umc DISTRIBUTION COMPANY

UMC DISTRIBUTION COMPANY

UMC Distribution Company DMCC measures its success by the efficiency of the services it offers, the quality of the products it distributes, and by the long-term satisfaction and loyalty of its customers. The Company is fully committed to contributing to efficient agriculture and global food security.

ABOUT US

UMC Distribution Company DMCC specializes in the distribution and supply of high quality fertilizers and industrial chemicals on a global scale, the company stands out for its unwavering commitment to quality and efficiency.

UMC Distribution Company DMCC was established with an aim of becoming a global leader in the distribution of fertilizers and industrial chemicals by developing distribution operations and sites across the world. The Company's unique value proposition is supported by its specialization in logistics and supply chains.

CONTENT

MINERAL FERTILIS ERS FOR AGRIC ULTURE 5

Mineral fertilisers:

PRODUCTS FOR INDUS TRIAL C HEMIS TRY

MINERAL FERTILISERS FOR AGRICULTURE

CONTENT

LEGEND


Suitable for greenhouse applications


Embedding into the soil is required


Suitable for foliar application


Can be used in irrigation systems

Products do not contain sodium, chlorine or heavy metals


Suitable for UAVs application


Can be used in fertiliser blends


Suitable for soil appication


Suitable for first half of the growing season


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


Suitable for basal application

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

N/NS/NP

Nitrogen fertilisers

Packaging and storage:

CALCIUM AMMONIUM NITRATE (CAN)

big bags

in bulk

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.

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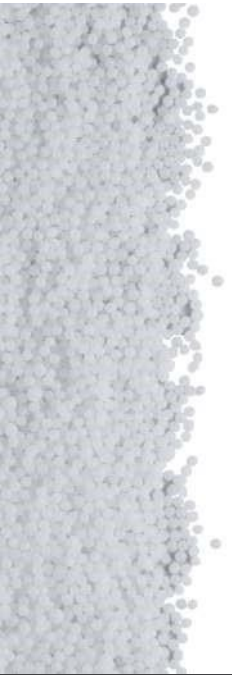
Appearance	white-grey granules
Mass fraction of total nitrogen (N), % including mass fraction of:	27
– ammonium nitrogen	13.5
– nitrate nitrogen	13.5
– calcium in terms of CaO, %	12
– calcium nitrate, %, max	1
Particle size distribution, % Mass fraction of granules with size, mm	
– sized under 1 mm,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

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

Urea prilled

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.

Packaging and storage:

bags

big bags

in bulk

!!! Upon request, urea can be treated with an anticaking agent

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

P/NP

Phosphate fertilisers

Packaging and storage:

MONOAMMONIUM PHOSPHATE (MAP)

big bags

in bulk

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.

	12:52
Appearance	
Mass fraction of total nitrogen (N), %, including mass fraction of:	12
– ammonium nitrogen, %	12
– total phosphates in terms of P_2O_5, %	52
– digestible phosphates in terms of P_2O_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

storage and application.

	20:20(14)
Appearance	granules from white to grey in color with various shades
Mass fraction of total nitrogen (N), %, including mass fraction of:	20
– ammonium nitrogen, %	20
– total phosphates in terms of P_2O_5, %	20
– digestible phosphates in terms P_2O_5, %	20
– sulphate sulphur in terms of S, % min	14
Particle size distribution, % Mass fraction of granules, mm	
– sized under 1 mm, max	3
– sized 1-5 mm, min	90
– sized over 6 mm	0
Friability, %	100

NP(S) 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

Packaging and storage:

NP(S) 20:20(14)

big bags

in bulk

of available potassium.

to be applied on all kinds of soils in spring. Excellent physical and chemical characteristics facilitate

NPK/NPKS

Granular complex fertilisers

Packaging and storage:

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

big bags

in bulk

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

Granular complex fertilisers with balanced composition of key nutrients.

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.

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.

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Appearance	white to various shades of grey or pink granules		
Mass fraction of:			
– total nitrogen (N), %	15	15	16
– ammonium nitrogen, %	8	15	8
– nitrate nitrogen, %	7	-	8
– total phosphates in terms of P_2O_5, %	15	15	16
– digestible phosphates in terms of P_2O_5, %, min	15	15	16
– potassium in terms of K_2O, %	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
	15:15:15	**15:15:15:11**	**16:16:16**

NPK/NPKS | Granular complex

Friability, %	100	100	100

DISTRIBUTION COMPANY

Packaging and storage:

NPKS 21:10:10:2
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 21:10:10:2, 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.

	21:10:10:2	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:	21	24	27
– ammonium nitrogen	11	12	15
– nitrate nitrogen	10	12	12
– total phosphates in terms of P_2O_5, %	10	6	6
– digestible phosphates in terms of P_2O_5, %, min	10	6	6
– potassium in terms of K_2O, %	10	12	6
– sulphate sulphur in terms of S, %, min	2	1	2
Particle size distribution, % Mass fraction of granules, mm			
– sized under 1 mm, max	3	3	3
– sized 2-5 mm, min	90	90	90
– sized over 6.3 mm	0	0	0
Friability, %	100	100	100

Packaging and storage:

NPKS 10:26:26:2

big bags

in bulk

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

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.

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	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
– ammonium nitrogen	10
– total phosphates in terms of P_2O_5, %	26
– digestible phosphates in terms of P_2O_5, %, min	25.5
– potassium in terms of K_2O, %	26
– sulphate sulphur in terms of S, %, 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 mm	0
Friability, %	10

Low-nitrogen formulations

NPKS 15:9:20:3, NPK 19:4:19,

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.

Packaging and storage:

NPKS 15:9:20:3
NPK 19:4:19

big bags

in bulk

* Various trace elements can be added to all NPK grades.

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

	15:9:20:3	19:4:19
Appearance	pink, light-pink or light-brown granules	
Mass fraction of:		
– total nitrogen (N), %	15	19
– ammonium nitrogen	9	10
– nitrate nitrogen	6	9
– total phosphates in terms of P_2O_5, %	9	4
– digestible phosphates in terms of P_2O_5, %, min	-	4
– potassium in terms of K_2O, %	20	19
– sulphate sulphur in terms of S, %, min	3	-
– magnesium in term of Mg, %, min	-	-
Moisure, %, max	1	1
Particle size distribution, % Mass fraction of granules, mm		
– sized under 1 mm, max	3	3
– sized 1-5 mm, min	90	90
– sized over 6.3 mm	0	0
Granule static stength, MPa, min	3.0	3.0
Friability, %	100	100

NPK/NPKS | Granular complex

MultiStart | MultiStart

Packaging and storage:

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

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 °C to +40 °C.

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

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.

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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	$5x10^4$	$5x10^4$
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
	8:20:30:3+BIO	**15:15:15:11+BIO**

	NPK/NPKS	Granular complex
Friability, %	100	100

WS

Water-soluble fertilisers

WS Water-soluble

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% (vs 78% content in similar products)).

The product is in anhydrated form and has a low content of ammonium nitrogen. 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.

Packaging and storage:

CALCIUM NITRATE CONCENTRATED (CN)

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.

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

with boron (CN with B)

17N+32C aO+1B

Granular fertiliser containing fully water- soluble

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).

Calcium nitrate concentrated

calcium and boron in combination with fast acting

Packaging and storage:

CALCIUM NITRATE CONCENTRATED WITH BORON (CN WITH B)

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.

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	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, %	

Recommended for use in fertigation systems for all crops.

WS Water-soluble

Suitable for top-dressing sugar beet, vegetable, roots and tubers crops, fruit and berry crops, cotton.

100

Packaging and storage:

CALCIUM NITRATE CONCENTRATED WITH MAGNESIUM (CN WITH Mg)

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 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.

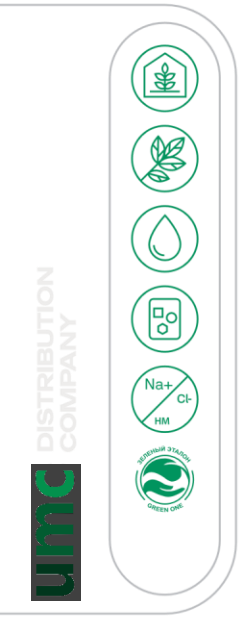
Effective on vegetable, fruit and berry crops.

Appearance	white or grey-yellow granules
Mass fraction of total nitrogen (N), % including mass fraction of:	17
– 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

Potassium nitrate (NOP) NK 13,7:46,2

Highly effective water- soluble nitrogen-p otassium 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.



Packaging and storage:

POTASSIUM NITRATE (NOP)

bags

big bags

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

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_2O, %, 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, %	

Ideal for use in greenhouse farming, fertigation systems, for

foliar feeding of grain, technical, fruit, berry and ornamental crops.

100

WS Water-soluble

Packaging and storage:

NPK 13:2:44
NPK 13:3:43
NPKS 13:0:44:1+1MgO

bags

big bags

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

NPK 13:2:44, NPK 13:3:43 NPKS 13:0:44:1+1MgO

Potassium nitrate based NPK fertiliser with a high potassium content, highly soluble in water, suitable for all crops. A perfect alternative to the common potassium nitrate popular on the market of water soluble fertilisers.

The optimal combination of nutrients to apply at the stage of growth and ripening of fruits, as well as top dressing during the growing season.

Product formulation enhances photosynthesis, helps the plant to cope with abiotic stress factors and increases quality and storability of agricultural products.

Na+ Cl- HM

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13:2:44 13:3:43 13:0:44:1+1MgO

Appearance	white crystalline product		
Mass fraction of:			
– total nitrogen (N), %, min	13	13	13
– nitric N (N-NO_3), %, min	12.6	12.5	13
– ammoniacal N (N-NH_4), %, min	0.4	0.5	-
– total phosphates (P_2O_5), %	2	3	-
– water-soluble P_2O_5, %, min	2	3	-
– water-soluble potassium K_2O, %, min	44	43	44
– water-soluble magnesium oxide (MgO), %, min	-	-	1
Moisture, %, max	0.5	0.5	0.5
Particle size distribution, % Mass fraction of granules, mm			
– sized under 1 mm, max	5	5	5
– sized over 0.1 mm, min	90	90	90
Friability, %	100	100	100

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.

Monoammonium phosphate (MAP)

Packaging and storage:

MONOAMMONIUM PHOSPHATE (MAP)

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), % including mass fraction of:	12
– ammonium nitrogen	12
– water-soluble phosphates in terms of P_2O_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, %	

MAP contains the highest phosphorus content in comparison

to other fertiliser products in a highly availible orthophosphate form.

100

Packaging and storage:

SOLAR NPK micro Starter

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.

Contains trace elements, including in a highly effective chelated form (EDTA).

	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_2O_5, %	30	40	40
– potassium in terms of K_2O, %	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

S OLAR 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.

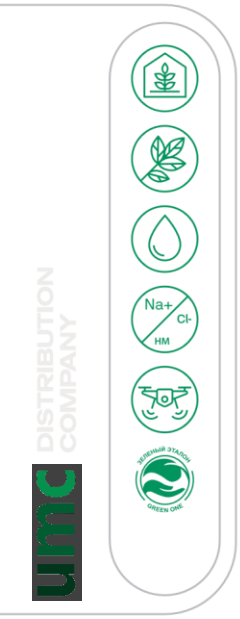
A balanced ratio of nutrients makes these fertilisers suitable for all crops. Ideal for foliar application to field crops.

	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_2O_5, %	18	19	20
– potassium in terms of K_2O, %	18	19	20
– sulphates in terms of S, %	2.5	-	-

	3	-	-
– magnesium in terms of MgO, %			
– 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

WS Water-soluble

Contains trace elements, including in a highly effective chelated form (EDTA).



Packaging and storage:

SOLAR NPK micro Universal

bags

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

Friability,	%	100	100	100

Packaging and storage:

SOLAR NPK micro Finisher

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.

Contains trace elements, including in a highly effective chelated form (EDTA).

	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_2O_5, %	7	6	11	11
– potassium in terms of K_2O, %	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

S OLAR NPK micro+S tim

Starter 13:40:13+TE+Stim Universal 20:20:20+TE+Stim Finisher 12:6:36+2,5MgO+TE+S tim

	S tarter 13:40:13+TE +S tim	Universal 20:20:20+TE +S tim	Finisher 12:6:36+2.5MgO+TE +S tim
	various colors crystals		
Appearance			
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_2O_5, %	40	20	6
– potassium in terms of K_2O, %	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

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.

Contains trace elements, including in a highly effective chelated form (EDTA).

Packaging and storage:

SOLAR NPK micro +Stim

bags

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

Packaging and storage:

bags

AQUADROP fertilisers are not recommended for use in soilless 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.

DISTRIBUTION COMPANY

	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_2O_5, %	40	18	20	15
– potassium in terms of K_2O, %	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

PRODUCTS FOR INDUSTRIAL CHEMISTRY

PRODUCTS FOR INDUSTRIAL CHEMISTRY

I for industrial chemistry

LEGEND

- Construction
- Chemical industry
- Mining
- Fire-extinguishing equipment
- Glass-making
- Petroleum production
- Diesel exhaust treatment
- Metalworking
- Woodworking

Anhydrous calcium nitrate

$Ca(NO_3)_2$

Anhydrous calcium nitrate is widely used in various industries.

The product is often used in the oil and gas sector. During well work-overs, killing fluids are used, which create back pressure inside the well and plug it. Calcium nitrate allows killing fluids to be made with different density levels and therefore be used for a wide range of formation pressure values. An important advantage of calcium nitrate is that it does not cause clogging of the bottomhole area in a productive formation, which prevents adverse impacts on the well flow rate.

As an element of multi-purpose additives, calcium nitrate is used in concrete production: it reduces the freezing point, accelerates strength development of cold and hot concrete, increases water resistance, reduces efflorescence and ensures flat surface finishes.

Mass fraction of:	
– calcium, %, min	96
– water, %, max	3
– ammonium nitrogen, %, max	0.3*
water-insoluble residue, %, max	0.1
Static strength of granules, MPa (kgf/cm2), min	2.0 (20)
Particle size distribution, % Mass fraction of granules, mm	
– sized under 1 mm, %, max	10
– sized 1-4 mm, %, min	90
– sized under 6 mm, %	100

Packaging, transportation and storage:

ANHYDROUS CALCIUM NITRATE

bags

big bags

Transportation by rail, road and water transport in accordance with applicable regulations.

Store in a dry insulated place.

Calcium nitrate can also be used in external finishing works, in the creation of foundations, construction of transport infrastructure and production of de-icing agents for airports.

Friability, %	100

* Under an agreement with customers, mass fraction of ammonium nitrogen in terms of nitrogen can be limited to 0.1%

Packaging, transportation and storage:

Transportation by rail, road and water transport in accordance with applicable regulations.

Store in a dry insulated place.

Technical potassium nitrate

KNO_3

Technical potassium nitrate is widely used in glass-making due to its high chemical purity and very low content of chlorides, sulphates and insoluble impurities.

Nitrate of potassium is used in the processes of producing colored explosives.

	Grade B
Mass fraction of:	
– potassium nitrate, %, min	99.85
– water, %, max	0.2
– chloride salts in terms of NaCl, %, max	0.03
– water-insoluble residue in dry matter, %, max	0.03
– substances oxidised by potassium permanganate in terms of KNO_2 in dry matter, %, max	0.01
– calcium and magnesium salts in terms of Ca, %, max	0.02
– iron, %, max	not regulated

Technical water-soluble MAP

$NH_4H_2PO_4$

Technical water-soluble monoammonium phosphate is a versatile flame retardant.

In particular, it is used as a water-soluble agent for fireproofing of wood, wooden boards, plywood, and fabric. MAP can be successfully used in extinguishing firesof classes A, B, C and E. It is also used in the production of matches as a flame retardant agent.

As MAP does not contain any insoluble impurities, it dissolves completely and is better absorbed by target materials like fabric, plywood or wood.

DISTRIBUTION COMPANY

umc

Packaging, transportation and storage:

TECHNICAL WATER-SOLUBLE MAP

bags

big bags

Transportation by rail, road and water transport in accordance with applicable regulations.

Store in a dry insulated place.

Mass fraction of:	
– monoammonium phosphate, %, min	99
– water, %, max	0.3
– water-insoluble residue, %, max	

MAP is used as a component in the production of

lithium-iron-phosphate batteries (LiFePO4, LFP), including for electric vehicles.

0.1

Packaging, transportation and storage:

SODIUM NITRATE

bags

Transportation by rail, road and water transport in accordance with applicable regulations.

Store in a dry insulated place.

Sodium nitrate

$NaNO_3$

Sodium nitrate is used as a component of complex additives to reduce the freezing point of concrete slurries in construction.

Sodium nitrate also accelerates the strength development of the slurry and improves the quality of precast concrete structures. An important quality of sodium nitrate in the construction applications is its ability to inhibit corrosion of rebars. Sodium nitrate can also be used for external and internal finishing works. In glass-making, sodium nitrate improves optical properties of glass. As a strong oxidising agent, sodium nitrate is widely used as an additional oxidiser in the production of emulsion explosives and pyrotechnic products. In metalworking, sodium nitrate is used in the preparation of fluxes for soldering and welding of metals, and in etching and melting.

DISTRIBUTION COMPANY

umc

	Grade A	Grade B
Mass fraction of:		
– sodium nitrate in dry matter, %, min	99.8	99.5
– water, %, max	0.5	0.5
– water-insoluble substances, %, max	0.03	0.03
– chloride salts in terms of NaCl, %, max	0.15	0.3
– oxidisable substances in terms of $NaNO_2$, %, max	0.01	0.2
– iron in terms of Fe_2O_3, %, max	0.001	-
– chromium in terms of Cr_2O_3, %, max	0.0001	-

Sodium nitrite

$NaNO_2$

Packaging, transportation and storage:

SODIUM NITRITE

bags

Transportation by rail, road and water transport in accordance with applicable regulations.

Store in a dry insulated place.

in emulsion explosives, as a component in metalworking,

Mass fraction of:	
– sodium nitrite ($NaNO_2$), %, min	98.5
– sodium nitrate ($NaNO_3$), %, max	1.0
– sodium chloride (NaCl) in dry matter, %, max	0.17
– water-insoluble residue, %, max	0.03
– water, %, max	1.4

Sodium nitrite is used as a gas generating additive

and as an oxidising agent in well yield enhancement processes in the oil and gas sector. In construction, sodium nitrite is used as an anti-freeze additive.

Packaging, transportation and storage:

TECHNICAL UREA

bags

big bags

in bulk

Transportation by rail, road and water transport in accordance with applicable regulations.

Store in a dry insulated place.

Technical urea

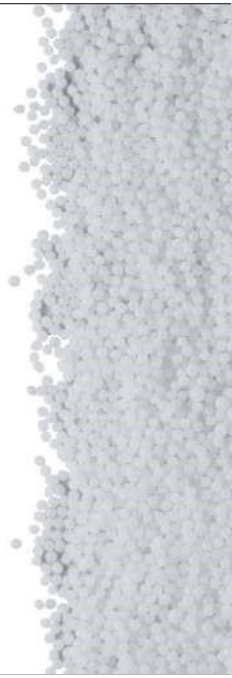
CH_4N_2O

Urea is used in the production of plastics, adhesives, urea formaldehyde resins and the ADBLUE AUS 32 agent for treatment of diesel exhaust of industrial plants, vessels and vehicles. Technical grade is commonly used for glue and resins production and wood processing.

For orders with extra purity requirements, urea can be supplied without anti-caking treatment.

DISTRIBUTION COMPANY

	Prilled	Microprilled
	Premium grade	
Mass fraction of:		
– nitrogen in dry matter, %, min	46.3	46.2
– biuret, %, min	0.6	0.6
– free ammonia, %, max	0.01	0.01
Mass fraction of water, %, max:		
– hygroscopic	0.3	0.3
– total	0.6	0.5

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DISTRIBUTION
COMPANY

DISTRIBUTION COMPANY

C ONTACTS

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