



Knowledge grows

KYNOFOS 21

Mono Dicalcium Phosphate, Feed Grade (V2851)

Sales specification

Product Properties	Typical Analysis
Total Phosphorus (P)	21%
Citric acid soluble P (as % of total P)	97%
Water soluble P (as % of total P)	75%
Calcium	16%
Magnesium	1.5%
Free Moisture	1%
pH	3.5 – 4.5

Physical Properties	
Appearance	Light grey/off white granules
Particle sizes	0.5 – 2.36 mm
Bulk Density (untamped)	700 - 900 kg/m ³
Chemical solubility and biological availability	Excellent

Undesirable Elements	EU Standards	KYNOFOS 21 Values
Fluorine (F)	Max 0.2%	Max 0.18%
Arsenic (As)	Max 10 mg/kg	Max 10 mg/kg
Cadmium (Cd)	Max 10 mg/kg	Max 8 mg/kg
Lead (Pb)	Max 15 mg/kg	Max 15 mg/kg
Mercury (Hg)	Max 0.1 mg/kg	Max 0.1 mg/kg

Identification

Chemical Formula:

Monocalcium Phosphate ($\text{Ca}(\text{H}_2\text{PO}_4)_2 \cdot \text{H}_2\text{O}$) and Dicalcium Phosphate dihydrate ($\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}$) in the ratio of approximately 3:1.

Synonyms:

Calcium hydrogen orthophosphate
MDCP (Mono dicalcium phosphate)

CAS No. 7758-23-8

EINECS No. 233-283-6

Description

KYNOFOS 21 is a feed grade, mono dicalcium phosphate. The major components of this product are monocalcium phosphate, which is highly soluble in water and dicalcium phosphate dihydrate, which is soluble in weak acids (such as a 2% citric acid solution). The ratio of MCP to DCP is approximately 3:1 and the product is generally referred to as MDCP.



KYNOFOS 21 is produced by reacting high quality defluorinated phosphoric acid with finely milled calcium carbonate in the presence of water under strictly controlled conditions. This ensures a high bioavailability and minimum levels of undesirable elements below those stipulated by the EU.

The granulated product is screened to reduce excessive dustiness and improve the handling characteristics. KYNOFOS 21 has a light grey / off white colour.

Nutritive value

Studies show that there are distinct differences in utilisation of phosphorous between different generic sources of inorganic phosphates as well as within broadly defined sources of the same description.

Reputable independent research institutes regularly evaluate the digestibility of KYNOFOS 21 in monogastric species.

Trial results consistently demonstrate that KYNOFOS 21 has a high bioavailability, comparable with the top of the range inorganic feed phosphates. Trial reports and digestibility coefficients are available on request.

Recommended use / application

The high bioavailability of KYNOFOS 21 makes the product an ideal calcium and phosphate source. The product is recommended for use in concentrates, compound feeds, mineral feeds and free choice supplements for ruminants, monogastric animals and aquatic species.

Classification, labelling and packaging

KYNOFOS 21 is available in bulk, big bags (1050kg nett), and 50kg woven polypropylene (WPP) bags with a polyethylene inner liner.

Handling and storage

KYNOFOS 21 must be stored under cover in a cool dry place to ensure a shelf life of at least 3 years.

Transport and transport regulations

KYNOFOS 21 is non toxic and not classified as hazardous under transport regulations.

Detailed Safety Data Sheets are available on request from local agents or the manufacturer.

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The information above is intended to serve as guidelines and does Not constitute a guarantee. We reserve the right to make changes. Valid from: 2015-10-01. Replaces all previous data sheets. English

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Quality check references

Total Phosphorus	AOAC Official Method of Analysis, 1990, 15th Ed. AOAC Method 957.02 B9e.
Phosphorus solubility: In 2% citric acid	Methods of the Fertilizer Chemists' Liaison Committee, South Africa Method No. Fd-03: 1991 AOAC 958.01, or 969.02C or 962.02C. (Directive 77/535/EEC, method 3.1.3)
In alk amm citrate	Petermann method: 65°C (Directive 77/535/EEC, method 3.1.5)
Total calcium	AOAC Official Methods of Analysis, 15th Ed. 945.03 Ca (Acid-Soluble) in Fertilizers Titrimetric Method I Final Action
pH	1 % solution
Moisture (free moisture)	(AOAC) Official Methods of Analysis, 1990, 15th Ed. 965.08 Vacuum-Desiccation Methods First Action 1965 – Final Action 1974.
Undesirable elements	AOAC Official Methods of Analysis, 15th Ed., Cd, 974.27, As, 957.22.

