

PRODUCT SPECIFICATION DATA SHEET

FOOD



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DESCRIPTION

General Description Orthophosphoric acid food grade Colourless, odourless, transparent syrupy liquid.		Date effective – edition February, 2018 – 01
Grade Food grade	E number(s) E 338	Formula H ₃ PO ₄
Molecular weight 98	Feed additive number 1a338	Transport Class 8 – UN 1805 – Packing group III
EINECS 231-633-2	CAS number 7664-38-2	Fire Schedule: F-A ; S-B

PRODUCT CHARACTERISTICS

Chemical properties	Unit	Typical analysis	Specifications	Methods			
H ₃ PO ₄	(*) %	75.0 80.0 81.5 (-0.3, +0.7)	85.0 (-0.0, +0.7)	PLC 10 PLC 11			
<u>Impurities content</u>							
Pb	ppm	< 0.2	0.5 Max.	PICP 01			
As	ppm	0.1	0.5 Max.	PICP 04			
F	ppm	2.2	5.0 Max.	PLC 14			
Cd	ppm	< 0.1	0.2 Max.	PICP 01			
Hg	ppm	< 0.05	0.05 Max.	PICP 04			
Heavy metals (as Pb)	ppm	< 5	5 Max.	PLC 08 (**)			
Fe	ppm	2.9	5.0 Max.	PICP 01			
Cu	ppm	< 0.1	1.0 Max.	PICP 01			
Ni	ppm	0.1	1.0 Max.	PICP 01			
Cl	ppm	< 5.0	10.0 Max.	PLC 04			
SO ₄	ppm	80.0	100.0 Max.	PICP 01			
Volatile acids (as acetic acid)	ppm	≤ 10	10 Max.	JECFA (1995)			
Nitrates (as NaNO ₃)	ppm	≤ 5	5 Max.	ELC 48			
<u>Physical properties</u>							
APHA color	Hazen		15 Max.	PLC 26			
H₃PO₄ Concentration	P₂O₅	Density	Viscosity	Freezing point	Boiling point	Weight of acid	Volume of acid
%	%	g/ml @ 20 °C	cP @ 30 °C	°C	°C	mT per mT P ₂ O ₅	m ³ per mT P ₂ O ₅
75.0	54.3	1.576	16	- 20	135	1.842	1.169
80.0	58.0	1.631	21	+ 4	150	1.7214	1.057
81.5	59.0	1.648	25	+ 7	152	1.695	1.029
85.0	61.5	1.689	32	+ 21	158	1.626	0.963

(*) Other concentrations are available upon request

(**) Results based on the ICP analysis of the elements defined by the FCC

HACCP

Control measure	Title	Critical limits tested by our means	Acceptable level
CCP 1A – Boat loading	Chemical contamination and foreign particles due to a bad cleaning	SOP Control on boats before loading: passes	No non-conformities
CCP 1B – Truck loading	Chemical contamination and foreign particles due to a bad cleaning	SOP Control on trucks before loading: passes	No non-conformities

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STORAGE & SHELF LIFE

Bulk storage only in SS 316 LC tanks or rubber lined vessels
 Drums and plastic containers: Keep protect from direct light. Storage temperature, refer to the product freezing point. Maximum double stacking on pallet.
 Best before: 2 years after production date in appropriate storage conditions.

MAIN APPLICATIONS

Food Applications:

- Acidulant in soft drinks
- Purification and processing of drinking water
- Cane sugar refining
- Vegetable oil degumming
- Yeast nutrient
- Production of food grade phosphate salts
- Pet food: preservative (all animal species)
- Fermentation process: MSG.

Pharmaceutical Applications:

- Enzymes production
- Penicillin production

Technical Applications:

- Textile and fibre industries
- Anti-freeze
- Production of foliar fertilizers and water
- Soluble fertilizers
- Production of I&I cleaners and detergents
- Metal treatment (metal cleaning, phosphatizing, electroplating, ...)
- Production of phosphate salts
- Water treatment
- Activated carbon
- Enamels industry
- Manufacture of caprolactam
- Production of pigments
- Refectories ceramics and iron foundry
- Biodiesel production

Plant location	Puurs – Belgium
Packaging types	Bulk deliveries – Drums – Plastic containers on pallets (IBC's)
Handling precautions	See MSDS

CERTIFICATIONS

ISO 9001 (Quality) – OHSAS 18001 (Security) – ISO 14001 (Environment) – FSSC 22000 (Food Safety) – ISO 50001 (Energy) – Kosher Pareve Passover – Halal – NSF / ANSI Std. 60 (Drinking Water Treatment Chemicals)

REGULATIONS

Meets the requirements of current European Community regulations for Food additives (Council Regulation 2012/231/EC), as well as the current edition of the Food Chemical Codex (FCC). Are subject to a quantitative limitation fixed by the consolidated edition of the European Community Regulation 2008/1333/EC – Annex II.
 Meets the requirements of Regulation 1831/2003/EC on additives for use in animal nutrition. Directive 2002/32/EC on undesirable substances in animal feed.
 Prayphos™ Codex 85 % complies with the specifications of the current European Pharmacopoeia and US Pharmacopoeia.

MICROBIOLOGICAL DATA

This product is not conducive to microbial development or growth. The microbial innocuousness is supported by the properties of the raw materials, the manufacturing processes and the physiochemical properties of the end product.



WATER QUALITY
 Drinking Water Treatment Additive
 NSF/ANSI Standard 60
 18 YN
 Maximum use level : 13.8 mg/L

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NUTRITIONAL DATA

Nutritional data (USA)	Value per 100 g	Unit	Nutritional data (EU)	Value per 100 g	Unit
Calories	0	Kcal	Energy	0	kJ
Total fat	0	g		0	kcal
of which saturated fat	0	g	Fats	0	g
of which trans fat	0	g	of which saturated fat	0	g
Cholesterol	0	mg	Carbohydrates	0	g
Total carbohydrate	0	g	of which sugars	0	g
of which dietary fibers	0	g	Fibers	0	g
of which sugars	0	g	Proteins	0	g
Protein	0	g	Salt	0	g
Vitamin D	0	mg			
Ascorbic Acid	0	mg			
Thiamin	0	mg			
Riboflavin	0	mg			
Niacin	0	mg			
Vitamin B6 & B12	0	mg			
Sodium	0	mg			
Phosphorus*	23 714	mg			
Potassium	0	mg			
Calcium	0	mg			
Iron	0	mg			

* Phosphorus data calculated for orthophosphoric acid 75% - can be calculated for other concentrations

ALLERGEN

The following allergens and derivatives thereof are negative, not present or absent within the product, the production process, the production line and there is no risk for cross contamination

Major allergens	Other allergens/Intolerance
Cereals containing gluten, namely: wheat (such as spelt and khorasan wheat), rye, barley, oats or their hybridised strains	Fruits
Crustaceans	Legumin
Eggs	Umbelliferous
Fish	Poppy seed
Peanuts	Sunflower seed
Soybeans	Yeast
Milk (including lactose)	Vegetable oils
Nuts i.e. Almond (<i>Amygdalus communis</i> L.), Hazelnuts (<i>Corylus avellanas</i>), Walnuts (<i>Juglans regia</i>), Cashews (<i>Anacardium occidentale</i>), Pecan nuts (<i>Carya illinoensis</i> (Wangenh) K.Koch), Brazil nuts (<i>Bertholletia excelsa</i>), Pistachio nuts (<i>Pistacia vera</i>), Macadamia nuts and Queensland nuts (<i>Macadamia termifolia</i>)	Glutamate
Celery	Paprika
Mustard	Vanillin
Sesame seeds	Coriander
Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre expressed as SO ₂	Cinnamon
Lupin	Cocoa
Molluscs	Artificial & natural flavourings
Other allergens/Intolerance	Artificial & natural colours (including E102, E110, E122, E123, E124)
Animals products (including gelatin)	Sugars & sweeteners
Propolis, honey, bee pollen, royal jelly	Benzoic acid (E210=>E213)
Vegetables	Sorbic acid (E200=>203)
	BHA/BHT (E320=>E321)
	Paraben (E214=>E219)
	Gallate (E310)
	FDC #5
	Brilliant black PR



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STATEMENTS

GMO: This product is not genetically modified or not derived from a genetically modified organism as defined by the EC regulations 1829/2003/EC. This product is not concerned by the requirements of the regulation 1830/2003/EC in term of traceability and labelling relating to GMO or containing GMO.

Animal derivatives: The raw materials used in the production of these products are derived from naturally occurring mined and purified products. They do not contain material of animal origin or animal derivative
There is no BSE or TSE contamination risk during manufacturing. The finished product does not contain materials with the risk of Bovine Spongiform Encephalopathy (BSE) or Transmissible Spongiform Encephalopathy (TSE).

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

Ionisation: This product is not treated with ionising radiation according to the Directive 1999/2/EC of the European parliament and of the council of 22 February 1999 on the approximation of the laws of the Member States concerning foods and food ingredients treated with ionising radiation

Packaging food grade: the packaging is in conformity with the following regulation 10/2011/UE on plastic materials and articles intended to come into contact with food & regulation 1935/2004/EC relating to materials and articles intended to come into contact with food

MISCELLANEOUS

Although the information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof, Prayon makes no representations or warranties as to the completeness or accuracy. Information is supplied upon the condition that 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. In no event will Prayon be responsible for damages of any nature resulting from the use of or reliance upon information or the product to which information refers. Nothing contained herein is to be construed as a recommendation to use any product, process, equipment or formulation in conflict with any patent and Prayon makes no representation or warranty, express or implied, that the use thereof will not infringe any patent. The typical data set forth herein are based on samples tested and are not guaranteed for all samples or applications. The product specification limits are subject to change. Please contact Prayon for the most current data sheet. Deliveries are governed by the general sale conditions defined by Prayon.

VALIDITY

Subject to modification of the formulation of the product, the manufacturing process or the regulations, the validity of this sheet is 3 years