

### **Knowledge grows**

# **BOLIFOR® MSP**

## Monosodium Phosphate - Feed Grade

#### Sales specification

Product Properties	
Phosphorus (P)	24%
Relative solubility in	
- 2% citric acid	99%
- alkaline ammonium citrate	98%
- water	95%
Sodium (Na)	20%
Magnesium (Mg)	1%
рН	5.5-6.5
Ash insoluble in 3N HCI	< 0.3%

Physical Properties	
Appearance	Fine granules > 95% within 0.2-1.5 mm, guaranteed when delivered from factory.
Bulk density kg/m <sup>3</sup>	950 - 1150
Water activity	aw < 0.70

#### Identification

Chemical Formula : NaH2PO4 x n H2O CAS No. 7558-80-7 EINECS No. 231-449-2

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

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

The selected raw materials, of only mineral origin, and the production process ensures an end product with good phosphorus digestibility and a content of undesirable elements well below that stipulated by EU feed legislation.

BOLIFOR<sup>®</sup> MSP appears as light beige granules which are slightly hygroscopic. The product is readily soluble in water and diluted acids. BOLIFOR<sup>®</sup> MSP is odourless but has a salty taste.

#### Nutritive value

Trial data show significant differences in phosphorus digestibility between and within the different generic types of inorganic feed phosphates. BOLIFOR® feed phosphates are regularly evaluated in terms of digestibility in monogastric species at reputable research institutes. The results show consistently that BOLIFOR® digestibility values are at the top of the range. Trial reports and digestibility coefficients are available on request.



#### Recommended use/applications

The superior chemical solubility and biological availability makes BOLIFOR® MSP a top ranked granular sodium and phosphorus source recommended for use in compound feed, mineral feed and other feeds for cattle, pigs, poultry and all animals also including pet food and aquaculture.

#### Handling and storage

BOLIFOR<sup>®</sup> MSP is slightly hygroscopic and should therefore 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, on rail and by sea. Not classified as dangerous goods.

#### 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	

Calcium:	
Extraction:	
- total	Comparable with Regulation (EC) No 2003/2003 method 3.1.1.
Determination	Comparable with Directive 71/250/EEC method 3.
рН	1% solution, in water
Ash insoluble in 3N HCl	Directive 71/250/EEC method 6.

Acetone wash, ambient temperature

#### MSP (macromineral requirements)

Moisture (mechanical free water)

	Requirements (%) <sup>a, b, c</sup>		
	Total Na	Digestible P	Total Ca
pre starter piglets	0,40	0,41	0.85
starter piglets	0,35	0,36	0,80
transition cow (2nd lactation)	0,12	0,35*	1,00
broiler prestarter feed	0,11-0,35	0,33-0,75	0,62-1,3

a) NRC b) FEDNA c) CVB \* Total P

#### Classification, labelling and packaging

The product is not classified as hazardous according to EU regulations. Labelling conforms to Regulation (EC) No 767/2009 of the European Parliament and of the Council and to Commission Regulation (EU) 68/2013. Packaging available in 50 kg, 1000 kg and bulk.

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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. Valid from 2014-05-01.

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Version 01/2017

