





ABOUT US

Food Security Solutions DMCC ("FSS DMCC") is one of the world's leading fertiliser traders, whose main mission is to promote global food security. For many years, we have been strictly fulfilling this mission by supplying fertilisers to countries around the world. We operate globally through a wide network of distribution centers around the world.

FSS DMCC offers a wide range of fertilisers for various crops, including cereals, vegetables, fruits and berries. Our products are available in various forms: granular fertilisers for open fields, water soluble fertilisers for greenhouses and fertigation, and others.

We also offer innovative products and integrated solutions based on advanced technologies and in collaboration with research centers.



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NPK/NPKS Granular complex fertilisers

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LEGEND



Suitable for greenhouse applications



Suitable for foliar application



Products do not contain sodium, chlorine or heavy metals



Can be used in fertiliser blends



Suitable for first half of the growing season



Suitable for basal application



Low carbon footprint



Embedding into the soil is required



Can be used in irrigation systems



Suitable for UAVs application



Suitable for soil application



Improved physical and chemical properties to ensure even distribution of fertilisers across the entire spreading width



Conformance to GOST R 58658-2019 – Fertiliser with Improved Characteristics



N/NS/NP



Nitrogen fertilisers

Packaging and storage:



bags

big bags

in bulk



Upon request, ammonium nitrate can be treated with an anti-caking agent (not suitable for greenhouse application).

Store in a dry insulated place, away from moisture and direct sunlight.

Ammonium nitrate (AN)

N 34.4

Versatile highly concentrated nitrogen fertiliser containing ammonium and nitrate forms of nitrogen in equal amounts for extended plant nutrition.

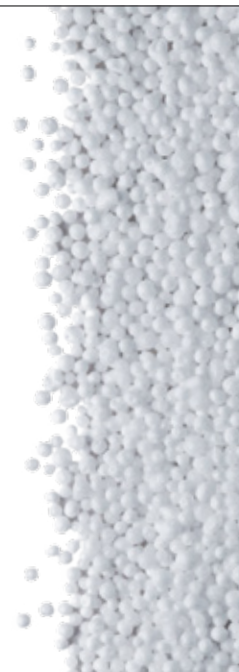
Suitable for direct application to the soil and in fertiliser blends. Excellent physical and chemical characteristics to facilitate storage and application.

Fully water-soluble.

Most effective in the early stages of plant development. Recommended to apply before flowering



Appearance	white or slightly coloured granules
Mass fraction of total nitrogen (N), % including mass fraction of:	34.4
- ammonium nitrogen	17.2
- nitrate nitrogen	17.2
Particle size distribution, %	
Mass fraction of granules:	
- sized under 1 mm, max	3
- sized 1-4 mm, min	95
- sized over 6 mm	0
Friability, %	100





Packaging and storage:



Store in a dry insulated place, away from moisture and direct sunlight.

Stabilised ammonium nitrate (SAN)

NP 33:3

Versatile highly concentrated nitrogen fertiliser containing a small amount of the mobile phosphorus to support the initial stages of plant growth and development.

Contains ammonium and nitrate forms of nitrogen in equal amounts for extended plant nutrition. Contains phosphates in a water-soluble and readily available form.


Excellent physical and chemical characteristics to facilitate storage and application.


Suitable for all soils and crops. Most effective at the first, earliest top-dressing of winter crops.

Appearance	white granules
Mass fraction of total nitrogen (N), % including mass fraction of:	33
- ammonium nitrogen	16.5
- nitrate nitrogen	16.5
- digestible phosphates in terms of P ₂ O ₅ , %, min	3
Particle size distribution, %	
Mass fraction of granules:	
- sized under 1 mm, max	3
- sized 1-4 mm, min	95
- sized over 6 mm	0
Friability, %	100

Packaging and storage:

SULPHONITRATE

 big bags

 in bulk

Store in a dry insulated place, away from moisture and direct sunlight.

Sulphonitrate

NS 30:7

Nitrogen fertiliser with optimally balanced N:S ratio. Effective for most crops on all soil types.

Contains sulphur in a water-soluble sulphate form to improve the quality of agricultural products (increases oil content in oilseeds and protein content in cereals) and promote nitrogen absorption.

The 18% to 12% ratio of ammonium and nitrate forms of nitrogen reduces leaching losses and extends nutrition effect*. The granular form allows even distribution of the fertiliser across soil surface during application.

Improves absorption of phosphorus by the plant and supports extraction of phosphates accumulated in the soil. Improved physical and chemical characteristics (no caking and no dusting).

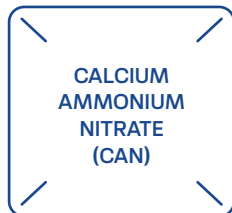


Appearance	white or yellowish-gray granules
Mass fraction of total nitrogen (N), %	30
including mass fraction of:	
– ammonium nitrogen	18
– nitrate nitrogen	12
– sulphate sulphur in terms of S, min, %	7
Particle size distribution, %	
Mass fraction of granules with size, mm	
– sized under 1 mm, max	3
– sized 1-5 mm, min	90
– sized over 6.3 mm	0
Friability, %	100





Packaging and storage:



Store in a dry insulated place, away from moisture and direct sunlight.

Calcium ammonium nitrate (CAN)

27N+12CaO

Physiologically neutral nitrogen fertiliser.

A safety benchmark for nitrogen-rich fertilisers.

Contains equal amounts of ammonium and nitrate forms of nitrogen for extended plant nutrition.

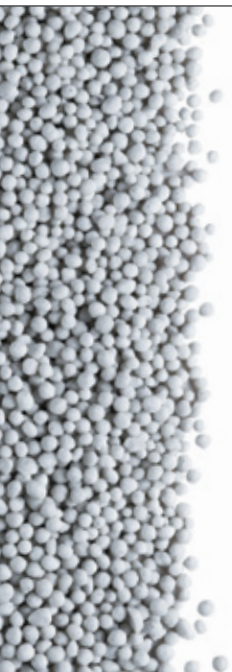
The presence of calcium carbonate prevents soil acidification. Calcium contributes to the development of the root system and increases disease and pest resistance.

Excellent physical and chemical characteristics to facilitate storage and application.

Recommended for all types of soils at pH less than 6.5.

Used for all crops, especially for roots and tubers, fruits and berries.

Appearance	white-grey granules
Mass fraction of total nitrogen (N), % including mass fraction of:	27
– ammonium nitrogen	13.5
– nitrate nitrogen	13.5
– calcium in terms of CaO, %	12
– calcium nitrate, %, max	1
Particle size distribution, %	
Mass fraction of granules with size, mm	
– sized under 1 mm, max	3
– sized 1-5 mm, min	90
– sized over 6.3 mm	0
Friability, %	100



Packaging and storage:

**CALCIUM
AMMONIUM
NITRATE
WITH SULPHUR
(CNS)**

 big bags

 in bulk

Store in a dry insulated place, away from moisture and direct sunlight.

Calcium ammonium nitrate with sulphur (CNS)

NS 27:4+8CaO

Highly effective calcium-containing nitrogen fertiliser with sulphur.

Contains ammonium and nitrate forms of nitrogen for extended plant nutrition. Contains sulphur in a water-soluble sulphate form to improve the quality of agricultural products (increases oil content in oilseeds and protein content in cereals and grain legumes).

Calcium contributes to the development of the root system and increases disease and pest resistance.

Excellent physical and chemical characteristics to facilitate storage and application.

Suitable for all soils and crops (requires embedding into the soil). Most effective as supplementary fertiliser for oilseeds, cereals, fodder crops, and root crops.

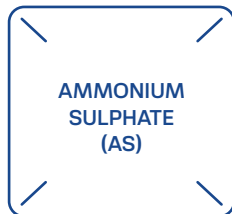



Appearance	white-grey granules
Mass fraction of total nitrogen (N), % including mass fraction of:	27
- ammonium nitrogen	13.5
- nitrate nitrogen	13.5
- sulphate sulphur in terms of S, %, min	4
- calcium in terms of CaO, %, min	8
- calcium nitrate, %, max	1
Particle size distribution, %	
Mass fraction of granules with size, mm	
- sized under 1 mm, max	3
- sized 1-5 mm, min	90
- sized over 6.3 mm	0
Friability, %	100





Packaging and storage:

 bags big bags

The product is a strong acid-forming fertiliser: systematic application acidifies the soil solution and it is therefore recommended to combine it with neutral fertilisers and check soil pH annually.

Store in a dry insulated place, away from moisture and direct sunlight.

Ammonium sulphate (AS)

NS 21:24

Granular nitrogen fertiliser with high sulphur content suitable for all soils and crops.

Contains ammonium nitrogen resistant to leaching and easily digestible sulphur in a water-soluble sulphate form.

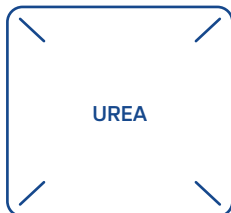
An optimal fertiliser for main application. Also suitable for supplemental root feeding of winter crops, hayfields and pastures, oilseeds, cabbages, and crops with high demand for sulphur.

Reduces the loss of nitrogen from leaching on light-textured soils. Highly efficient on soils with a low content of mobile sulphur.

Basal application will be effective in the no leaching water regime.

Appearance	white granules
Mass fraction of total nitrogen (N), % including mass fraction of:	21
- ammonium nitrogen	21
- sulphate sulphur in terms of S, %, min	24
Particle size distribution, %	
Mass fraction of granules, mm	
- sized under 1 mm, max	3
- sized 1-4 mm, min	80
- sized over 6 mm	0
Friability, %	100

Packaging and storage:



bags

big bags

in bulk



Upon request, urea can be treated with an anti-caking agent

Store in a dry insulated place, away from moisture and direct sunlight.

Urea

N 46.2

The most concentrated nitrogen fertiliser. Extended nitrogen nutrition for the plant.

Requires embedding into the soil immediately after application.

Fully water-soluble. Suitable for irrigation systems and foliar application.



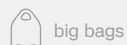
Appearance	white granules
Mass fraction of total nitrogen (N), %	46.2
Mass fraction of biuret, %, max	1.4*
Particle size distribution, %	
Mass fraction of granules:	
– sized under 1 mm, max	5(3)*
– sized 1-4 mm, min	94
– sized over 6 mm	0
Friability, %	100

* varies for different production facilities





Packaging and storage:



Store in a dry insulated place, away from moisture and direct sunlight.

Urea ammonium sulphate (UAS)

NS 40:6, NS 34:12

Universal nitrogen fertiliser with high sulphur availability.

The composition contains a prolonged nitrogen in amid form, as well as an ammonium form of nitrogen and sulphur in a water-soluble sulphate form.

The use of urea ammonium sulphate improves the commodity indicators of product quality, in particular – increasing the content of protein in grains and oil content in oilseeds, as well as increasing the general yield of sulphur demanding crops.

Fertiliser is suitable for main and pre-sowing application, as well as foliar supplementary feeding of agricultural crops. It is recommended to embed fertiliser for decreasing its loss.

Excellent physical and chemical characteristics to facilitate storage and application.

	40:6	34:12
Appearance	white or slightly coloured granules	
Mass fraction of total nitrogen (N), % including mass fraction of:	40	34
– ammonium nitrogen	5	11
– ureic nitrogen	35	23
– sulphate sulphur in terms of S, %, min	6	12
Particle size distribution, %		
Mass fraction of granules:		
– sized under 1 mm, max	10	10
– sized 1-4 mm, min	90	90
– sized over 6 mm	0	0
Friability, %	100	100



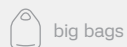
P/NP

Phosphate fertilisers





Packaging and storage:



big bags



in bulk

Store in a dry insulated place, away from moisture and direct sunlight.

NP 22:20

Versatile granular highly concentrated nitrogen-phosphorus fertiliser with sulphur content.

Contains 2% of sulphur in an easily digestible sulphate form.

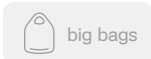
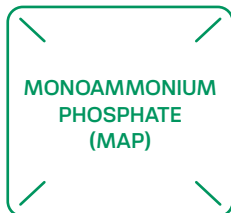
Suitable for basal application on potassium-rich soils with no leaching water regime. Well suited for pre-sowing or at-sowing application on all crops.

Recommended for top-dressing of fruit and berry crops.



Appearance	grey granules
Mass fraction of total nitrogen (N), %, including mass fraction of:	22
– ammonium nitrogen, %	13
– nitrate nitrogen, %	9
– total phosphates in terms of P ₂ O ₅ , %	20
– digestible phosphates in terms P ₂ O ₅ , %	20
– sulphate sulphur in terms of S, %, min	2
Particle size distribution, %	
Mass fraction of granules, mm	
– sized under 1 mm, max	3
– sized 1-4 mm, min	90
– sized over 6 mm	0
Friability, %	100

Packaging and storage:



Store in a dry insulated place, away from moisture and direct sunlight.

Monoammonium phosphate (MAP)

NP 12:52

Versatile granular highly concentrated nitrate-free nitrogen-phosphorus fertiliser.

Contains phosphates in readily available form.

Suitable for direct application to the soil and in fertiliser blends on all soils and crops. Especially for cereals, root crops, rapeseed, sugarcane, and as top-dressing for fruit and berry crops.

Recommended for at-planting application. Also effective as basic fertiliser on soils with low levels of available phosphorus.

Especially effective on cereals, root crops, rapeseed, sugarcane, and as a top-dressing for fruit and berry crops.

Excellent physical and chemical characteristics to facilitate storage and application.



FOOD SECURITY SOLUTIONS

FOOD SECURITY SOLUTIONS

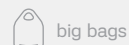
	12:52
Appearance	grey granules
Mass fraction of total nitrogen (N), %, including mass fraction of:	12
- ammonium nitrogen, %	12
- total phosphates in terms of P ₂ O ₅ , %	52
- digestible phosphates in terms P ₂ O ₅ , %	50
Particle size distribution, %	
Mass fraction of granules, mm	
- sized under 1 mm, max	3
- sized 1-6 mm, min	-
- sized 2-5 mm, min	90
- sized over 6 mm	0
Friability, %	100





Packaging and storage:

NP(S) 14:34(8)
NP(S) 16:20(12)
NP(S) 20:20(14)



big bags



in bulk

Store in a dry insulated place, away from moisture
and direct sunlight.

NP(S) 14:34(8), 16:20(12), 20:20(14)

Versatile granular highly concentrated nitrate-free nitrogen-phosphorus fertiliser with high sulphur content.

Contains phosphates in readily available form and nitrogen in ammonium form for a long-term effect. The sulphur content in the fertiliser promotes active growth of plants, increases their immunity and viability, and increases the overall product quality through increased protein content. Additionally, sulphur content improves absorption of nitrogen through synergy effects of both elements.

Suitable for direct application to the soil and in fertiliser blends on all types of soils and crops, especially for cereals, root crops, rapeseed, sugarcane, and as a top-dressing for fruit and berry crops. Also recommended for at-planting application. Effective basic fertiliser on soils with low levels of available phosphorus and high fraction of available potassium.

While NP(S) 14:34(8) is recommended for application as main fertiliser on soils with low intensity water flow in autumn, NP(S) 20:20(14) and 16:20(12) is recommended to be applied on all kinds of soils in spring.

Excellent physical and chemical characteristics facilitate storage and application.



	14:34(8)	16:20(12)	20:20(14)
Appearance	granules from white to grey in color with various shades		
Mass fraction of total nitrogen (N), %, including mass fraction of:	14	16	20
- ammonium nitrogen, %	14	16	20
- total phosphates in terms of P ₂ O ₅ , %	34	20	20
- digestible phosphates in terms P ₂ O ₅ , %	33	20	20
- sulphate sulphur in terms of S, % min	8	12	14
Particle size distribution, %			
Mass fraction of granules, mm			
- sized under 1 mm, max	3	3	3
- sized 1-5 mm, min	90	90	90
- sized over 6 mm	0	0	0
Friability, %	100	100	100



K

Potash fertilisers



**Packaging and storage:** bags big bags in bulk

Store in a dry insulated place, away from moisture and direct sunlight.

Pink Granular MOP 60% K₂O

The most concentrated straight potassium fertiliser in granular form.

Ideal source of potassium for all chloride-tolerant crops and soil types.

Suitable for both straight application and bulk blending.

Excellent granulometric characteristics and granule strength.




Appearance	granules of irregular shape from pink to red-brown color
Mass fraction of:	
- potassium chloride, %, min	95
- water-soluble potassium oxide (on K ₂ O basis), %, min	60
- sodium chloride, %	3.1
- magnesium (Mg), %	0.01
- calcium (Ca), %	0.16
- moisture content, %, max	0.5
Granulometric composition, %:	
- sized over 4 mm, max	10
- sized under 2 mm, max	10
- sized under 1 mm, max	2


Packaging and storage:



**PINK FINE MOP
60% K₂O**

 bags

 big bags

 in bulk

Store in a dry insulated place, away from moisture and direct sunlight.

Pink Fine MOP 60% K₂O

Straight potassium fertiliser for direct application and fertilisers manufacture.

Suitable for all chloride-tolerant crops and soil types.

Suitable for straight application.

Used for production of complex fertilisers.



Appearance	crystals from pink to red-brown color
Mass fraction of:	
– potassium chloride, %, min	95
– water-soluble potassium oxide (on K ₂ O basis), %, min	60
– sodium chloride, %	3
– magnesium (Mg), %	0.01
– calcium (Ca), %	0.16
– moisture content, %, max	0.5
Granulometric composition, %	
– sized under 2 mm, max	90





Packaging and storage:

**WHITE
STANDARD MOP
60%/62% K₂O**



bags



big bags



in bulk

Store in a dry insulated place, away from moisture and direct sunlight.

White Standard MOP

60%/62% K₂O

High-purity water-soluble potassium fertiliser for fertilisers manufacture.

Used for production of complex and potassium fertilisers (potassium nitrate, potassium sulphate).

Suitable for production of liquid fertilisers.


	60% K ₂ O	62% K ₂ O
Appearance	crystals of greyish-white color	
Mass fraction of:		
- potassium chloride, %, min	95	98.2
- water-soluble potassium oxide (on K ₂ O basis), %, min	60	62
- sodium chloride, %	2.3	1.5
- magnesium (Mg), %	0.01	0.01
- calcium (Ca), %	0.01	0.01
- sulphate (SO ₄ ²⁻), %	0.01	0.01
- moisture content, %, max	0.5	0.5
- insolubles, %	0.01	0.01
Granulometric composition, %		
- sized under 0.4 mm, max	31	31
- sized under 2 mm	100	100

Packaging and storage:

**WHITE FINE MOP
60%/62% K₂O**

 bags

 big bags

 in bulk

Store in a dry insulated place, away from moisture and direct sunlight.

White Fine MOP 60%/62% K₂O

High-purity water-soluble potassium fertiliser for fertilisers manufacture.

Used for production of complex and potassium fertilisers (potassium nitrate, potassium sulphate). Suitable for production of liquid fertilisers.



	60% K ₂ O	62% K ₂ O
Appearance	crystals of greyish-white color	
- potassium chloride, min, %	95	98.2
- water-soluble potassium oxide (on K ₂ O basis), min, %	60	62
- sodium chloride, %	2.4	1.2
- magnesium (Mg), %	0.01	0.01
- calcium (Ca), %	0.02	0.01
- sulphate (SO ₄ ²⁻), %	0.02	0.01
- moisture content, max, %	0.5	0.5
- insolubles, %	0.03	0.03
Granulometric composition, %		
- sized under 0.4 mm, max	95.7	95.7
- sized under 2 mm	100	100



NPK/NPKS

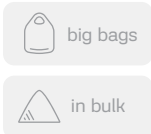


Granular
complex fertilisers

MINERAL FERTILISERS

Balanced formulations

Packaging and storage:



Granules can be colored in pink and blue.



Various trace elements can be added to all NPK grades.

Store in a dry insulated place, away from moisture and direct sunlight.

NPK/NPKS

Granular complex

NPK 15:15:15, NPKS 15:15:15:11, NPK 16:16:16

Granular complex fertilisers with balanced composition of key nutrients.

The 11% sulphur content in NPKS 15:15:15:11 supports the quality of agricultural products (increases the protein content in cereals and oil content in oilseeds).

Suitable for all types of soil. Optimal for pre-sowing or at-sowing application for all types of crops.

With their consistent nutrient composition in each granule these complex NPK fertilisers ensure uniform distribution of all nutrients across the field.



FOOD SECURITY SOLUTIONS

	15:15:15	15:15:15:11	16:16:16
Appearance	white to various shades of grey or pink granules		
Mass fraction of total nitrogen (N), %	15	15	16
Including mass fraction of:			
- ammonium nitrogen, %	8	15	8
- nitrate nitrogen, %	7	-	8
- total phosphates in terms of P ₂ O ₅ , %	15	15	16
- digestible phosphates in terms of P ₂ O ₅ , %, min	15	15	16
- potassium in terms of K ₂ O, %	15	15	16
- sulphate sulphur in terms of S, %, min	-	11	-
Particle size distribution, %			
Mass fraction of granules, mm			
- sized under 1 mm, max	3	3	3
- sized 1-5 mm, min	90	90	90
- sized over 6.3 mm	0	0	0
Friability, %	100	100	100



MINERAL FERTILISERS
High-nitrogen formulations

NPK/NPKS

Granular complex

**NPKS 21:10:10:2, NPKS 21:17:3:3
NPKS 22:7:12:2**

Granular complex NPKS fertilisers with high nitrogen content.


Fully provides mineral nutrition for the plants due to the balanced composition of essential elements. The presence of ammonium and nitrate forms of nitrogen provides a prolonged effect of the fertiliser. The presence of phosphorus, potassium and sulphur allows for more efficient absorption of nitrogen, reducing its loss from leaching.

Suitable for all types of soils and all crops, optimally as basic fertiliser on soils with a high content of mobile phosphorus and potassium. Effective for top-dressing of perennial grasses, hayfields and pastures. Suitable for inter-row top-dressing on perennial plantations and fruits.

With their consistent nutrient composition in each granule these complex NPKS fertilisers ensure uniform distribution of all nutrients across the field.

Packaging and storage:

**NPKS 21:10:10:2
NPKS 21:17:3:3
NPKS 22:7:12:2**

 big bags

 in bulk


Store in a dry insulated place, away from moisture and direct sunlight.

	21:10:10:2	21:17:3:3	22:7:12:2
Appearance	pink, light pink or light brown granules		
Mass fraction of total nitrogen (N), % including mass fraction of:	21	21	22
- ammonium nitrogen	11	13	12
- nitrate nitrogen	10	8	10
- total phosphates in terms of P ₂ O ₅ , %	10	17	7
- digestible phosphates in terms of P ₂ O ₅ , %, min	10	10	7
- potassium in terms of K ₂ O, %	10	3	12
- sulphate sulphur in terms of S, %, min	2	3	2
Particle size distribution, %			
Mass fraction of granules, mm			
- sized under 1 mm, max	3	3	3
- sized 1-5 mm, min	90	90	90
- sized over 6.3 mm	0	0	0
Friability, %	100	100	100



Packaging and storage:

NPKS 24:6:12:1
NPKS 27:6:6:2

 big bags

 in bulk

Store in a dry insulated place, away from moisture and direct sunlight.

NPKS 24:6:12:1, NPKS 27:6:6:2

Granular complex NPKS fertilisers with high nitrogen content.

Fully provides mineral nutrition for the plants due to the balanced composition of essential elements. The presence of ammonium and nitrate forms of nitrogen provides a prolonged effect of the fertiliser. The presence of phosphorus, potassium and sulphur allows for more efficient absorption of nitrogen, reducing its loss from leaching.

Suitable for all types of soils and all crops, optimally as basic fertiliser on soils with a high content of mobile phosphorus and potassium. Effective for top-dressing of perennial grasses, hayfields and pastures. Suitable for inter-row top-dressing on perennial plantations and fruits.

With their consistent nutrient composition in each granule these complex NPKS fertilisers ensure uniform distribution of all nutrients across the field.



	24:6:12:1	27:6:6:2
Appearance	pink, light pink or light brown granules	
Mass fraction of total nitrogen (N), % including mass fraction of:	24	27
- ammonium nitrogen	12	15
- nitrate nitrogen	12	12
- total phosphates in terms of P ₂ O ₅ , %	6	6
- digestible phosphates in terms of P ₂ O ₅ , %, min	6	6
- potassium in terms of K ₂ O, %	12	6
- sulphate sulphur in terms of S, %, min	1	2
Particle size distribution, %		
Mass fraction of granules, mm		
- sized under 1 mm, max	3	3
- sized 2-5 mm, min	90	90
- sized over 6.3 mm	0	0
Friability, %	100	100



MINERAL FERTILISERS
Low-nitrogen formulations

NPK/NPKS

Granular complex

NPKS 10:20:20:6, NPKS 10:26:26:2

Versatile granular complex NPKS fertilisers with high phosphorus and potassium contents.

Ammonium nitrogen gives a sustained delivery of nitrogen as it becomes slowly available to the plant after conversion to nitrate form.

Suitable for all crops and soils. Especially effective for grain, vegetable, fodder, fruit and berry crops as main and at-planting fertilisers.

Excellent physical and chemical characteristics to facilitate storage and application.

With their consistent nutrient composition in each granule these complex NPKS fertilisers ensure uniform distribution of all nutrients across the field.

Packaging and storage:



- big bags
- in bulk

Store in a dry insulated place, away from moisture and direct sunlight.

	10:20:20:6	10:26:26:2
Appearance	white to various shades of grey or pink granules	
Mass fraction of total nitrogen (N), % including mass fraction of:	10	10
- ammonium nitrogen	10	10
- total phosphates in terms of P ₂ O ₅ , %	20	26
- digestible phosphates in terms of P ₂ O ₅ , %, min	19.5	25.5
- potassium in terms of K ₂ O, %	20	26
- sulphate sulphur in terms of S, %, min	6	2
Particle size distribution, %		
Mass fraction of granules, mm		
- sized under 1 mm, max	3	3
- sized 1-5 mm, min	90	90
- sized over 6 mm	0	0
Friability, %	10	10



Packaging and storage:

NPKS 10:20:10:5
NPKS 12:24:12:6
NPKS 14:23:14:6

 big bags

 in bulk

Store in a dry insulated place, away from moisture and direct sunlight.

**NPKS 10:20:10:5, NPKS 12:24:12:6,
NPKS 14:23:14:6**

Granular complex NPKS fertilisers with high phosphorus content.

Suitable for all crops and soils. Used as main fertiliser for winter crops, as well as pre-planting and at-planting fertiliser for spring crops. Ideal for cereals and vegetables.

Also recommended for phosphorus-deficient soils.

With their consistent nutrient composition in each granule these complex NPKS fertilisers ensure uniform distribution of all nutrients across the field.



	10:20:10:5	12:24:12:6	14:23:14:6
Appearance	white to various shades of grey or pink granules		
Mass fraction of total nitrogen (N), % including mass fraction of:	10	12	14
- ammonium nitrogen	10	12	12
- amide nitrogen	-	-	2
- total phosphates in terms of P ₂ O ₅ , %	20	24	23
- digestible phosphates in terms of P ₂ O ₅ , %, min	20	24	23
- potassium in terms of K ₂ O, %	10	12	14
- sulphate sulphur in terms of S, %, min	5	6	6
Particle size distribution, %			
Mass fraction of granules, mm			
- sized under 1 mm, max	3	3	3
- sized 1-4 mm, min	90	90	95
- sized over 6.3 mm	0	0	0
Friability, %	10	10	10



MINERAL FERTILISERS
Low-phosphorus formulations (V-grades)

NPK/NPKS

Granular complex

**NPK 18:4:18, NPK 19:4:19,
NPK 19:9:19, NPK 20:4:20**

Granular complex NPK fertiliser with high nitrogen, potassium and additional magnesium content.

Granular complex NPK has a balanced nitrogen source, containing both forms of nitrogen (nitrate and ammonium). The nitrate form of nitrogen is a prerequisite to feed fast growing crops and ensure good root development, while the ammonium form is important to keep a sustained delivery of nitrogen.

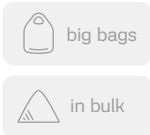
Magnesium improves absorption of phosphorus, supports activation of enzymes and accelerates formation of carbohydrates.

Optimal for soils with a high phosphorus content.

Recommended for perennial crops, fruit, coffee, cocoa, sugarcane, vegetables. Suitable for top-dressing during inter-row tillage.

With their consistent nutrient composition in each granule these complex NPK fertiliser ensure uniform distribution of all nutrients across the field.

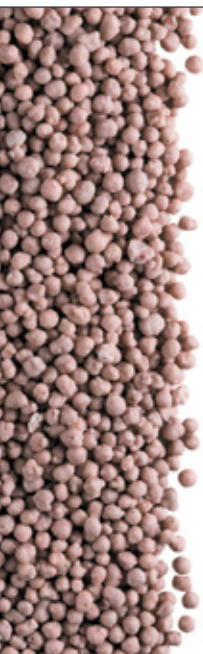
Packaging and storage:



Various trace elements can be added to all NPK grades.

Store in a dry insulated place, away from moisture and direct sunlight.

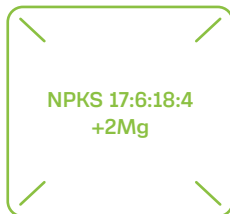
	NPK 18:4:18	19:4:19	19:9:19	20:4:20
Appearance	pink, light-pink or light-brown granules			
Mass fraction of total nitrogen (N), %	18	19	19	20
including mass fraction of:				
- ammonium nitrogen	9	10	10	10
- nitrate nitrogen	9	9	9	10
- total phosphates in terms of P ₂ O ₅ , %	4	4	9	4
- digestible phosphates in terms of P ₂ O ₅ , %, min	4	4	9	4
- potassium in terms of K ₂ O, %	18	19	19	20
- sulphate sulphur in terms of S, %, min	-	-	-	-
- magnesium in term of Mg, %, min	-	-	-	-
Particle size distribution, %				
Mass fraction of granules, mm				
- sized under 1 mm, max	3	3	3	3
- sized 1-5 mm, min	90	90	90	90
- sized over 6.3 mm	0	0	0	0
Friability, %	100	100	100	100



MINERAL FERTILISERS

Low-phosphorus formulations (V-grades)

Packaging and storage:



Various trace elements can be added to all NPK grades.

Store in a dry insulated place, away from moisture and direct sunlight.

NPK/NPKS

Granular complex

NPKS 17:6:18:4+2Mg

Granular complex NPK fertilisers with high nitrogen and potassium content.

Granular complex NPK has a balanced nitrogen source, containing both forms of nitrogen (nitrate and ammonium). The nitrate form of nitrogen is a prerequisite to feed fast growing crops and ensure good root development, while the ammonium form is important to keep a sustained delivery of nitrogen.

Optimal for soils with a high phosphorus content.

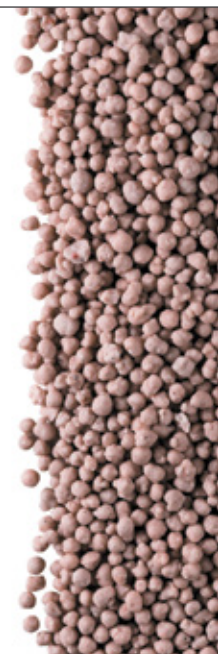
Recommended for perennial crops, fruit, coffee, cocoa, sugarcane, vegetables. Suitable for top-dressing during inter-row tillage.

With their consistent nutrient composition in each granule these complex NPK fertilisers ensure uniform distribution of all nutrients across the field.



FOOD SECURITY
SOLUTIONS

	17:6:18:4+2Mg
Appearance	pink, light-pink or light-brown granules
Mass fraction of total nitrogen (N), %	17
including mass fraction of:	
– ammonium nitrogen	10
– nitrate nitrogen	7
– total phosphates in terms of P ₂ O ₅ , %	6
– digestible phosphates in terms of P ₂ O ₅ , %, min	6
– potassium in terms of K ₂ O, %	18
– sulphate sulphur in terms of S, %, min	4
– magnesium in term of Mg, %, min	2
Particle size distribution, %	
Mass fraction of granules, mm	
– sized under 1 mm, max	3
– sized 1-5 mm, min	90
– sized over 6.3 mm	0
Friability, %	100



MINERAL FERTILISERS
High-potassium formulations

NPK/NPKS

Granular complex

**NPKS 6:18:34:2, NPKS 8:15:30:4,
NPKS 8:20:30:3**

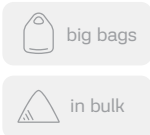
Granular complex NPKS fertilisers with high potassium content.

Suitable for all crops and soils. Ammonium nitrogen gives a sustained delivery of nitrogen as it becomes slowly available to the plant after conversion to nitrate form.

Effective as main fertiliser or for pre-planting and at-planting application. Recommended for potassium-loving crops.

With their consistent nutrient composition in each granule these complex NPKS fertilisers ensure uniform distribution of all nutrients across the field.

Packaging and storage:



Store in a dry insulated place, away from moisture and direct sunlight.

	6:18:34:2	8:15:30:4	8:20:30:3
Appearance	light grey, grey, pink and grey-pink granules		
Mass fraction of total nitrogen (N), % including mass fraction of:	6	8	8
- ammonium nitrogen	6	8	8
- total phosphates in terms of P ₂ O ₅ , %	18	15	20
- digestible phosphates in terms of P ₂ O ₅ , %, min	18	15	19.5
- potassium in terms of K ₂ O, %	34	30	30
- sulphate sulphur in terms of S, %, min	2	4	3
Particle size distribution, %			
Mass fraction of granules, mm			
- sized under 1 mm, max	3	3	3
- sized 1-4 mm, min	95	95	95
- sized over 6 mm	0	0	0
Friability, %	100	100	100



Packaging and storage:



Various trace elements can be added to all NPK grades.

Store in a dry insulated place, away from moisture and direct sunlight.

**NPKS 12:5:27:8, NPKS 13:13:21:7,
NPKS 13:13:24:4**

Granular complex NPKS fertilisers with high potassium content.

Suitable for all crops and soils (especially phosphorus-rich soils). Ammonium nitrogen gives a sustained delivery of nitrogen as it becomes slowly available to the plant after conversion to nitrate form. Low content of nitrate form of nitrogen is a prerequisite to feed fast growing crops and ensure good root development at the time of application.

Effective as main fertiliser, for pre-planting and at-planting application. Recommended for potassium-loving crops.

With their consistent nutrient composition in each granule these complex NPKS fertilisers ensure uniform distribution of all nutrients across the field.



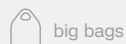
	12:5:27:8	13:13:21:7	13:13:24:4
Appearance	light grey, grey, pink and grey-pink granules		
Mass fraction of total nitrogen (N), % including mass fraction of:	12	13	13
- ammonium nitrogen	10	11	10
- nitrate nitrogen	2	2	3
- total phosphates in terms of P ₂ O ₅ , %	5	13	13
- digestible phosphates in terms of P ₂ O ₅ , %, min	4	11	11
- potassium in terms of K ₂ O, %	27	21	24
- sulphate sulphur in terms of S, %, min	8	7	4
Particle size distribution, %			
Mass fraction of granules, mm			
- sized under 1 mm, max	3	3	3
- sized 1-5 mm, min	90	90	90
- sized over 6 mm	0	0	0
Friability, %	10	10	10





Packaging and storage:

**NPKS 8:20:30:3
+0.015Zn,
NPKS 14:18:18:6
+0.3B**



big bags



in bulk

Store in a dry insulated place, away from moisture and direct sunlight.

**NPKS 8:20:30:3+0.015Zn,
NPKS 14:18:18:6+0.3B**

Granular complex NPKS fertilisers with micronutrients.

Ensure comprehensive nutrition because of balanced composition and the presence of micronutrients in one granule. Suitable for all crops and all soils.

Boron is necessary for normal cell division and growth; it supports transportability and storability of agricultural products.

Zinc supports growth of the root system and the absorption of nutrients from the soil; it increases the protein and carbohydrate content in agricultural products.

Effective as basic and at-sowing fertiliser for all crops.

Recommended for use on maize, cereals, rapeseed, root and tubers crops.


With their consistent nutrient composition in each granule these complex NPKS fertilisers ensure uniform distribution of all nutrients across the field.




	8:20:30:3+0.015Zn	14:18:18:6+0.3B
Appearance	pink and greyish-pink granules	
Mass fraction of total nitrogen (N), % including mass fraction of:	8	14
- ammonium nitrogen	8	12
- amide nitrogen	-	2
- total phosphates in terms of P ₂ O ₅ , %	20	18
- digestible phosphates in terms of P ₂ O ₅ , %, min	20	18
- potassium in terms of K ₂ O, %	30	18
- sulphate sulphur in terms of S, %, min	3	6
- zinc in terms of Zn, %	0.015	-
- boron in terms of B, %	-	0.3
Particle size distribution, %		
Mass fraction of granules, mm		
- sized under 1 mm, max	3	3
- sized 1-4 mm, min	95	95
- sized over 6 mm	0	0
Friability, %	100	100

Packaging and storage:

**NPKS 15:15:15:6+1B,
NPKS 5:20:15:6
+0.3B+0.3ZN**

 big bags

 in bulk

Store in a dry insulated place, away from moisture and direct sunlight.

NPKS 15:15:15:6+1B
NPKS 15:20:15:6+0.3B+0.3Zn

Granular complex NPKS fertilisers with micronutrients.

Ensure comprehensive nutrition because of balanced composition and the presence of micronutrients in one granule. Suitable for all crops and all soils.

Boron is necessary for normal cell division and growth; it supports transportability and storability of agricultural products.

Zinc supports growth of the root system and the absorption of nutrients from the soil; it increases the protein and carbohydrate content in agricultural products.

Effective as basic and at-sowing fertiliser for all crops.

Recommended for use on maize, cereals, rapeseed, root and tubers crops.

With their consistent nutrient composition in each granule these complex NPKS fertilisers ensure uniform distribution of all nutrients across the field.



	15:15:15:6+1B	15:20:15:6+0.3B+0.3Zn
Appearance	pink and greyish-pink granules	
Mass fraction of total nitrogen (N), % including mass fraction of:	15	15
- ammonium nitrogen	11	12
- amide nitrogen	4	3
- total phosphates in terms of P ₂ O ₅ , %	15	20
- digestible phosphates in terms of P ₂ O ₅ , %, min	15	20
- potassium in terms of K ₂ O, %	15	15
- sulphate sulphur in terms of S, %, min	6	6
- of zinc, %	-	0.3
- of boron, %	1	0.3
Particle size distribution, %		
Mass fraction of granules, mm		
- sized under 1 mm, max	3	3
- sized 1-4 mm, min	95	95
- sized over 6 mm	0	0
Friability, %	100	100



MINERAL FERTILISERS

Biomodified formulations

NPK/NPKS

Granular complex

MultiStart NPKS 8:20:30:3+BIO, MultiStart NPKS 15:15:15:11+BIO

Granular complex biomodified fertiliser containing the main nutrients (nitrogen, phosphorus, potassium and sulphur), as well as *Bacillus rhizospheric bacteria*.

Once in the soil, the bacteria produce auxins, which stimulate development of the root system, increase its absorption capacity and produce organic acids, which increase the content of water-soluble forms of phosphorus in the soil.


The microorganisms in the fertiliser inhibit the activity of pathogens in the rhizosphere and increase the plant's bacterial and fungal resistance.

MultiStart NPKS increases biological activity of the soil, improves yields of crops and quality of agricultural products and supports business profitability.

Used for pre-sowing or at-sowing application for all types of crops.

Packaging and storage:



 big bags



Possibility of production different biomodified NPKS grades of complex fertilisers.

Store in a dry insulated place, away from moisture and direct sunlight, at a temperature from $-40\text{ }^{\circ}\text{C}$ to $+40\text{ }^{\circ}\text{C}$.

Guaranteed storage life – 1 year.
Shelf life – 2 years.

	MultiStart 8:20:30:3+BIO	MultiStart 15:15:15:11+BIO
Appearance	white to various shades of grey or pink granules	
Mass fraction of total nitrogen (N), % including mass fraction of:	8	15
– ammonium nitrogen	8	15
– total phosphates in terms of P_2O_5 , %	20	15
– digestible phosphates in terms of P_2O_5 , %, min	19.5	15
– potassium in terms of K_2O , %	30	15
– sulphate sulphur in terms of S, %, min	3	11
Viable bacterial cells per 1 gram of fertiliser, CFU/g, min	5×10^4	5×10^4
Particle size distribution, % Mass fraction of granules, mm		
– sized under 1 mm, max	3	3
– sized 1-5 mm, min	90	90
– sized over 6 mm	0	0
Friability, %	100	100





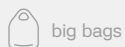
RM

Raw materials
for WS NPK production





Packaging and storage:



Store in a dry insulated place, away from moisture and direct sunlight.

Urea microprilled

Microprilled urea can be used to produce water-soluble NPK blends.

Fine microprills lead to high uniformity of blends.

NPK blends containing microprills do not cake, segregate and do not produce dust.

Appearance	white or slightly colored granules
- nitrogen content on dry basis, %, min	46.2
- biuret content, %, max	1.4
- free ammonia content, %, max	0.02
- hygroscopic water content, %, max	0.3

Granulometric composition, content of granules sized, %:

- 1 to 1,5 mm, max	10
- 0.7 to 1 mm, min	60
- less than 0.3 mm, max	5



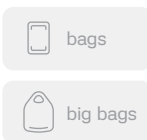
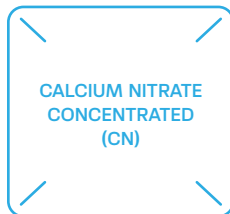
WS

Water-soluble fertilisers





Packaging and storage:



Do not mix calcium nitrate with fertilisers containing phosphates and sulphates.

Store in a dry insulated place, away from moisture and direct sunlight.

Calcium nitrate concentrated (CN)

17N+33CaO

The only water-soluble source of calcium with the maximum content of the active substance (calcium nitrate content – 98%*).

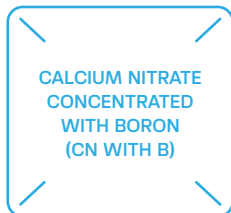
The product has a low content of ammonium nitrogen and is in anhydrous form. Calcium nitrate increases plant's resistance to environmental factors, improves quality of fruits and increases their shelf life. The presence of accessible calcium is necessary throughout the growing season, since calcium is not redistributed within the plant.

Used in greenhouse vegetable growing, in drip irrigation systems. An excellent solution for top-dressing fruit and berry crops, roots and tubers crops.

* vs 78% content in similar products

Appearance	white or grey-yellow granules
Mass fraction of total nitrogen (N), % including mass fraction of:	17
– nitrate nitrogen	16.7
– ammonium nitrogen	0.3
– calcium in terms of CaO, %, min	33
Particle size distribution, %	
Mass fraction of granules, mm	
– sized under 1 mm, max	5
– sized 1-4 mm, min	90
– sized over 6.3 mm	0
pH (1% aqueous solution)	5.5 – 6.5
Water solubility at 20 °C, g/100 cm ³	120
Friability, %	100

Packaging and storage:



bags

big bags



Do not mix calcium nitrate with fertilisers containing phosphates and sulphates.

Store in a dry insulated place, away from moisture and direct sunlight.

Calcium nitrate concentrated with boron (CN with B)

17N+32CaO+1B

Granular fertiliser containing fully water-soluble calcium and boron in combination with fast acting nitrate nitrogen.

High calcium content increases storability and quality of agricultural products. Calcium nitrate increases plant's resistance to environmental factors, improves quality of fruits and increases their shelf life.

The addition of boron stimulates the setting and preservation of crop ovaries. Ideal for light soils (sandy, sandy-loam and light loam soils).

Recommended for use in fertigation systems for all crops. Suitable for top-dressing sugar beet, vegetable, roots and tubers crops, fruit and berry crops, cotton.

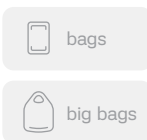
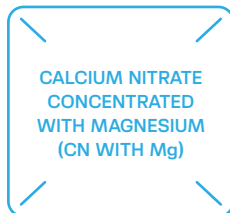


Appearance	white or grey-yellow granules
Mass fraction of total nitrogen (N), %	17
including mass fraction of:	
- nitrate nitrogen	16.7
- ammonium nitrogen	0.3
- calcium in terms of CaO, %, min	32
- boron in terms of B, %, max	1
Particle size distribution, %	
Mass fraction of granules, mm	
- sized under 1 mm, max	5
- sized 1-4 mm, min	90
- sized over 6.3 mm	0
pH (1% aqueous solution)	5.5 – 6.5
Water solubility at 20 °C, g/100 cm ³	120
Friability, %	100





Packaging and storage:



Do not mix calcium nitrate with fertilisers containing phosphates and sulphates.

Store in a dry insulated place, away from moisture and direct sunlight.

Calcium nitrate concentrated with magnesium (CN with Mg)

17N+32CaO+1MgO

Granular fertiliser containing fully water-soluble calcium and magnesium in combination with fast acting nitrate nitrogen.

High calcium content increases storability and quality of agricultural products. Calcium nitrate increases plant's resistance to environmental factors, improves quality of fruits and increases their shelf life.

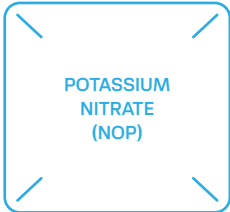
Magnesium improves absorption of phosphorus, supports activation of enzymes and accelerates formation of carbohydrates. Ideal for light soils (sandy, sandy-loam and light loam soils).

Recommended for use in fertigation systems on all crops.

Effective on vegetable, fruit and berry crops.

Appearance	white or grey-yellow granules
Mass fraction of total nitrogen (N), %	17
including mass fraction of:	
– nitrate nitrogen	16.7
– ammonium nitrogen	0.3
– calcium in terms of CaO, %, min	32
– magnesium in terms of MgO, %, max	1
Particle size distribution, %	
Mass fraction of granules, mm	
– sized under 1 mm, max	5
– sized 1-4 mm, min	90
– sized over 6.3 mm	0
pH (1% aqueous solution)	5.5 – 6.5
Water solubility at 20 °C, g/100 cm ³	120
Friability, %	100

Packaging and storage:



POTASSIUM
NITRATE
(NOP)

 bags

 big bags

Store in a dry insulated place, away from moisture and direct sunlight.

Potassium nitrate (NOP)

NK 13,7:46,2

Highly effective water-soluble nitrogen-potassium fertiliser with high potassium content. SOLAR potassium nitrate is a chemical purity benchmark for similar products.

Potassium supports the intensity of photosynthesis and oxidation, is involved in carbohydrate metabolism, and helps the plant retain water by strengthening cell walls. Potassium nitrate increases the plant's resistance to adverse environmental factors like rapid changes in water and temperature conditions.

Ideal for use in greenhouse farming, fertigation systems, for foliar feeding of grain, technical, fruit, berry and ornamental crops.



Appearance	white crystalline product
Mass fraction of total nitrogen (N), %	13.7
Including mass fraction of:	
- nitrate nitrogen	13.7
- potassium in terms of K ₂ O, %, min	46.2
- insoluble residue, %, max	0.01
pH (1% aqueous solution)	5.4
Water solubility at 20 °C, g/100 cm ³	31
Friability, %	100

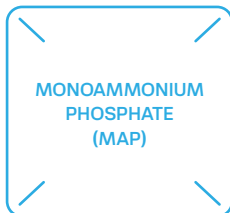
Monoammonium phosphate (MAP)

NP 12:61


Due to its 100% water solubility SOLAR MAP is an excellent source of nitrogen and phosphorus in an easily available form.

Monoammonium phosphate is effective during early stages of plant development, especially during the formation of the root system. Ideal for use in fertigation systems and in fertiliser blends.

Packaging and storage:



 bags

 big bags



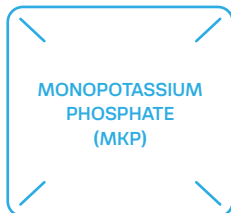
Do not mix MAP with fertilisers containing calcium and magnesium.

Store in a dry insulated place, away from moisture and direct sunlight.

Appearance	white crystals
Mass fraction of total nitrogen (N), %	12
including mass fraction of:	
– ammonium nitrogen	12
– water-soluble phosphates in terms of P ₂ O ₅ , %	61
– insoluble residue, %, max	0.1
pH (1% aqueous solution)	4.5
Water solubility at 20 °C, g/100 cm ³	37.1
Friability, %	100



Packaging and storage:



bags

big bags

Store in a dry insulated place, away from moisture and direct sunlight.

Monopotassium phosphate (MKP)

PK 52:34

Highly efficient water-soluble phosphorus-potassium fertiliser.

Monopotassium phosphate is the most concentrated phosphorus-potassium fertiliser on the market converted into the content of each element.

Fertiliser is effective during the late stages of vegetation period when the nitrogen application is not recommended.

Provides plants with an additional resistance effect against bacterial and fungal activity.

Ideal for use in greenhouses, fertigation systems, or for supplementary foliar feeding.

Can be used for production of complex water-soluble fertilisers.

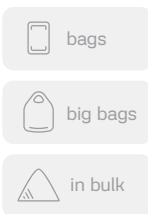
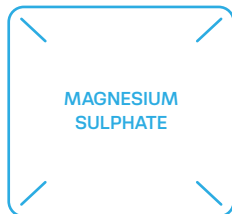


Appearance	white crystals
Mass fraction of:	
- water-soluble phosphates in terms of P_2O_5 , %	52
- water-soluble potassium in terms of K_2O , %	34
- insoluble residue, %, max	0.1
pH (1% aqueous solution)	4.5
Water solubility at 20°C, g/100 cm ³	24
Friability, %	100

* actually below 0,05



Packaging and storage:



Store in a dry insulated place, away from moisture and direct sunlight.

Magnesium sulphate



Water-soluble fertiliser containing magnesium and high content of sulphur in easily accessible form.

Magnesium in the fertiliser increases photosynthetic and fermentative activity of the plants.

Sulphur in sulphate form is easily absorbed by the root system. The sulphur content in the fertiliser promotes active growth of plants, increases their immunity and viability, and increases the overall product quality through increased protein content.

This fertiliser grade is recommended for early vegetative development stage of the plant.

Perfectly suitable for use in greenhouses and as foliar application in open fields.

Appearance	white crystals
Mass fraction of:	
- magnesium in terms of magnesium (MgO), %	18 ± 1
- magnesium (Mg), %	11 ± 1
- sulphates in terms of S, %	13
- insoluble residue, %, max	0.1
Particle size distribution, %	
Mass fraction of granules, mm	
- sized under 1 mm, max	5
- sized over 0.125 mm	90
Friability, %	100

Packaging and storage:



bags

Store in a dry insulated place, away from moisture and direct sunlight.

SOLAR NPK micro Starter

NPK 15:30:15+2MgO+TE, NPK 11:40:11+2MgO+TE, NPK 13:40:13+TE

Water-soluble phosphorus-rich NPK fertilisers.

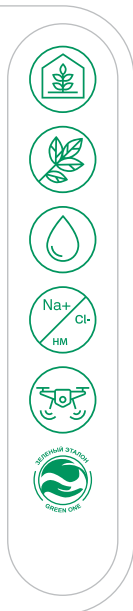
At the early growth stages the special formula of the fertiliser stimulates development of the root system, increases absorption of nutrients, improves metabolism, division and reproduction processes in plant cells. At the stage of budding and flowering the products accelerate formation of reproductive organs and improve quality of agricultural products.

A balanced ratio of nutrients makes these fertilisers suitable for all crops. Ideal for foliar application to field crops.



	15:30:15 +2MgO+TE	11:40:11 +2MgO+TE	13:40:13 +TE
Appearance	yellow crystals		
Mass fraction of:			
- total nitrogen (N), %	15	11	13
- nitrate nitrogen	4.4	3	4.5
- ammonium nitrogen	6	8	8.5
- amide nitrogen	4.6	-	-
- water-soluble phosphates in terms of P ₂ O ₅ , %	30	40	40
- potassium in terms of K ₂ O, %	15	11	13
- sulphates in terms of S, %	2	2	-
- magnesium in terms of MgO, %	2	2	-
- insoluble residue, %, max	0.1	0.1	0.1
Mass fraction of trace elements (* - in chelated EDTA form), %, min			
- boron (B)	0.02	0.02	0.02
- copper (Cu)*	0.01	0.01	0.01
- iron (Fe)*	0.1	0.1	0.1
- manganese (Mn)*	0.05	0.05	0.05
- molybdenum (Mo)	0.01	0.01	0.01
- zinc (Zn)*	0.01	0.01	0.01
Friability, %	100	100	100





Packaging and storage:



bags

Store in a dry insulated place, away from moisture and direct sunlight.

SOLAR NPK micro Universal

NPK 18:18:18+3MgO+TE, NPK 19:19:19+TE,
NPK 20:20:20+TE

The equal-ratio water-soluble grade fertilisers are designed for comprehensive plant nutrition at all phases of growth and support correct development of the plant throughout the growing season.

The products are effective during stress periods like drought, waterlogging, diseases, pests, etc.

A balanced ratio of nutrients makes these fertilisers suitable for all crops. Ideal for foliar application to field crops.

	18:18:18 +3MgO+TE	19:19:19 +TE	20:20:20 +TE
Appearance	green crystals		
Mass fraction of:			
- total nitrogen (N), %	18	19	20
- nitrate nitrogen	5.4	10.5	6
- ammonium nitrogen	3.6	8.5	4
- amide nitrogen	9	-	10
- water-soluble phosphates in terms of P ₂ O ₅ , %	18	19	20
- potassium in terms of K ₂ O, %	18	19	20
- sulphates in terms of S, %	2.5	-	-
- magnesium in terms of MgO, %	3	-	-
- insoluble residue, max, %	0.1	0.1	0.1
Mass fraction of trace elements (* - in chelated EDTA form), %, min			
- boron (B)	0.02	0.02	0.02
- copper (Cu)*	0.01	0.01	0.01
- iron (Fe)*	0.1	0.1	0.1
- manganese (Mn)*	0.05	0.05	0.05
- molybdenum (Mo)	0.01	0.01	0.01
- zinc (Zn)*	0.01	0.01	0.01
Friability, %	100	100	100

Packaging and storage:



bags

Store in a dry insulated place, away from moisture and direct sunlight.

SOLAR NPK micro Finisher

NPK 15:7:30+3MgO+TE, NPK 12:6:36+2.5MgO+TE, NPK 3:11:38+TE, NPK 3:11:38+4MgO+TE

Water-soluble potassium-rich NPK fertilisers.

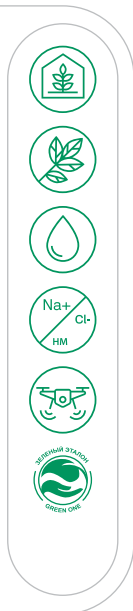
At the final stages of vegetation the products promote even ripening and intensive fruiting, improve taste, appearance and storability of agricultural products, increase sugar content in sugar beet roots and stimulate the plant's resistance to drought conditions.

A balanced ratio of nutrients makes these fertilisers suitable for all crops. Ideal for foliar application to field crops.



	15:7:30 +3MgO+TE	12:6:36 +2.5MgO+TE	3:11:38 +TE	3:11:38 +4MgO+TE
Appearance	pink crystals			
Mass fraction of:				
- total nitrogen (N), %	15	12	3	3
- nitrate nitrogen	8.7	10.6	0.2	3
- ammonium nitrogen	1.4	1.4	2.8	-
- amide nitrogen	4.9	-	-	-
- water-soluble phosphates in terms of P ₂ O ₅ , %	7	6	11	11
- potassium in terms of K ₂ O, %	30	36	38	38
- sulphate sulphur in terms of S, %, min	2.5	2	-	-
- magnesium in terms of MgO, %, min	3	2.5	-	4
- insoluble residue, %, max	0.1	0.1	0.1	0.1
Mass fraction of trace elements (* - in chelated EDTA form), %, min:				
- boron (B)	0.02	0.02	0.02	0.02
- copper (Cu)*	0.01	0.01	0.01	0.01
- iron (Fe)*	0.1	0.1	0.1	0.1
- manganese (Mn)*	0.05	0.05	0.05	0.05
- molybdenum (Mo)	0.01	0.01	0.01	0.01
- zinc (Zn)*	0.01	0.01	0.01	0.01
Friability, %	100	100	100	100





Packaging and storage:



bags

Store in a dry insulated place, away from moisture and direct sunlight.

SOLAR NPK micro+Amino

Starter 13:40:13+TE+Amino

Universal 20:20:20+TE+Amino

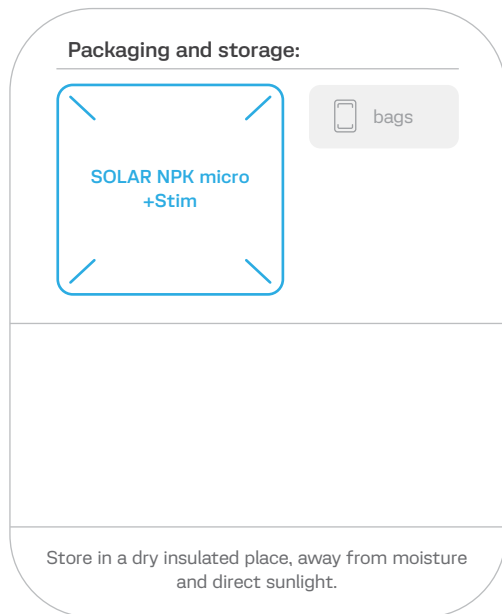
Finisher 12:6:36+2.5MgO+TE+Amino

Complex water-soluble fertilisers with trace elements and complex of amino acids.

This unique fertiliser includes a combination of 17 plant based amino acids. The complex of amino acids protects the crop from abiotic stress factors, optimizes water exchange, accelerates growth of generative organs and fertility of pollen, increases yield and improves storability characteristics of the end product.



	Starter 13:40:13+TE +Amino	Universal 20:20:20+TE +Amino	Finisher 12:6:36+2.5MgO+TE +Amino
Appearance	various colors crystals		
Mass fraction of:			
- total nitrogen (N), %	13	20	12
- nitrate nitrogen	4.5	6	10.6
- ammonium nitrogen	8.5	4	1.4
- amide nitrogen	-	10	-
- water-soluble phosphates in terms of P ₂ O ₅ , %	40	20	6
- potassium in terms of K ₂ O, %	13	20	36
- sulphate sulphur in terms of S, %, min	-	-	2
- magnesium in terms of MgO, %, min	-	-	2.5
- insoluble residue, max, %	0.1	0.1	0.1
Complex of Amino acids, %, min	1	1	1
Mass fraction of trace elements (* - in chelated form), %, min:			
- boron (B)	0.02	0.02	0.02
- copper (Cu)*	0.01	0.01	0.01
- iron (Fe)*	0.1	0.1	0.1
- manganese (Mn)*	0.05	0.05	0.05
- molybdenum (Mo)	0.01	0.01	0.01
- zinc (Zn)*	0.01	0.01	0.01
Friability, %	100	100	100



SOLAR NPK micro+Stim

Starter 13:40:13+TE+Stim

Universal 20:20:20+TE+Stim

Finisher 12:6:36+2.5MgO+TE+Stim

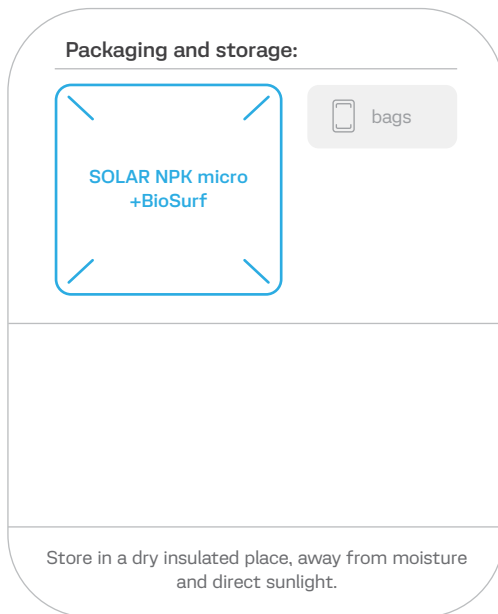
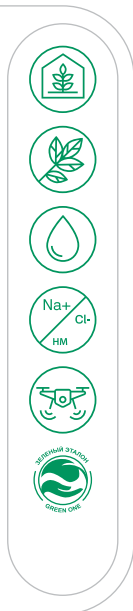
Complex water-soluble fertilisers with trace elements and an effective plant growth stimulant (PGS).

Growth stimulant is a participant of citric acid cycle (Krebs cycle). It effectively promotes development of root system and vegetative organs, improves metabolism of proteins, vitamins and chlorophyll in the plant and increases the overall yield of crops.



	Starter 13:40:13+TE +Stim	Universal 20:20:20+TE +Stim	Finisher 12:6:36+2.5MgO+TE +Stim
Appearance	various colors crystals		
Mass fraction of:			
- total nitrogen (N), %	13	20	12
- nitrate nitrogen	4.5	6	10.6
- ammonium nitrogen	8.5	4	1.4
- amide nitrogen	-	10	-
- water-soluble phosphates in terms of P ₂ O ₅ , %	40	20	6
- potassium in terms of K ₂ O, %	13	20	36
- sulphate sulphur in terms of S, %, min	-	-	2
- magnesium in terms of MgO, %, min	-	-	2.5
- insoluble residue, %, max	0.1	0.1	0.1
Growth stimulant, %, min	1	1	1
Mass fraction of trace elements (* - in chelated form), %, min:			
- boron (B)	0.02	0.02	0.02
- copper (Cu)*	0.01	0.01	0.01
- iron (Fe)*	0.1	0.1	0.1
- manganese (Mn)*	0.05	0.05	0.05
- molybdenum (Mo)	0.01	0.01	0.01
- zinc (Zn)*	0.01	0.01	0.01
Friability, %	100	100	100





SOLAR NPK micro+BioSurf

Starter 13:40:13+TE+BioSurf
Universal 20:20:20+TE+BioSurf
Finisher 12:6:36+2.5MgO+TE+BioSurf

Complex water-soluble fertiliser with trace elements and biological surfactant.

Biological surfactant increases the contact surface area of the droplet with the leaf surface and shows an increased adhesion causing better absorption of nutritional elements.

Though the surfactant doesn't represent a nutritional element itself, using water-soluble fertilisers with additional surfactant agent improves the intake efficiency of the elements following an increased crop yield. The agent is biologically synthesized and has no toxic effect on the crop.



	Starter 13:40:13+TE +BioSurf	Universal 20:20:20+TE +BioSurf	Finisher 12:6:36+2.5MgO+TE +BioSurf
Appearance	various colors crystals		
Mass fraction of:			
- total nitrogen (N), %	13	20	12
- nitrate nitrogen	4.5	6	10.6
- ammonium nitrogen	8.5	4	1.4
- amide nitrogen	-	10	-
- water-soluble phosphates in terms of P ₂ O ₅ , %	40	20	6
- potassium in terms of K ₂ O, %	13	20	36
- sulphate sulphur in terms of S, %, min	-	-	2
- magnesium in terms of MgO, %, min	-	-	2.5
- insoluble residue, %, max	0.1	0.1	0.1
Fraction of the biosurfactant, %, min	1	1	1
Mass fraction of trace elements (* - in chelated form), %, min:			
- boron (B)	0.02	0.02	0.02
- copper (Cu)*	0.01	0.01	0.01
- iron (Fe)*	0.1	0.1	0.1
- manganese (Mn)*	0.05	0.05	0.05
- molybdenum (Mo)	0.01	0.01	0.01
- zinc (Zn)*	0.01	0.01	0.01
Friability, %	100	100	100



Packaging and storage:



bags



AQUADROP fertilisers are not recommended for use in professional greenhouses due to their chloride content. Can be used in soil-based farm greenhouses.

Store in a dry insulated place, away from moisture and direct sunlight.

AQUADROP NPK

NPK 13:40:13, NPK 18:18:18, NPK 20:20:20, NPK 5:15:45

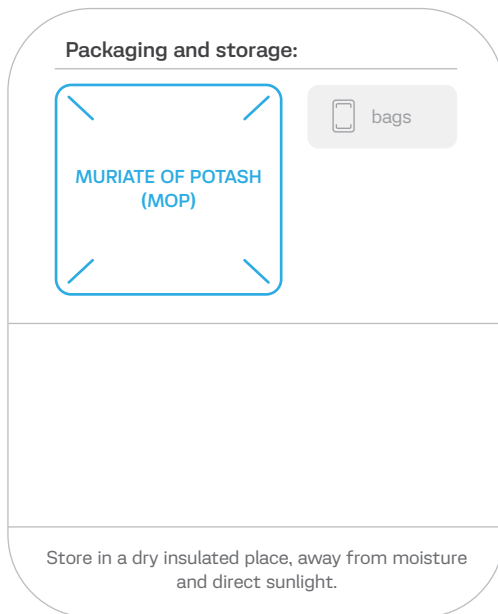
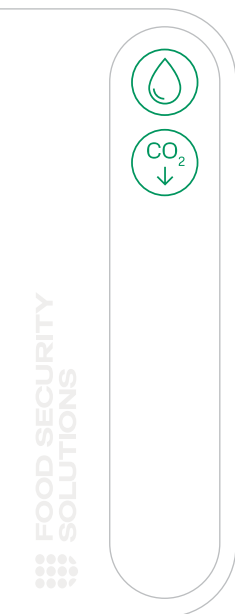
AQUADROP is a line of water-soluble complex fertilisers specially designed for fertigation of fruit and vegetable crops.

The line boasts a wide range of brands with optimal nutrient ratios to provide complete mineral nutrition throughout the growing season.

All AQUADROP products are suitable for drip irrigation systems.



	13:40:13	18:18:18	20:20:20	5:15:45
Appearance	white crystals			
Mass fraction of:				
- total nitrogen (N), %	13	18	20	5
- ammonium nitrogen	7.5	10.8	4	3
- nitrate nitrogen	-	7.2	-	-
- amide nitrogen	5.5	-	16	2
- water-soluble phosphates in terms of P ₂ O ₅ , %	40	18	20	15
- potassium in terms of K ₂ O, %	13	18	20	45
- insoluble residue, %, max	0.1	0.1	0.1	0.1
- chlorides in terms of Cl, %	10	14	15	34
Friability, %	100	100	100	100



Muriate of potash (MOP)

0:0:62

The most concentrated source of water-soluble potassium fertiliser for fertigation and foliar application.

Ideal water-soluble potassium fertiliser for all chloride-tolerant crops in open field fertigation systems.

Maximum concentration of K_2O and 100% water solubility.

Safe for irrigation systems.

Compatible with all types of water-soluble fertilisers.



Appearance	crystals of greyish-white color
Mass fraction of:	
- potassium chloride, %, min	98.2
- potassium in terms of K_2O , %, min	62
- moisture content, %, max	0.5
- insoluble residue, %, max	0.01
Granulometric composition, %	
- sized under 2 mm	100
Friability, %	100



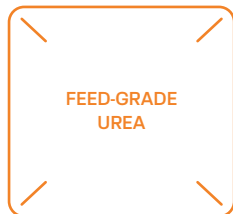
F

Feed grade
products





Packaging and storage:



bags



big bags

Store in a dry insulated place, away from moisture and direct sunlight.

Feed-grade urea

An effective protein supplement to boost dairy production.

- replenishes dietary deficiency of crude protein
- improves absorption of nutrients by organisms
- increases milk yield and animal weight gain

Appearance	white or slightly coloured granules
Mass fraction of:	
– total nitrogen in terms of dry matter, %, min	46.0
– biuret, max, %	3.0
– free ammonia, %, max	0.03
– hygroscopic water, %, max	0.3
pH	8.0 – 13.0

Particle size distribution, %:

– sized 1-4 mm, %, max	94
– sized 2-4 mm, %, max	50
– sized under 1 mm, %, max	5
– sized over 6 mm	0

Mass fraction of:

– fluorine, mg/kg, max	100
– arsenic, mg/kg, max	0.5
– lead, mg/kg, max	0.5
– cadmium, mg/kg, max	0.4
– mercury, mg/kg, max	0.1

Packaging and storage:



bags

big bags



Product safety is confirmed
under GMP + FSA standards.

Store in a dry insulated place, away from moisture
and direct sunlight.

Feed-grade monoammonium phosphate

An excellent source of phosphorus for nutrition enrichment and balancing. Phosphorus availability in this product is over 91%.

- boosts immunity
- increases milk yield and animal weight gain
- normalises metabolism
- improves meat quality

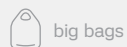
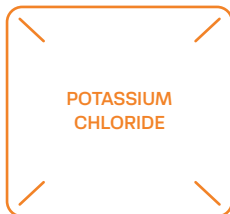


Appearance	white crystals
Mass fraction of:	
- phosphorus soluble in a 0.4% hydrochloric acid solution in terms of P_2O_5 , %	61
- nitrogen soluble in 0.4% hydrochloric acid solution, %	12
- water, %, max	0.3
Particle size distribution, %:	
- sized 4-7 mm, %, max	3
- sized over 7 mm, %	0
Mass fraction of:	
- fluorine, mg/kg, max	0.05
- arsenic, mg/kg, max	1
- lead, mg/kg, max	1
- cadmium, mg/kg, max	0.4
- mercury, mg/kg, max	0.1





Packaging and storage:



big bags

Store in a dry insulated place, away from moisture and direct sunlight.

Potassium chloride

A food additive used in the production of pre-mixtures and compound feeds to replenish potassium deficiency.

- maintains normal osmotic pressure, affects tissue excitability
- promotes digestion and improves metabolism
- promotes intensive growth and development of poultry
- increases resistance to thermal stress

Appearance	white with a grey or pink shade crystalline product
Mass fraction of:	
- potassium chloride, %	95.0 – 98.8
- sodium chloride, %	1.1 – 4.8
- water, %, max	0.5
Typical content of particles sized under 2 mm, %	100
Mass fraction of:	
- arsenic, mg/kg, max	50.0
- lead, mg/kg, max	50.0
- cadmium, mg/kg, max	0.4
- mercury, mg/kg, max	0.1



CONTACTS

Address:

Unit No: 1701, Uptown Tower,
Uptown Dubai, United Arab Emirates

Telephone:

+971 45605200

E-mail:

info@fss-dmcc.com

