SHAANXI ALICE BIO-TECH CO., LTD.

CERTIFICATION OF ANALYSIS

Product Name: Nano-Hydroxyapatite
Batch No.:20260512
Manufacture Date: May. 12, 2026
Batch Quantity:5000kg
Expiry Date: May.11 2028
Particle Shape: Rod-Shaped
Country of Origin: China
Note:**Not For Medicinal Use**

TEST	SPECIFICATION	RESULTS	TESTING STANDARD
Appearance	White powder, no visible impurities color	Complies	In-house Test Method
Particle size distribution (DLS)	D50:20-30nm	Complies	ISO 22412:2017 (DLS)
Hydroxyapatite	≥99%	99.03%	In-house quantitative test method via ICP-OES
Ca/P Molar Ratio	1.57-1.69	1.68	In-house quantitative test method via ICP-OES
Aspect ratio (by particle number, TEM)	≥88.21% of particles AR < 3	88.21 AR < 3	TEM
Surface status	Not coated or surface modified	Complies	TEM & In-house surface observation method
Heavy metals	≤30ppm	<30ppm	EN ISO 21392:2021
-As	≤3ppm	0.22ppm	EN ISO 21392:2021
-Cd	≤5ppm	0.166ppm	EN ISO 21392:2021
-Hg	≤5ppm	Not Detected	EN ISO 21392:2021
-Pb	≤5ppm	0.09ppm	EN ISO 21392:2021
-Ni	≤5ppm	0.82ppm	EN ISO 21392:2021
-Sb	≤5ppm	0.34ppm	EN ISO 21392:2021
Microbiological Test:			
Total aerobic bacterial count	≤100cfu/g	<10 cfu/g	EN ISO 21149:2017
Yeasts and moulds	≤100cfu/g	<10 cfu/g	EN ISO 16212:2017/A1:2022
Escherichia coli	Negative in 1g	Negative in 1g	EN ISO 21150:2017
Candida albicans	Negative in 1g	Negative in 1g	EN ISO 18416:2017
Pseudomonas aeruginosa	Negative in 1g	Negative in 1g	EN ISO 22717:2017
Staphylococcus aureus	Negative in 1g	Negative in 1g	EN ISO 22718:2017
Conclusion	This batch of Nano-Hydroxyapatite complies with all internal specifications and EU cosmetic safety requirements. Microbiological testing operations adopt harmonized EN ISO test methods, and acceptance limits follow EN ISO 17516:2014 under Regulation (EC) No 1223/2009. No mandatory pathogenic microorganisms are detected, this batch is qualified for cosmetic use.		
Note	Note 1: All microbiological acceptance limits follow EN ISO 17516:2014, and heavy metal limits comply with Annex II of EU Cosmetic Regulation (EC) No 1223/2009. Note 2: This nano-hydroxyapatite counts as nanomaterial per Regulation (EC) No 1223/2009; particle characterization tests are carried out by TEM and DLS (ISO 22412:2017).		

Analyst : Zhang Ping

QC Supervisor: Dai Zhi Ting

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