Technical Data Sheet

Product Name: Calcium Deficient Hydroxyapatite

Mol. Formula: [$Ca_{10-x}(HPO_4)_x(PO_4)_{6-x}(OH)_{2-x}$]

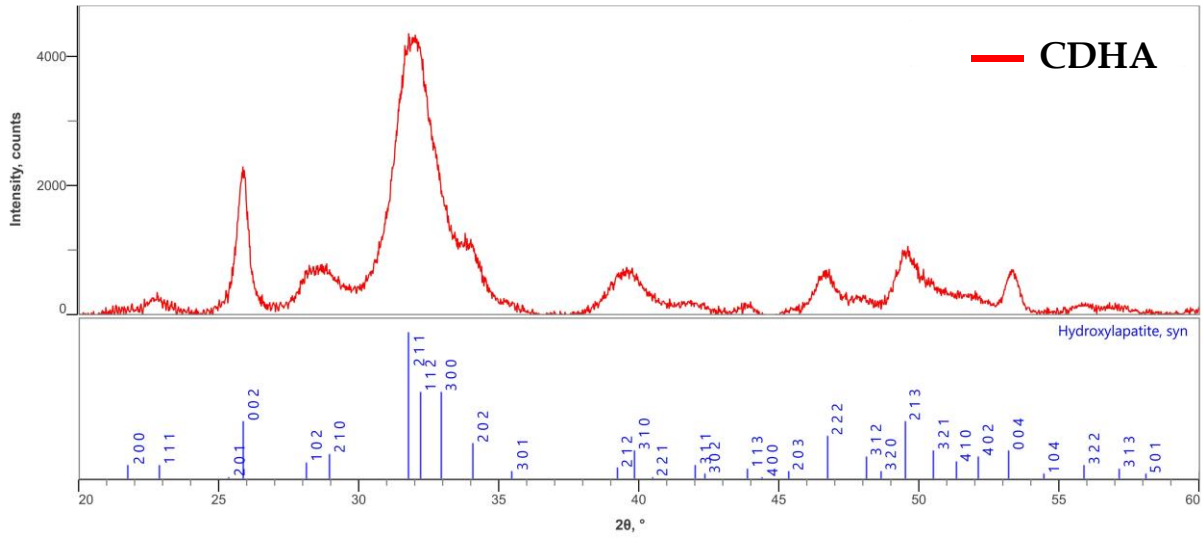
Mol. Weight: 502.31 gm/mol

CAS No.: 12167-74-7

Calcium deficient hydroxyapatite (CDHA) is a non-stoichiometric hydroxyapatite with a Ca/P atomic ratio ranging from 1.50 to 1.667 **[(0<x<1)]**. Structurally and chemically, CDHA closely resembles the mineral phase of living bone and is widely used as bone grafts primarily bone void fillers. This is because of its resorbable characteristics under physiological characteristics. The typical XRD pattern of the CDHA conforms with XRD pattern of hydroxyapatite.

Sl. No.	Tests	Tests methods	Specifications
1.	Phase Identification	XRD	Conforms with ICDD file no. 09-0432
2.	Appearance	Visually	Milky white with no other-coloured impurity.
3.	Particle size	Sieve Analysis	< 75 µm*
4.	Particle size distribution	Dynamic Light Scattering (DLS)	D_{10}= 2-5 µm D_{50}= 15-25 µm D_{90}= 40-55 µm**
5.	Bulk Density	Manually (Mass/Volume)	0.2 to 0.8 gm/cc

*Powder is sieved from the 75 µm sized sieve.
**Particle size distribution is after 5 minutes sonication in DI water



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