



PHOSPHATES & ADDITIVES FOR ANIMAL NUTRITION





GlobalFeed has spent over 15 years working on the production and commercialisation of technological **Phosphates**, Sulphates (Iron) and **Additives** under the aegis of **Grupo Tervalis**. We are **the leading company in the animal nutrition** market because we are consistently dynamic and **continue to grow** through industrial and commercial developments. We meet all our **national** and **international** objectives and are always focused on customer satisfaction.

Plant and Animal nutrition



Division focused on fertiliser production (in our 18 plants) and commercialisation. Over 25 years of keen investment in R&D, which has enabled us to have an extensive catalogue, covering all plant nutrition needs.



Services



Division focused on animal nutrition, energy, services and agri-food activity.



Social



10 years providing primary services to those without access to the resources they need: Sheltered workshops; work with the Food Bank and on Social Aid and Development Cooperation Projects.

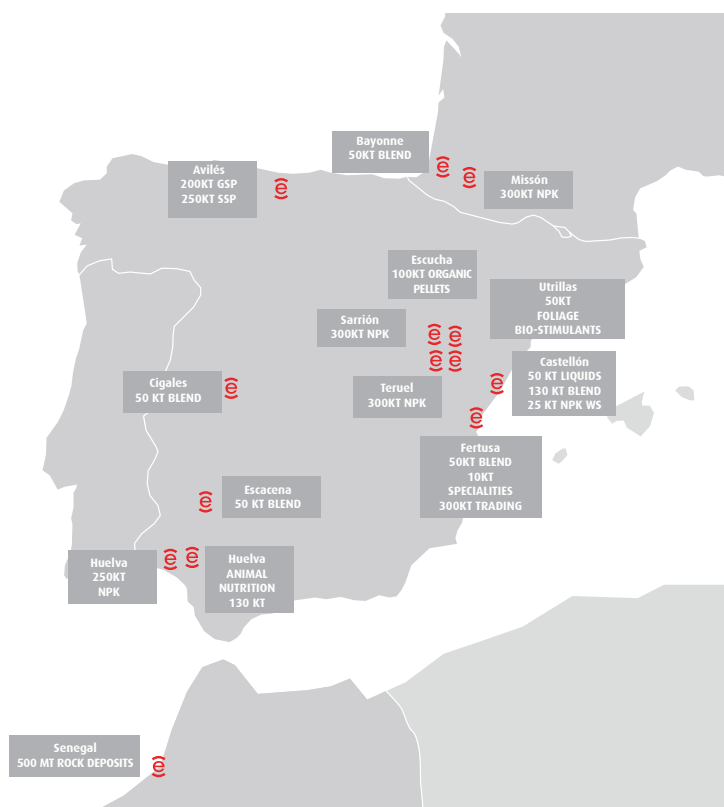


Since the **TERVALIS** group (a cluster of over 90 operating companies) was founded in **1986**, there has been a **sales turnover of some 500 million Euros** while, as of 2018, there are now over **1500 employees**.

These results have been achieved due to the hard work and professionalism of our employees, obtaining the necessary economic and human resources to increase our **industrial and commercial development**, meeting our **international targets**.



INDUSTRY LEADER



Utrillas - Liquids, specialties (Spain)



Castellón - Water-based, logistics (Spain)



Sarrión - Grains (Spain)



Missón - Grains (France)



Avilés - S.S.P. (Spain)



Teruel - Grains (Spain)

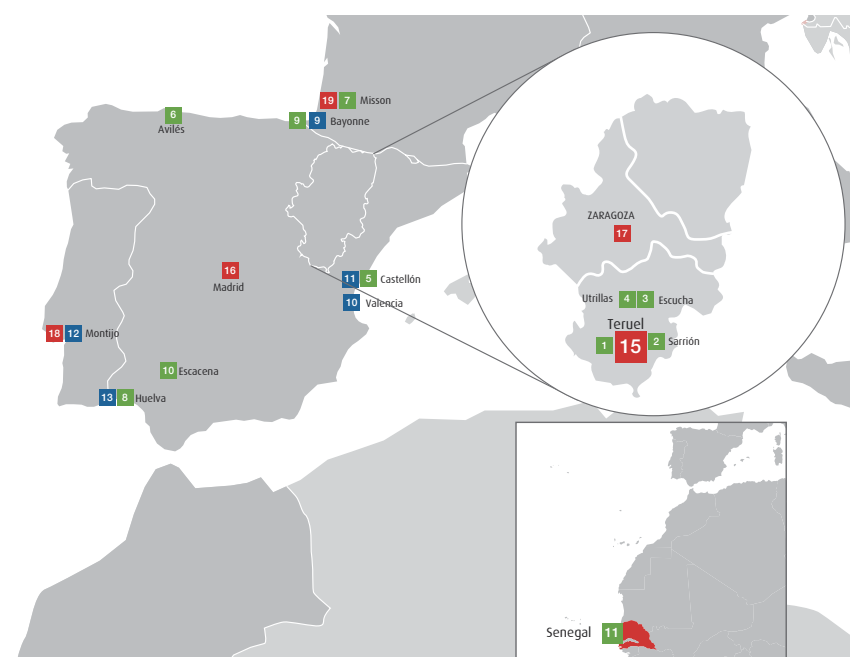


Huelva - Water soluble, grains (Spain)



Escucha - Organo-minerals (Spain)

LOGISTICS



Plants

1. Teruel: Grains
2. Sarrión: Grains
3. Escucha: Organo-minerals
4. Utrillas: Liquids, specialties
5. Castellón: WSF, logistics
6. Avilés: S.S.P.
7. Missón: Grains
8. Huelva: Phosphates
9. Bayonne: Blending
10. Escacena: Blending
11. Senegal: Phosphorite mining

Port & logistics centres

9. Bayonne
10. Valencia
11. Castellón
12. Montijo
13. Huelva

Offices

15. Teruel (Head Office)
16. Madrid
17. Zaragoza
18. Montijo (Portugal)
19. Missón (France)



GLOBALFEED arose out a significant investment in the commercialisation of raw materials intended for the **animal nutrition** sector. Now, there are over 50 people in this Great Team, which we continue to strengthen through notable investment in **R&D, production, finance and sales**, endorsed by the **GMP+** (Good Manufacturing Practices) certificate, and by CAAE (Andalusian Organic Farming Certifier) and in the most avant garde facilities in Europe - located in Huelva and Teruel (Spain).

There are 2 lines of business:

- **Technological Phosphates, Ferrous Sulphate and Minerals.**
- Vitamin complements, alternatives to antibiotics, etc.
- Nutraceuticals for animal health and nutrition.

- **2 production centres + R&D:** Utrillas (Teruel) & Huelva.
- **It has the most advanced plant in Europe**, with a production capacity of **150,000 tons of phosphates** per year and **30,000 tons of ferrous sulphate**, for both animal and vegetable nutrition.
- It has the **GMP+ and CAAE certificates**.
- Present **across the five continents** as a result of a trade network spread over 40 countries.
- The **goal for 2019:** Commercialization of a Phytase developed in our own R&D Department.



Globalfeed is an ever more active agent in other countries and is making giant strides in the **internationalisation process** which is one of the key components in the company's **business plan**. Thus, the company is expanding and investing all resources necessary to achieve this goal.

We have our own animal nutrition **R&D department**, which has a continuous research plan that keeps us always at the forefront in **new product development** with guaranteed **reliability and safety**.





GlobalFeed



Identification

Chemical name: DICALCIUM PHOSPHATE, DCP

CE No.: 231-826-I

Registration N°: ESP 21 000015

GMP+: GMP009988



Technology

GlobalFeed Dicalcium Phosphate is the first in Spain to be directly sourced using our **GlobalPhos** technology. This production technology is based on a direct reaction of phosphoric acid with a calcium source, raw materials that are both suitable for animal nutrition.



Description

Next gen **Dicalcium Phosphate**: Uniquely positioned, with water solubility > 45%. Presentation: powder. With this mineral-sourced phosphate in their rations, the needs of high producing animals are covered, improving performance in growth, fertility and conversion indexes. Phosphorus is essential to, among other processes, ATP formation, nucleic acid synthesis and bone formation.



Instructions for use

As a raw material in the formula of products intended for animal feed. It is not intended at any stage to be consumed directly by the animals. As per European Parliament and Council Directive 2002/32/CE, dated 7 May 2002, on undesirable substances in animal feed, Regulation (CE) 574/2011 on maximum content of undesirable substances and Commission Regulation (EU) No. 68/2013, dated 16 January 2013, related to the Catalogue of raw materials for feeds.

DICALCIUM PHOSPHATE

MINERAL SUBSTANCE-SOURCED RAW MATERIAL FOR ANIMAL NUTRITION





Food quality and safety

From an environmental perspective, the Dicalcium Phosphate production process is fully environmentally friendly and generates no chemical waste. GlobalFeed is registered in the General Registry of Establishments in the Animal Feed Sector (α ESP 21 000015), per Directive 95/69/CE, both as a producer and as a trader. It also has the GMP+ certificate of good manufacturing practices (GMP009988), which guarantees the integrity of the production process and its compliance with safety regulations in all the links in the food chain - thus increasing client confidence.



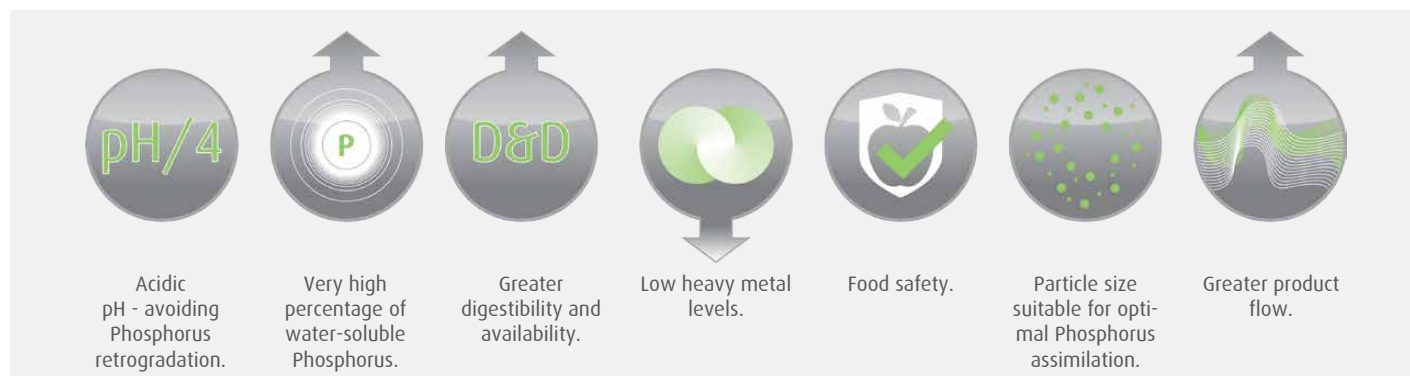
Handling & storage

Store in dry places where the temperature is not very high. Do not leave near to open heat sources. Best used within: 3 years from bagging, under normal storage conditions.



Commitment

GlobalPhos® Technology is respectful to the environment, ensuring waste and pollutants are not emitted.



Technical Specifications

Product properties

Chemical composition	
	Value
P total	18,0%
Ca	>21%
Solubility in citric acid/Water solubility	>98%/>45%
Moistness	<2,5% (%p/p)
Metal content	
	Maximum value
As	<10 ppm (12% moistness)
Cd	<10 ppm (12% moistness)
Pb	<15 ppm (12% moistness)
Hg	< 0,1 ppm
F	<2000 ppm
Physical properties	
Density	0,7-1 gr/ml
Granulometry	Min. Grading 90% <400 micron
Appearance	White solid
pH (10%)	3-4
Dioxins	
Dioxins	<0.75 ng EQT PCDD/F OMS/Kg (12% moistness)
Dioxins most proximate to PCB	<1 ng EQT PCDD/F OMS/Kg (12% moistness)
PCB least proximate to dioxins	< 10 µg/kg (12% moistness)

Format/Packaging:
Big Bag, 25 kg plastic bag and bulk.
Storage:
Store in dry places and at temperatures not higher than 25°C. Avoid exposure to moisture, changes in temperature and the direct action of heat sources. Stack in such a way that the first sacks to enter are the first to leave, avoiding stacking of more than 1 pallet / BB for prolonged periods.
Minimum Durability:
36 months from production, under normal storage conditions.
To apply:
As a raw material in the formula of products intended for animal feed. It is not intended at any stage to be consumed directly by the animals.
Restrictions on use:
Those determined for the end use of the product for which it is made.
Environment / Health / Safety / Handling:
See safety sheet.



GlobalFeed



Identification

Chemical name: MONOCALCIUM PHOSPHATE, MCP

CE No.: 231-837-1

Registration N°: ESP 21 000015

GMP+: GMP009988



Technology

GlobalFeed Monocalcium Phosphate is the first in Spain to be directly sourced using our **GlobalPhos®** technology. This production technology is based on a direct reaction of phosphoric acid with a calcium source, raw materials that are both suitable for animal nutrition.



Description

Monocalcium Phosphate with over 85% solubility. Presentation: grain. Suitable for production of 'complete feeds'. With this mineral-sourced phosphate in their rations, the needs of high producing animals are covered, improving performance in growth, fertility and conversion indexes. Phosphorus is essential to, among other processes, ATP formation, nucleic acid synthesis and bone formation.



Instructions for use

As a raw material in the formula of products intended for animal feed. It is not intended at any stage to be consumed directly by the animals. As per European Parliament and Council Directive 2002/32/CE, dated 7 May 2002, on undesirable substances in animal feed, Regulation (CE) 574/2011 on maximum content of undesirable substances and Commission Regulation (EU) No. 68/2013, dated 16 January 2013, related to the Catalogue of raw materials for feeds.

MONOCALCIUM PHOSPHATE (Grain)

MINERAL SUBSTANCE-SOURCED RAW MATERIAL FOR ANIMAL NUTRITION





Food quality and safety

From an environmental perspective, the Monocalcium Phosphate production process is fully environmentally friendly and generates no chemical waste. GlobalFeed is registered in the General Registry of Establishments in the Animal Feed Sector (α ESP 21 000015), per Directive 95/69/CE, both as a producer and as a trader. It also has the GMP+ certificate of good manufacturing practices (GMP009988), which guarantees the integrity of the production process and its compliance with safety regulations in all the links in the food chain - thus increasing client confidence.



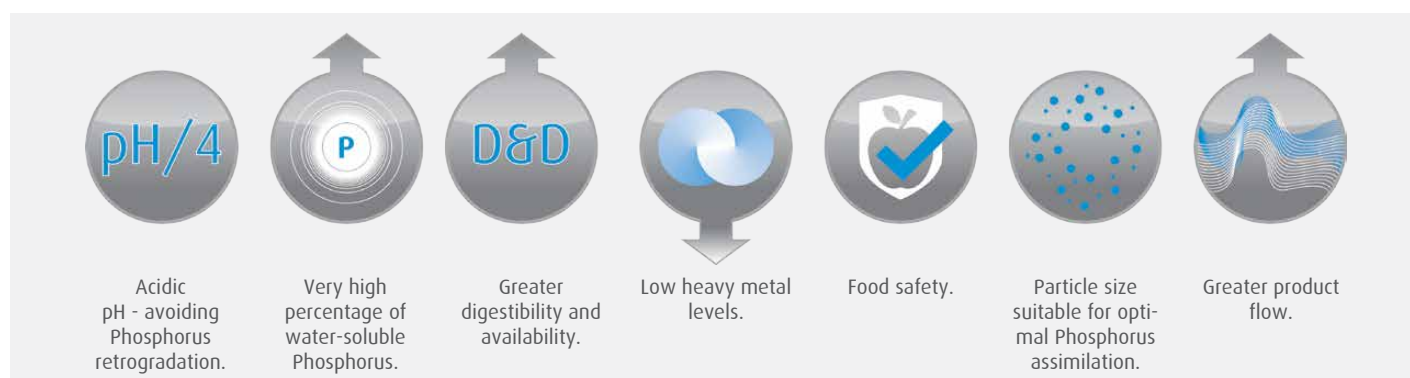
Handling & storage

Store in dry places where the temperature is not very high. Do not leave near to open heat sources. Best used within: 3 years from bagging, under normal storage conditions.



Commitment

GlobalPhos® Technology is respectful to the environment, ensuring waste and pollutants are not emitted.



Technical Specifications

Product properties

Chemical composition	
	Value
P total	22,2-23,2%
Ca	>16%
Citrate-soluble	>98%
Water-soluble	>85%
Moistness	<2,5% (%p/p)
Metal content	
	Maximum value
As	<10 ppm (12% moistness)
Cd	<10 ppm (12% moistness)
Pb	<15 ppm (12% moistness)
Hg	< 0,1 ppm
F	<2000 ppm
Physical properties	
Density	0,8-1,1 gr/ml
Granulometry	Min. Grading 90% between 0.4-1.8 mm
Appearance	White solid
pH (10%)	3-4
Solubility	Water-soluble

Dioxins	
Dioxins	<0.75 ng EQT PCDD/F OMS/Kg (12% moistness)
Dioxins most proximate to PCB	<1 ng EQT PCDD/F OMS/Kg (12% moistness)
PCB least proximate to dioxins	< 10 µg/kg (12% moistness)
Format/Packaging:	
Big Bag, 25 kg plastic bag and bulk.	
Storage:	
Store in dry places and at temperatures not higher than 25°C. Avoid exposure to moisture, changes in temperature and the direct action of heat sources. Stack in such a way that the first sacks to enter are the first to leave, avoiding stacking of more than 1 pallet / BB for prolonged periods.	
Minimum Durability:	
36 months from production, under normal storage conditions.	
To apply:	
As a raw material in the formula of products intended for animal feed. It is not intended at any stage to be consumed directly by the animals.	
Restrictions on use:	
Those determined for the end use of the product for which it is made.	
Environment / Health / Safety / Handling:	
See safety sheet.	



GlobalFeed



Identification

Chemical name: MONOCALCIUM PHOSPHATE, MCP

CE No.: 231-837-1

Registration N°: ESP 21 000015

GMP+: GMP009988



Technology

GlobalFeed Monocalcium Phosphate is the first in Spain to be directly sourced using our **GlobalPhos®** technology. This production technology is based on a direct reaction of phosphoric acid with a calcium source, raw materials that are both suitable for animal nutrition.



Description

Monocalcium Phosphate with over 85% solubility. Presentation: mini-meal. Covering requirements among manufacturers for vitamin-mineral pre-mixes and complementary feed. With this mineral-sourced phosphate in their rations, the needs of high producing animals are covered, improving performance in growth, fertility and conversion indexes. Phosphorus is essential to, among other processes, ATP formation, nucleic acid synthesis and bone formation.



Instructions for use

As a raw material in the formula of products intended for animal feed. It is not intended at any stage to be consumed directly by the animals. As per European Parliament and Council Directive 2002/32/CE, dated 7 May 2002, on undesirable substances in animal feed, Regulation (CE) 574/2011 on maximum content of undesirable substances and Commission Regulation (EU) No. 68/2013, dated 16 January 2013, related to the Catalogue of raw materials for feeds.

MONOCALCIUM PHOSPHATE (Mini-semolina)

MINERAL SUBSTANCE-SOURCED RAW MATERIAL FOR ANIMAL NUTRITION





Food quality and safety

From an environmental perspective, the Monocalcium Phosphate production process is fully environmentally friendly and generates no chemical waste. GlobalFeed is registered in the General Registry of Establishments in the Animal Feed Sector (α ESP 21 000015), per Directive 95/69/CE, both as a producer and as a trader. It also has the GMP+ certificate of good manufacturing practices (GMP009988), which guarantees the integrity of the production process and its compliance with safety regulations in all the links in the food chain - thus increasing client confidence.



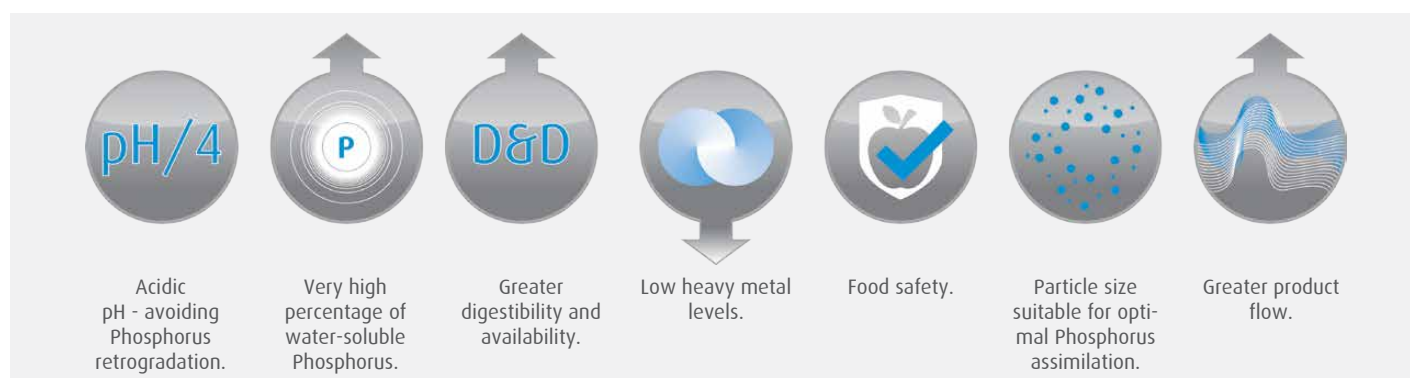
Handling & storage

Store in dry places where the temperature is not very high. Do not leave near to open heat sources. Best used within: 3 years from bagging, under normal storage conditions.



Commitment

GlobalPhos® Technology is respectful to the environment, ensuring waste and pollutants are not emitted.



Technical Specifications

Product properties

Chemical composition	
	Value
P total	22,2-23,2%
Ca	>16%
Citrate-soluble	>98%
Water-soluble	>85%
Moistness	<2,5% (%p/p)
Metal content	
	Maximum value
As	<10 ppm (12% moistness)
Cd	<10 ppm (12% moistness)
Pb	<15 ppm (12% moistness)
Hg	< 0,1 ppm
F	<2000 ppm
Physical properties	
Density	0,8-1,1 gr/ml
Granulometry	Min. Grading 90% between 0.2-1.25 mm
Appearance	White solid
pH (10%)	3-4
Solubility	Water-soluble

Dioxins	
Dioxins	<0.75 ng EQT PCDD/F OMS/Kg (12% moistness)
Dioxins most proximate to PCB	<1 ng EQT PCDD/F OMS/Kg (12% moistness)
PCB least proximate to dioxins	< 10 µg/kg (12% moistness)
Format/Packaging:	
Big Bag, 25 kg plastic bag and bulk.	
Storage:	
Store in dry places and at temperatures not higher than 25°C. Avoid exposure to moisture, changes in temperature and the direct action of heat sources. Stack in such a way that the first sacks to enter are the first to leave, avoiding stacking of more than 1 pallet / BB for prolonged periods.	
Minimum Durability:	
36 months from production, under normal storage conditions.	
To apply:	
As a raw material in the formula of products intended for animal feed. It is not intended at any stage to be consumed directly by the animals.	
Restrictions on use:	
Those determined for the end use of the product for which it is made.	
Environment / Health / Safety / Handling:	
See safety sheet.	



GlobalFeed



Identification

Chemical name: MONOCALCIUM PHOSPHATE, MCP

CE No.: 231-837-1

Registration N°: ESP 21 000015

GMP+: GMP009988



Technology

GlobalFeed Monocalcium Phosphate is the first in Spain to be directly sourced using our **GlobalPhos®** technology. This production technology is based on a direct reaction of phosphoric acid with a calcium source, raw materials that are both suitable for animal nutrition.



Description

Monocalcium Phosphate with over 85% solubility. Presentation: powder. Suitable for factories producing pre-ground and high percentage of granulated feed. With this mineral-sourced phosphate in their rations, the needs of high producing animals are covered, improving performance in growth, fertility and conversion indexes. Phosphorus is essential to, among other processes, ATP formation, nucleic acid synthesis and bone formation.



Instructions for use

As a raw material in the formula of products intended for animal feed. It is not intended at any stage to be consumed directly by the animals. As per European Parliament and Council Directive 2002/32/CE, dated 7 May 2002, on undesirable substances in animal feed, Regulation (CE) 574/2011 on maximum content of undesirable substances and Commission Regulation (EU) No. 68/2013, dated 16 January 2013, related to the Catalogue of raw materials for feeds.

MONOCALCIUM PHOSPHATE (Powder)

MINERAL SUBSTANCE-SOURCED RAW MATERIAL FOR ANIMAL NUTRITION





Food quality and safety

From an environmental perspective, the Monocalcium Phosphate production process is fully environmentally friendly and generates no chemical waste. GlobalFeed is registered in the General Registry of Establishments in the Animal Feed Sector (α ESP 21 000015), per Directive 95/69/CE, both as a producer and as a trader. It also has the GMP+ certificate of good manufacturing practices (GMP009988), which guarantees the integrity of the production process and its compliance with safety regulations in all the links in the food chain - thus increasing client confidence.



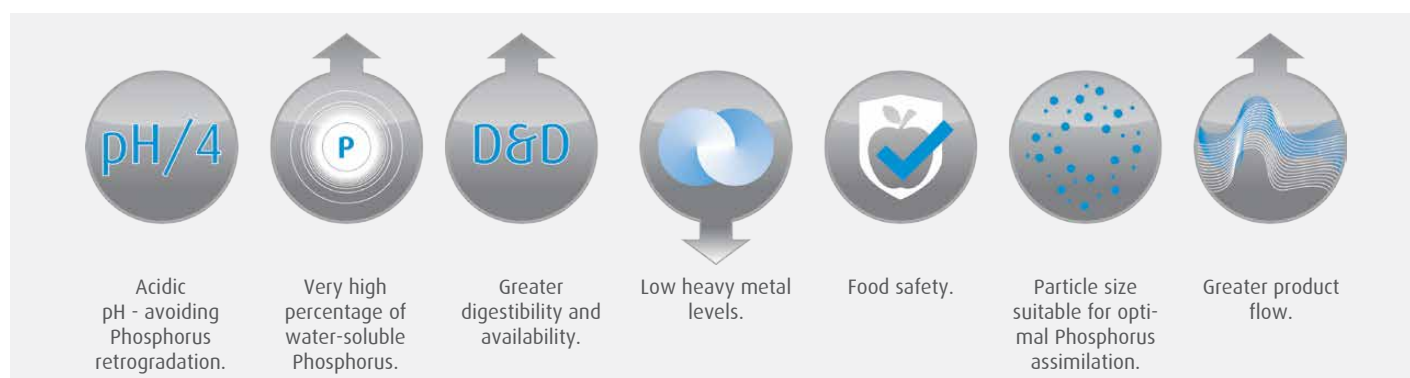
Handling & storage

Store in dry places where the temperature is not very high. Do not leave near to open heat sources. Best used within: 3 years from bagging, under normal storage conditions.



Commitment

GlobalPhos® Technology is respectful to the environment, ensuring waste and pollutants are not emitted.



Technical Specifications

Product properties

Chemical composition	
	Value
P total	22,2-23,2%
Ca	>16%
Citrate-soluble	>98%
Water-soluble	>85%
Moistness	<2,5% (%p/p)
Metal content	
	Maximum value
As	<10 ppm (12% moistness)
Cd	<10 ppm (12% moistness)
Pb	<15 ppm (12% moistness)
Hg	< 0,1 ppm
F	<2000 ppm
Physical properties	
Density	0,8-1,1 gr/ml
Granulometry	Min. Grading 90% <400 micron
Appearance	White solid
pH (10%)	3-4
Solubility	Water-soluble

Dioxins	
Dioxins	<0.75 ng EQT PCDD/F OMS/Kg (12% moistness)
Dioxins most proximate to PCB	<1 ng EQT PCDD/F OMS/Kg (12% moistness)
PCB least proximate to dioxins	< 10 µg/kg (12% moistness)
Format/Packaging:	
Big Bag, 25 kg plastic bag and bulk.	
Storage:	
Store in dry places and at temperatures not higher than 25°C. Avoid exposure to moisture, changes in temperature and the direct action of heat sources. Stack in such a way that the first sacks to enter are the first to leave, avoiding stacking of more than 1 pallet / BB for prolonged periods.	
Minimum Durability:	
36 months from production, under normal storage conditions.	
To apply:	
As a raw material in the formula of products intended for animal feed. It is not intended at any stage to be consumed directly by the animals.	
Restrictions on use:	
Those determined for the end use of the product for which it is made.	
Environment / Health / Safety / Handling:	
See safety sheet.	



GlobalFeed



Identification

Chemical name:

FOSFATO MONODICALCICO, MDCP

CE No.: 231-826-I

Registration N°: ESP 21 000015

GMP+: GMP009988



Technology

GlobalFeed Dicalcium Phosphate is the first in Spain to be directly sourced using **GlobalPhos®** technology. This production technology is based on a direct reaction of phosphoric acid and a calcium source, raw materials that in both cases are suitable for animal nutrition.



Description

GlobalFeed adapts to the requirements of the different world markets with a flexibility in the design of specific products. The high digestibility Monocalcium Phosphate is indicated for the Asian and American markets. With this mineral-sourced phosphate in their rations, the needs of high producing animals are covered, improving performance in growth, fertility and conversion indexes. Phosphorus is essential to, among other processes, ATP formation, nucleic acid synthesis and bone formation.



Instructions for use

As a raw material in the formula of products intended for animal feed. It is not intended at any stage to be consumed directly by the animals. As per European Parliament and Council Directive 2002/32/CE, dated 7 May 2002, on undesirable substances in animal feed, Regulation (CE) 574/2011 on maximum content of undesirable substances and Commission Regulation (EU) No. 68/2013, dated 16 January 2013, related to the Catalogue of raw materials for feeds

MONODICALCIUM PHOSPHATE

MINERAL SUBSTANCE-SOURCED RAW MATERIAL FOR ANIMAL NUTRITION





Food quality and safety

From an environmental perspective, the Monocalcium Phosphate production process is fully environmentally friendly and generates no chemical waste. GlobalFeed is registered in the General Registry of Establishments in the Animal Feed Sector (α ESP 21 000015), per Directive 95/69/CE, both as a producer and as a trader. It also has the GMP+ certificate of good manufacturing practices (GMP009988), which guarantees the integrity of the production process and its compliance with safety regulations in all the links in the food chain - thus increasing client confidence.



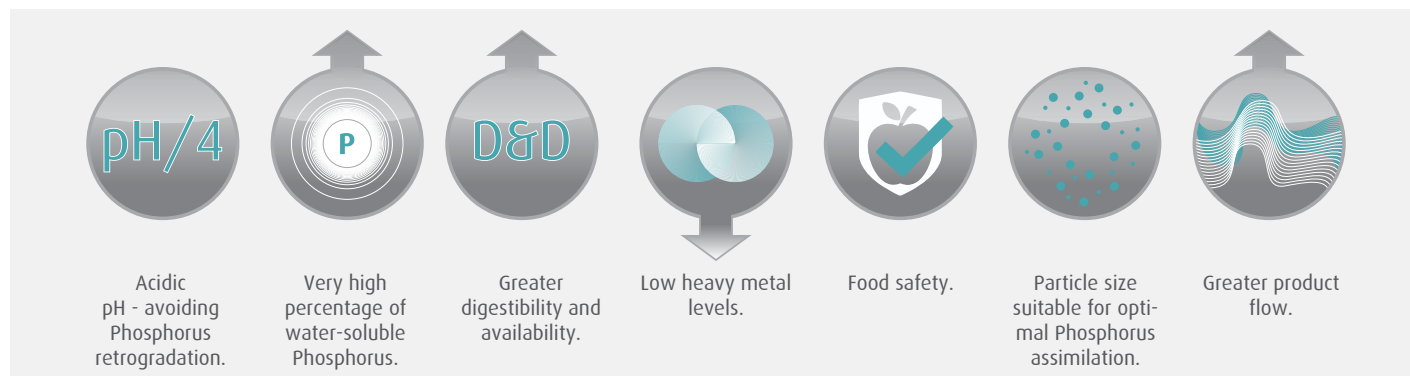
Handling & storage

Store in dry places where the temperature is not very high. Do not leave near to open heat sources. Best used within: 3 years from bagging, under normal storage conditions.



Commitment

GlobalPhos® Technology is respectful to the environment, ensuring waste and pollutants are not emitted.



Technical Specifications

Product properties

Chemical composition	
	Value
P total	21,0%
Ca	>18,0%
Citrate-soluble /Water-soluble	>98%/75%
Moistness	<2,5% (%p/p)
Metal content	
	Maximum value
As	<10 ppm (12% moistness)
Cd	<10 ppm (12% moistness)
Pb	<15 ppm (12% moistness)
Hg	< 0,1 ppm
F	<2000 ppm
Propiedades físicas	
Density	0,8-1 gr/ml
Granulometry	Min. Grading 90% between 0.4-1.8 mm
Appearance	White solid
pH (10%)	3-4
Dioxins	
Dioxins	<0.75 ng EQT PCDD/F OMS/Kg (12% moistness)
Dioxins most proximate to PCB	<1 ng EQT PCDD/F OMS/Kg (12% moistness)
PCB least proximate to dioxins	< 10 µg/kg (12% moistness)

Format/Packaging:

Big Bag, 25 kg plastic bag and bulk.

Storage:

Store in dry places and at temperatures not higher than 25°C. Avoid exposure to moisture, changes in temperature and the direct action of heat sources. Stack in such a way that the first sacks to enter are the first to leave, avoiding stacking of more than 1 pallet / BB for prolonged periods.

Minimum Durability:

36 months from production, under normal storage conditions.

To apply:

As a raw material in the formula of products intended for animal feed. It is not intended at any stage to be consumed directly by the animals.

Restrictions on use:

Those determined for the end use of the product for which it is made.

Environment / Health / Safety / Handling:

See safety sheet.



GlobalFeed



Identification

Chemical name: SODIUM-CALCIUM PHOSPHATE

CE No.: 231-426-3

Registration N°: ESP 21 000015

GMP+: GMP009988



Technology

GlobalFeed Sodium-Calcium Phosphate is the first in Spain to be directly sourced using **GlobalPhos®** technology. This production technology is based on a direct reaction of phosphoric acid and a source of calcium and sodium, raw materials that in both cases are suitable for animal nutrition.



Description

Sodium-Calcium Phosphate, with 5% Sodium. By adding in this mineral-based product, all the phosphorus needs of high-yield animals are covered. We increase the provision of calcium compared to other systems and, most importantly, by including Sodium, we achieve the desired electrolytic balance for each formula.



Instructions for use

As a raw material in the formula of products intended for animal feed. It is not intended at any stage to be consumed directly by the animals. Adjustment to EU legislation is made with regard to the maximum allowable undesirable substance content as established in Directive 2002/32/CE from the European Parliament and the Council, dated 7 May 2002, Regulation (CE) 574/2011 and Regulation (EU) No. 68/2013 from the Commission, dated 16 January 2013, on the Catalogue of raw materials for feed.

SOCALPHOS 20/5

MINERAL
SUBSTANCE-SOURCED
RAW MATERIAL FOR
ANIMAL NUTRITION





Food quality and safety

GlobalFeed is Authorised and Registered as an Animal Feed Sector Establishment, with Identification No: α ESP 21 000015, per the hygiene for feed legislation for activities as a producer and trader. It also has the GMP+ certificate of good manufacturing practices (GMP009988), which guarantees the integrity of the production process and its compliance with health and safety regulations in all the links in the food chain - thus increasing client confidence. From an environmental perspective, the SocalPhos production process is fully environmentally friendly and generates no chemical waste.



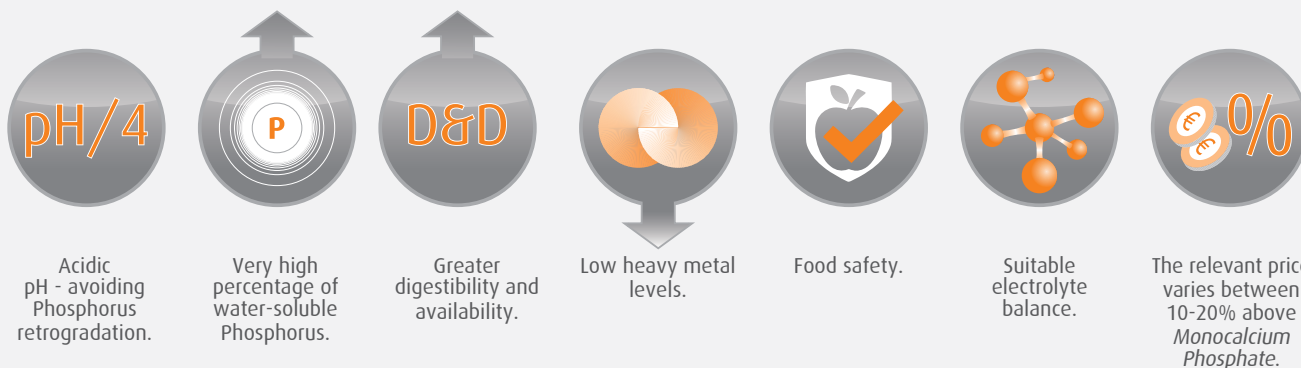
Handling & storage

Store in dry places where the temperature is not very high. Do not leave near to open heat sources. Best used within: 3 years from bagging, under normal storage conditions.



Commitment

GlobalPhos® Technology is respectful to the environment, ensuring waste and pollutants are not emitted.



Technical Specifications

Product properties

Chemical composition

	Value
P total	20,0%
Ca	18,0%
Na	5,0%
Citrate-soluble	>95%
Water-soluble	>45%
Moistness	<2,5% (%p/p)

Species

	Pig	Poultry
Digestibility	84%	79%
Digestible	17	16
Electrolytic balance	2.180 mEq/kg	

Metal content

	Maximum value
As	<10 ppm (12% moisture)
Cd	<10 ppm (12% moisture)
Pb	<15 ppm (12% moisture)
Hg	< 0,1 ppm
F	<2000 ppm

Physical properties

Density	0,8-1,1 gr/ml
Granulometry	Min. Grading 90% between 0.4-1.8 mm
Appearance	White solid
pH (10%)	3-4
Solubility	Water-soluble

Dioxins

Dioxins	<0.75 ng EQT PCDD/F OMS/Kg (12% moistness)
Dioxins most proximate to PCB	<1 ng EQT PCDD/F OMS/Kg (12% moistness)
PCB least proximate to dioxins	< 10 µg/kg (12% moistness)

Format/Packaging:

Big Bag, 25 kg plastic bag and bulk.

Storage:

Store in dry places and at temperatures not higher than 25°C. Avoid exposure to moisture, changes in temperature and the direct action of heat sources. Stack in such a way that the first sacks to enter are the first to leave, avoiding stacking of more than 1 pallet / BB for prolonged periods.

Minimum Durability:

36 months from production, under normal storage conditions.

To apply:

As a raw material in the formula of products intended for animal feed. It is not intended at any stage to be consumed directly by the animals.

Restrictions on use:

Those determined for the end use of the product for which it is made.

Environment / Health / Safety / Handling:

See safety sheet.

SocalPhos is of interest in different proportions in pig and poultry farming in general, with the advantage of not needing to add sodium bicarbonate, reducing the usage of a low inclusion raw material while maintaining the desired electrolytic balance and chlorine levels. The price of interest for the formula varies some 10-20% over Monocalcium Phosphate.



GlobalFeed



Identification

Chemical name: FERROUS SULPHATE MONOHYDRATE

CE No.: 231-753-5

Registration No.: ESP 21 000009

GMP+: GMP007411



Technology

The manufacturing process consists of transforming the green Copperas in Ferrous Sulfate Monohydrate by means of the heat in rotatory kiln. Drying process without chemical reaction.



Description

MineralFeed Ferrous Sulphate is obtained, starting from raw material provided by Tioxide Europe S.L., producing a stable free-flowing product and uniform production.

Ferrous Sulphate Monohydrate with a richness in Fe^{2+} > 30%. Low content in indigestible forms. Ferrous Sulphate Monohydrate is the most economical way to provide digestible iron in feed for both monogastric animals and ruminants.



Instructions for use

As an additive in the formula of products intended for animal feed. It is not intended at any stage to be consumed directly by the animals. As per European Parliament and Council Directive 2002/32/CE, dated 7 May 2002, on undesirable substances in animal feed, Regulation (CE) 574/2011 on maximum content of undesirable substances and Commission Regulation (CE) No. 1831/2003 on additives for use in animal nutrition.

FERROUS SULPHATE MONOHYDRATE

RAW MATERIAL FOR ANIMAL NUTRITION





Food quality and safety

From an environmental perspective, the Ferrous Sulphate Monohydrate production process is fully environmentally friendly and generates no chemical waste. MineralFeed is registered in the General Registry of Establishments in the Animal Feed Sector (α ESP 21 000009), per Regulation (EC) 1831/2003 on the commercialisation of additives, chapter 1, annex IV. It also has the GMP+ certificate of good manufacturing practices (GMP007411), which guarantees the integrity of the production process and its compliance with safety regulations in all the links in the food chain - thus increasing client confidence.



Handling & storage

Store in dry places where the temperature is not very high. Do not leave near to open heat sources. Best used within: 2 years from bagging, under normal storage conditions.



Conclusions

The manufacturing process is ecological and efficient, granting the phosphates obtained distinctive features:

Technical Specifications

Product properties

Chemical composition	
	Value
Total Fe value	>31.0% (typical value)
Fe ²⁺ value	>30% (typical value: 30.5%)
Free H ₂ SO ₄	< 2% (w/w %)
Moisture	< 2.5% (w/w %)
Metal content	
	Valeur maximum
As	Max value <30 ppm (12% moisture) - Typical value: 0.3 ppm
Cd	Max value <10 ppm (12% moisture) - Typical value: 0.2 ppm
Pb	Max value <100 ppm (12% moisture) - Typical value: 2.0 ppm
Propriétés physiques	
Density	0.65-1 g/ml
Granulometry	90% > 160 micron (*see other gradings)
Appearance	Mini-granular grey-green solid
pH (10%)	approx. 2.5
Dioxins	
Dioxins	<1 ng EQT PCDD/F OMS/Kg (12% moisture)
Dioxins similar to PCB	<1.5 ng EQT PCDD/F OMS/Kg (12% moisture)
PCB dissimilar to dioxins	< 10 µg/kg (12% moisture)

Format/Packaging:

1100 kg Big Bag and 25 kg plastic sack

Storage:

Store in dry places and at temperatures not higher than 25°C. Avoid exposure to moisture, changes in temperature and the direct action of heat sources. Stack in such a way that the first sacks to enter are the first to leave, avoiding stacking of more than 1 pallet / BB for prolonged periods.

Minimum Durability:

24 months from production, under normal storage conditions.

To apply:

As a trace mineral in the formula of products intended for animal feed. Trace mineral nutritional additive E1-category 3b (Reg. 1831/2003, annex 1)

Restrictions on use:

Those determined for the end use of the product for which it is made.

Environment / Health / Safety / Handling:

See safety sheet.



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