

## PRODUCT DESCRIPTION

**nanoXIM•FoodPowder** is a synthetic hydroxyapatite powder for food applications, manufactured by FLUIDINOVA, S.A.



### Identification

Trade name	nanoXIM•FoodPowder
SKU	505202
IUPAC name	Pentacalcium hydroxide triphosphate
CAS number	12167-74-7
EC number	235-330-6
Synonyms	Hydroxyapatite (CAS No.1306-06-5)
Chemical formula	$\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$
REACH ID number	01-2119490075-38-0021
Grade	Food grade
E number(s)	E341(iii)

### General properties

	Unit	Value
Bulk density	g/cm <sup>3</sup>	0,55 ± 0,20
Particle type		Microparticles
Physical appearance		White and odourless powder
Solubility		Practically insoluble in water, insoluble in ethanol, soluble in dilute hydrochloric and nitric acid.
Shelf life		5 years from opening

Following the industry practices for using products with no expiration date, retest the material after 5 years from the first opening at your facilities. Routine analysis performed during 10 years on XRD and granulometry, to assess the stability of phase purity and particle size on control samples, support our claim of a stable material.

## PRODUCT SPECIFICATIONS

	Unit	Specifications
Assay (calculated on the ignited basis)	wt% ≥	90
Loss on ignition (at 800°C±25°C for 0,5 h)	wt% ≤	8
Salts (K <sup>+</sup> ; Cl <sup>-</sup> ; Ca <sup>2+</sup> )	wt% ≤	3
P <sub>2</sub> O <sub>5</sub> (on the anhydrous basis)	wt%	38,5 - 48,0
Particle size		
Dv(10)	µm ≤	5
Dv(50)	µm ≤	10
Dv(90)	µm ≤	50
Fluoride (expressed as fluoride)	ppm ≤	50
Total heavy metals (as Pb)	ppm ≤	20
Arsenic	ppm ≤	1
Cadmium	ppm ≤	1
Lead	ppm ≤	1
Mercury	ppm ≤	1
Aluminium	ppm ≤	150

## USES AND APPLICATIONS

nanoXIM•FoodPowder is a white powder of hydroxyapatite micrometric particles suited for food products. Hydroxyapatite is used in chewing gums to promote dental health. Calcium phosphates are widely used to promote bone strength and health in dietary supplements, such as dietary pills and capsules. As human bone contains up to 70% of hydroxyapatite, this calcium phosphate is highly recommended for these applications.

## REGULATIONS

nanoXIM•FoodPowder meets the requirements of current European Community regulations for Food additives, EC 231/2012 [E341(iii)].

## PACKAGE

Standard packing available in 5 kg plastic bag in a food-grade PP pail. Large quantities are supplied in 5 kg pails packed on pallets, preferably in multiples of 80 kg up to a maximum of 400 kg per pallet. Other options may be available upon request.

Minimum Order Quantity: 100g

## STORAGE, SAFETY AND HANDLING

To ensure the quality of the product, keep it in a closed container at room temperature in a clean and dry place.

For more details about product safety and handling information, please see the product Safety Data Sheet (SDS).

Shake before use to ensure homogeneity.

## PRODUCT SEALS



## NUTRITIONAL DECLARATION

Nutritional data	Value per 100 g	Unit
Energy	0	kJ
	0	kcal
Fat	0	g
of which		
Saturates	0	g
Mono-unsaturates	0	g
Polyunsaturates	0	g
Carbohydrate	0	g
of which		
Sugars	0	g
Polyols	0	g
Starch	0	g
Fiber	0	g
Protein	0	g
Salt	0	g
Calcium	35907	mg
Phosphorus	16647	mg
Potassium	1573	mg

## COMPANY CERTIFICATION/REGISTRATIONS

### ISO 9001:2015

[https://www.fluidinova.com/docs/iso\\_9001\\_certificate.pdf](https://www.fluidinova.com/docs/iso_9001_certificate.pdf)

### REACH

All products sold by FLUIDINOVA are compliant with REACH regulatory requirements. All substances of the FLUIDINOVA portfolio have been registered under REACH or are exempt from REACH registration.

To fully understand the obligations that you as our customer have under REACH, we recommend that you consult the ECHA website.

## STATEMENTS

**Allergen:** This product does not contain and is not derived from the known allergens listed in Annex II regarding SUBSTANCES OR PRODUCTS CAUSING ALLERGIES OR INTOLERANCES of the REGULATION (EU) No 1169/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 October 2011 on the provision of food information to consumers, amending Regulations (EC) No 1924/2006 and (EC) No 1925/2006 of the European Parliament and of the Council, and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission Directive 1999/10/EC, Directive 2000/13/EC of the European Parliament and of the Council, Commission Directives 2002/67/EC and 2008/5/EC and Commission Regulation (EC) No 608/2004.

**Animal and vegetable derivatives:** This product does not contain and it is not derived from any animal or vegetable source. Therefore, any animal or vegetable based material is present in its composition.

**BSE/TSE:** This product is made from inorganic calcium and phosphate salts and water, in a dedicated plant. The ingredients and the sources of these ingredients are inorganic and not of animal or vegetable origin. There are no additives or extracts of the brain, spinal cord, bone marrow, or eyes of any animal. The product does not contain, nor is it derived from any category A, B or C materials as defined in the Note for Guidance on Minimizing the Risk of Transmitting Animal Spongiform Encephalopathy Agents via Human and Veterinary Medicinal Products (EMA/410/01 rev.3) (2011/C 73/01). Bovine Spongiform Encephalopathy (BSE) / Transmissible Spongiform Encephalopathy (TSE) should not be a concern associated with the use of this product.

**CMR substances:** This product does not contain any carcinogenic, mutagenic, or toxic for reproduction (CMR) substances classified as category 1A, 1B, and 2 according to Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 and its amendments introduced by COMMISSION DELEGATED REGULATION (EU) 2022/692 of 16 February 2022.

**Dyes free:** This product is dye free. No dyes are used at any stage of the production process.

**GRAS (Generally Recognized As Safe) status:** FLUIDINOVA has not submitted any products for direct FDA analysis. However, it's important to note that hydroxyapatite, the primary component of our product, is a form of calcium phosphate. Relevantly, FDA's Title 21/Chapter I/Subchapter B/Part 182/Subpart B §182.1217 lists "Calcium phosphate" as a safe ingredient. We firmly believe that the FDA-listed "Calcium phosphate", which among others includes hydroxyapatite, reinforces the safety of our product.

**GMO:** This product is not genetically modified or not derived from a genetically modified organism as defined by the EC regulations:

- Directive 2001/18/EC on the deliberate release of GMOs into the environment
- Regulation (EC) 1829/2003 on genetically modified food and feed
- Regulation (EC) 1830/2003 concerning the traceability and labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms.

**HALAL:** This product sole manufactured by FLUIDINOVA is compliant with all the HALAL requirements.

- Do not contain any ingredient of animal origin;
- No process aid of animal origin is used in the production process;
- Do not contain any ingredient of vegetable origin;
- Do not contain alcohol and alcohol has not been used in the manufacturing process;
- The equipment used for the manufacturing, filling and packing is dedicated for these products and is not used for any other process related with products of animal origin or containing ingredients of animal source;
- During the manufacturing, storage and handling, the product is completely fully separated from foods and alcohol;
- The ingredients used to produce these products are inorganic and purified water.

**Ionization:** This product has not been subject to any irradiation or ionisation procedure at any stage of its manufacturing or product final storage.

**KOSHER:** This product sole manufactured by FLUIDINOVA is compliant with all the KOSHER requirements

- Do not contain any ingredient of animal origin;
- No process aid of animal origin is used in the production process;
- Do not contain any ingredient of vegetable origin;
- Do not contain alcohol and alcohol has not been used in the manufacturing process;
- The equipment used for the manufacturing, filling and packing is dedicated for these products and is not used for any other process related with products of animal origin or containing ingredients of animal source;
- During the manufacturing, storage and handling, the product is completely fully separated from foods and alcohol;
- The ingredients used to produce these products are inorganic and purified water.

**Origin:** This product is fully synthetic, produced at our site in Maia, Portugal (COO).

**Parabens free:** This product is a parabens free.

**Palm Oil:** This product do not contain any palm oil source and are considered completely palm oil free. It is not used any vegetable source components or raw materials in its manufacturing process. This product is inorganic and synthetic, being manufactured, packaged and stored in a dedicated equipment and facilities.

**Pesticides:** This product comply with Regulation 2005/396/EC on maximum level of pesticides in or on food and feed and animal origin and its amendments.

**Prop. 65:** This product do not contain any of the chemicals listed on California's Safe Drinking Water & Toxic Enforcement Act of 1986, commonly known as Proposition 65 (Prop 65).

**Residual Solvents:** This product is a fully synthetic inorganic product and does not contains nor it is derived from any solvent source. This product is never in contact with any solvent at any stage of its manufacturing or storage. No residual solvents are present in this product.

**SLS/SLES:** This product is free from Sulphate (aka Sulfate), SLS, SLES.

**SVHC:** This product do not contain any of the REACH Substances of Very High Concern (SVHC), according to the Candidate list published by ECHA (European Chemical Agency).

**Vegan:** This product sole manufactured by FLUIDINOVA is compliant with all the VEGAN requirements.

- Do not contain any ingredient of animal origin;
- No process aid of animal origin is used in the production process;
- Do not contain any ingredient of vegetable origin;
- Do not contain alcohol and alcohol has not been used in the manufacturing process;
- Do not contain known animal-derived GMOs or genes in the ingredients or finished product manufacture;
- Do not involve any animal testing of ingredients or finished product;
- The equipment used for the manufacturing, filling and packing is dedicated for these products and it is not used for any other processes related with products of animal or vegetable origin nor containing ingredients of animal or vegetable source;
- The ingredients used to produce these products are inorganic salts and purified water.

## MISCELLANEOUS

Although the information set forth herein are presented in good faith and believed to be correct as of the date hereof, the persons receiving the same will make their own determination as to its suitability for their purposes prior to use.

Additionally, it is the user's responsibility to verify, in every case, the local legislation related to the use of the product.

The product specification limits are subject to change. Please contact FLUIDINOVA for the most current data sheet.