

### **Knowledge grows**

# **BOLIFOR® MCP-F**

## Monocalcium Phosphate, Monohydrate - Feed Grade

#### Sales specification

Product Properties	
Phosphorus (P)	22,7 %
Relative solubility in	
- 2% citric acid	98 %
- alkaline ammonium citrate	98 %
- water	75 %
Calcium (Ca)	16,5 %
Ca:P ratio	0.7:1
рН	4-5
Ash insoluble in 3N HCl	< 1 %
Moisture (mechanical free water)	< 3 %

Physical Properties	
Appearance	Fine granules >90 % within 0.2-1.4 mm, guaranteed when delivered from factory
Bulk density kg/m <sup>3</sup>	900-1100
Water activity	aw < 0.70

#### Identification

Chemical formula:  $Ca(H_2PO_4)2 \times H_2O$ CAS No.: 10031-30-8 EINECS No.:231-837-1

Inorganic feed material according to Regulation (EC) No 767/2009 of the European Parliament and of the Council and Commission Regulation (EU) No 68/2013

#### Description

BOLIFOR<sup>®</sup> MCP-F appears as grey granules. The product is highly soluble in water and diluted acids. BOLIFOR<sup>®</sup> MCP-F is odourless and has an acidic taste.

A feed grade monocalcium phosphate produced by means of reacting phosphoric acid and calcium sources in a granulator at precise conditions.

The selected raw materials, of only mineral origin, and production process ensure a product with good phosphorus digestibility and the level of undesirable elements are below that stipulated by EU feed legislation.

#### Nutritive value

Trial data show significant differences in phosphorus digestibility between and within the different generic types of inorganic feed phosphates. Reputable independent research institutes regularly evaluate the digestibility of BOLIFOR<sup>®</sup> feed phosphates in monogastric species.

Trial results consistently demonstrate that BOLIFOR<sup>®</sup> digestibility values are at the top of the range. Trial reports and digestibility coefficients are available on request.



#### Directions for use

The superior chemical solubility and biological availability make BOLIFOR® MCP-F a top ranked granular calcium and phosphorus source. It is recommended for use in concentrates, compound feed, mineral feed and other feeds for cattle, pigs, poultry, aqua and all other animals.

#### Quality check references

Phosphorus:			
Extraction:			
- total	Comparable with Regulation (EC) No 2003/2003 method 3.1.1.		
- in 2% citric acid	Regulation (EC) No 2003/2003 method 3.1.3.		
- in alkaline ammonium citrate	Regulation (EC) No 2003/2003 method 3.1.5.1		
- in water	Regulation (EC) No 2003/2003 method 3.1.6.		
Determination	Comparable with Regulation (EC) No 2003/2003 method 3.2.		
Calcium:			
Extraction:			
LAUGUION.			
- total	Comparable with Regulation (EC) No 2003/2003 method 3.1.1.		
	Comparable with Regulation (EC) No 2003/2003 method 3.1.1. Comparable with Directive 71/250/EEC method 3.		
- total	•		
- total	•		
- total Determination	Comparable with Directive 71/250/EEC method 3.		
- total Determination pH	Comparable with Directive 71/250/EEC method 3.		

Undesirable substances	Standard specification	Typical BOLIFOR® MCP-F	Method of analysis
Fluorine (F)	Max. 2 g/kg	< 2 g/kg	ISE
Arsenic (As)	Max. 10 mg/kg	< 6 mg/kg	ICP-MS
Cadmium (Cd)	Max. 10 mg/kg	< 0.7 mg/kg	ICP-MS
Lead (Pb)	Max. 15 mg/kg	< 3 mg/kg	ICP-MS
Mercury (Hg)	Max. 0.1 mg/kg	< 0.05 mg/kg	ICP-MS
Dioxins (PCDD/F(BEQ))	Max. 0.75 ng/kg	< 0.2 ng/kg	GC-MS/MS
Dioxins + dioxin-like PCBs (PCDD/F and dl PCBs (BEQ))	Max. 1.0 ng/kg	< 0.3 ng/kg	GC-MS/MS

\*Method of Test: Method 3.2 – EC Regulation No: 2003/2003/EC.

#### Classification, labelling and packaging

Irritating – avoid eye contact. Labelling conforms to Regulation (EC) No 767/2009 of the European Parliament and of the Council and to Commission Regulation (EU) No 68/2013 Packaging available in 25 kg, 50 kg, 1000 kg, 1150 kg and bulk.

#### Handling and storage

BOLIFOR<sup>®</sup> MCP-F should be stored indoors in a dry and cool place in properly sealed packaging. When handled and stored according to instructions the shelf life is three years.

#### Transport and transport regulation

Transported on road, rail and by sea. Not classified as dangerous goods.

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Yara, Animal Nutrition is part of the Cefic Sector Group Inorganic Feed Phosphates

The information above is intended to serve as guidelines and does Not constitute a guarantee. We reserve the right to make changes.

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