforms with ICDD file no. 09-0432
2.	Ca/P ratio	ICP-MS/AES/OES	$1.663 \leq Ca/P \leq 1.714$
3.	Trace elements	ICP-MS/AES/OES	As ≤ 3 ppm Cd ≤ 5 ppm Hg ≤ 5 ppm Pb ≤ 30 ppm
4.	Particle Size	Sieve Analysis	<75 µm
5.	Bulk Density	Manually (Mass/Volume)	0.2 to 0.8 gm/cc
6.	Crystallite Size	XRD (Debye Scherrer)	20 to 60 nm
7.	Heavy metals	ICP-MS/AES/OES	Total heavy metals ≤ 30 ppm
8.	Other elements	ICP-MS/AES/OES	Fe ≤ 100 ppm

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