CHEMICAL PLANTS “Siarkopol” TARNOBRZEG Ltd

Agricultural Fertilisers

Product Catalogue

SIARKOPOL

zchsiarkopol.pl

Fertilisers for every crop!

MSDS

Table of Contents

Granulated simple superphosphate

P (19,5)

PFC 1(C)(I)(a)(i):
Simple solid inorganic macronutrient fertilizer

Declared Macronutrient:

Total phosphorus pentoxide (P_2O_5), % (m/m)	**19.5**
Phosphorus pentoxide (P_2O_5) soluble in water, % (m/m)	17.0
Phosphorus pentoxide (P_2O_5) soluble in neutral ammonium citrate solution, % (m/m)	19.0

The fertiliser also contains undeclared macronutrients:
- **calcium** calculated as total calcium oxide (CaO) (approx. 30% (m/m)) and water-soluble calcium oxide (CaO) (approx. 18% (m/m))
- **sulphur** calculated as total sulphur trioxide (SO_3) (approx. 30% (m/m)) and water-soluble sulphur trioxide (SO_3) (approx. 18% (m/m))

Granulometry:
Granules. Sieved through a 5 mm mech sieve:
at least 95% (m/m).
Granules. Sieved through a 2 mm mech sieve:
not more than 10% (m/m).

Components:
Powder simple superphosphate[1] (CAS no. 8011-76-5)
Where[1] CMC 1: Substances and mixtures, primary.

Purpose

GSSP is a traditional, phosphate mineral fertiliser. It is suitable for all field crops and all soil types. It is also effective in fertilising meadows and pastures, as well as permanent crops. This is a per-sowing fertiliser. It should be mixed with the soil to a depth of 15-20 cm. On grassland and permanent crops, the fertiliser remains on the surface without being covered by soil and its components are gradually moved downwards by rainfall.

BIG BAG **500 kg**

Bag **50 kg**

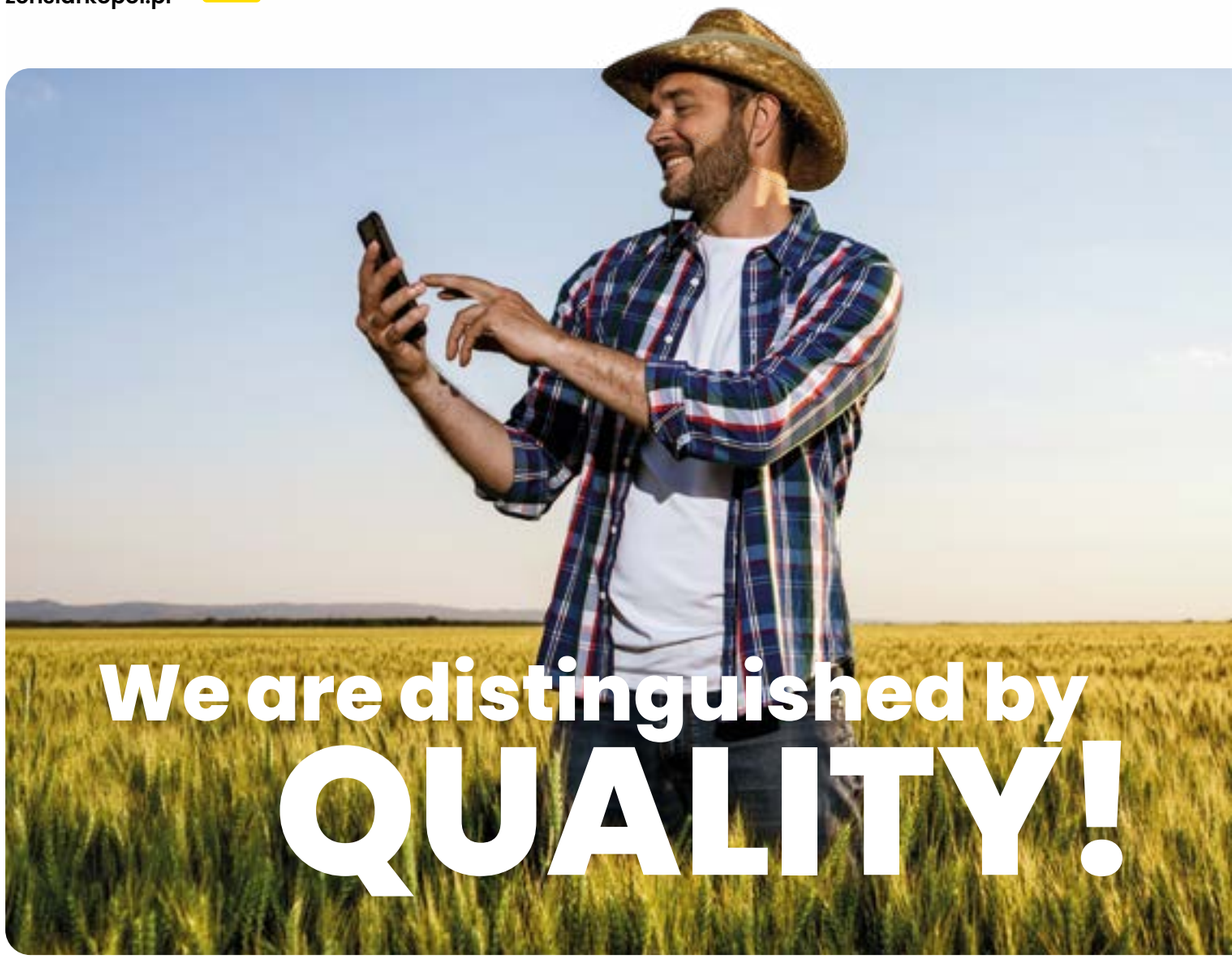
Fertiliser Doses

Recommended fertiliser doses in kg/ha

Cultivated plants	**Fertiliser dose** depending on the content of phosphorus in the soil
Spring cereals	210 – 350
Winter cereals	250 – 390
Rapeseed	300 – 400
Beetroots	350 – 450
Potatoes	180 – 300
Maize	300 – 450
Leguminous plants	200 – 300
Small-seeded legumes	200 – 350
Grassland	200 – 300

These are recommended rates. We recommend that farmers exchange information with their advisors in order to adjust the recommendations to their specific situation and avoid over-fertilisation.

Detailed information on the product and the hazards is provided in the safety data sheet.



Compound Fertilisers

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BIG BAG **500 kg**

Bag **50 kg**

Potafoska 12

NPK 4-13-12

PFC 1(C)(I)(a)(ii):
Compound solid inorganic macronutrient fertiliser

Declared Macronutrients:

Total nitrogen (N) in ammonium form, % (m/m)	**4.0**
Total phosphorus pentoxide (P_2O_5) % (m/m)	**13.0**
Phosphorus pentoxide (P_2O_5) soluble in water, % (m/m)	11.0
Potassium oxide (K_2O) soluble in water, % (m/m)	**12.0**

The fertiliser also contains undeclared macronutrients:
- **calcium** calculated as total calcium oxide (CaO) (approx. 18% (m/m)) and water-soluble calcium oxide (CaO) (approx. 10% (m/m))
- **sulphur** calculated as total sulphur trioxide (SO_3) (approx. 28% (m/m)) and water-soluble sulphur trioxide (SO_3) (approx. 20% (m/m))

Granulometry:
Granules. Sieved through a 5 mm mech sieve:
at least 95% (m/m).
Granules. Sieved through a 2 mm mech sieve:
not more than 10% (m/m).

Components:
Powder simple superphosphate[1] (CAS no. 8011-76-5), potassium chloride[1] (CAS no. 7447-40-7), ammonium sulphate[2] (CAS no. 7783-20-2)
Where[1] CMC 1: Primary raw materials and mixtures.
[2] CMC 11: By-products.

Purpose

POTAFOSKA 12 is a compound mineral fertiliser containing nutrients in a form easily absorbed by plants. It is primarily intended for winter cereals and winter rapeseed. It can also be effectively applied to almost all spring crops and grassland, supplying nitrogen according to the needs of the cultivated plants. The fertiliser contains sulphur necessary for the construction of proteins.

Application Rules

It is a pre-sowing fertiliser. It should be mixed with the soil to a depth of 10-15 cm. On grassland, fertiliser should be spread in early spring according to the dose of phosphorus intended for the whole vegetation period.

Fertiliser Doses

Recommended fertiliser doses in kg/ha

Cultivated plants	**Fertiliser dose** depending on the P and K content in the soil
Winter cereals	350 – 550
Spring cereals	250 – 500
Rapeseed	300 – 550
Sugar beet	350 – 600
Legumes and small-seeded legumes	300 – 550
Grassland	350 – 650

These are recommended doses. We recommend that farmers exchange information with their advisors in order to adjust the recommendations to their specific situation and avoid over-fertilisation.

Detailed information on the product and the hazards is provided in the safety data sheet.

BIG BAG **500 kg**

Bag **50 kg**

Potafoska with magnesium

PK (Mg) 13,5-13 (4)

PFC 1(C)(I)(a)(ii):
Compound solid inorganic macronutrient fertiliser

Declared Macronutrients:

Total phosphorus pentoxide (P_2O_5), % (m/m)	**13.5**
Phosphorus pentoxide (P_2O_5) soluble in water, % (m/m)	10.5
Potassium oxide (K_2O) soluble in water, % (m/m)	**13.0**
Total magnesium oxide (MgO), % (m/m)	**4.0**

The fertiliser also contains undeclared macronutrients:
- **calcium** calculated as total calcium oxide (CaO) (approx. 20% (m/m)) and water-soluble calcium oxide (CaO) (approx. 11% (m/m))
- **sulphur** calculated as total sulphur trioxide (SO_3) (approx. 20% (m/m)) and water-soluble sulphur trioxide (SO_3) (approx. 11% (m/m))

Granulometry:
Granules. Sieved through a 5 mm mech sieve:
at least 95% (m/m).
Granules. Sieved through a 2 mm mech sieve:
not more than 10% (m/m).

Components:
Powder simple superphosphate[1] (CAS no. 8011-76-5), potassium chloride[1] (CAS no. 7447-40-7), magnesite[1]
Where[1] CMC 1: Primary raw materials and mixtures.

Purpose

Granulated **POTAFOSKA WITH MAGNESIUM** is a compound mineral fertiliser containing nutrients in a form easily absorbed by plants. The fertiliser contains sulphur necessary for the construction of proteins. It is recommended for fertilising soil low in magnesium and for grassland. It is suitable for all field crops, especially winter cereals and rapeseed.

Application Rules

This is a typical pre-sowing fertiliser. It should be mixed with the soil to a depth of 15 cm.
When applied to grasslands, the fertiliser should be spread in early spring according to the rate of phosphorus intended for the whole vegetation period, taking into account the phosphorus content in the soil. After application of granulated **POTAFOSKA WITH MAGNESIUM**, top-dressing the plants with nitrogen is recommended.

Fertiliser Doses

Recommended fertiliser doses in kg/ha

Cultivated plants	**Fertiliser dose** depending on the content of phosphorus in the soil
Spring cereals	200 – 350
Winter cereals	300 – 430
Potatoes (on manure)	300 – 480
Winter rapeseed	300 – 520
Beetroots (on manure)	410 – 620
Maize (for a silo)	370 – 570
Legumes	280 - 430
Grassland	270 - 420

These are recommended doses. We recommend that farmers exchange information with their advisors in order to adjust the recommendations to their specific situation and avoid over-fertilisation.

Detailed information on the product and the hazards is provided in the safety data sheet.

BIG BAG **500 kg**

Bag **50 kg**

Tarnogran

PK (Mg) 12-23 (4)

PFC 1(C)(I)(a)(ii):
Compound solid inorganic macronutrient fertiliser

Declared Macronutrients:

Total phosphorus pentoxide (P_2O_5), % (m/m)	**12.0**
Phosphorus pentoxide (P_2O_5) soluble in water, % (m/m)	5.0
Potassium oxide (K_2O) soluble in water, % (m/m)	**23.0**
Total magnesium oxide (MgO), % (m/m)	**4.0**
Magnesium oxide (MgO) soluble in water, % (m/m)	2.0

The fertiliser also contains undeclared macronutrients:
- **calcium** calculated as total calcium oxide (CaO) (approx. 16% (m/m)) and water-soluble calcium oxide (CaO) (approx. 6% (m/m))
- **sulphur** calculated as total sulphur trioxide (SO_3) (approx. 13% (m/m)) and water-soluble sulphur trioxide (SO_3) (approx. 10% (m/m))

Granulometry:
Granules. Sieved through a 5 mm mech sieve:
at least 95% (m/m).
Granules. Sieved through a 2 mm mech sieve:
not more than 10% (m/m).

Components:
Potassium chloride[1] (CAS no. 7447-40-7), superphosphate poorly acidified[1] (custom semi-finished product), powder simple superphosphate[1] (CAS no. 8011-76-5), powder magnesium sulphate[1] (CAS no. 7487-88-9)
Where[1] CMC 1: Primary raw materials and mixtures.

Purpose

TARNOGRAN is a compound fertiliser, suitable for root crops, rapeseed, maize, cereals and grassland, especially in soils low in magnesium and potassium. It can also be used in vegetable farming and horticulture. The fertiliser's granular form and chemical composition enable the plants to benefit from the nutrients gradually released from the fertiliser throughout the growth period.

Application Rules

TARNOGRAN can be applied to all soil types, including acid soils. It should be mixed with the soil to a depth of 10-20 cm.

Fertiliser Doses

Recommended fertiliser doses in kg/ha

Cultivated plants	**Fertiliser dose** depending on the P and K content in the soil
Sugar beet	400 – 600
Winter rapeseed	250 – 550
Maize	300 – 800
Winter cereals	200 – 500
Grassland	200 – 500

These are recommended doses. We recommend that farmers exchange information with their advisors in order to adjust the recommendations to their specific situation and avoid over-fertilisation.

Detailed information on the product and the hazards is provided in the safety data sheet.

Compound Fertilisers

BIG BAG **500 kg**

Bag **50 kg**

Tarnogran K

NPK (Mg) 3,5-10-21 (3)

the fertiliser contains micronutrients (B), (Zn)

PFC 1(C)(I)(a)(ii):
Compound solid inorganic macronutrient fertiliser with micronutrients

Declared Nutrients:

Total nitrogen (N) in ammonium form, % (m/m)	**3.5**
Total phosphorus pentoxide (P_2O_5), % (m/m)	**10.0**
Phosphorus pentoxide (P_2O_5) soluble in water, % (m/m)	5.5
Potassium oxide (K_2O) soluble in water, % (m/m)	**21.0**
Total magnesium oxide (MgO), % (m/m)	**3.0**
Magnesium oxide (MgO) soluble in water, % (m/m)	2.0
Total boron (B) as sodium salt*, % (m/m)	**0.10**
Total zinc (Zn) as sulphate*, % (m/m)	**0.30**

* The above-mentioned micronutrients contained in the fertiliser are partially soluble in water, in variable amounts.

The fertiliser also contains undeclared macronutrients:
- **calcium** calculated as total calcium oxide (CaO) (approx. 12% (m/m)) and water-soluble calcium oxide (CaO) (approx. 5% (m/m))
- **sulphur** calculated as total sulphur trioxide (SO_3) (approx. 18% (m/m)) and water-soluble sulphur trioxide (SO_3) (approx. 15% (m/m))

Granulometry:
Granules. Sieved through a 5 mm mech sieve:
at least 95% (m/m).
Granules. Sieved through a 2 mm mech sieve:
not more than 10% (m/m).

Components:
Potassium chloride[1] (CAS no. 7447-40-7), superphosphate poorly acidified[1] (custom semi-finished product), powder simple superphosphate[1] (CAS no. 8011-76-5), ammonium sulphate[2] (CAS no. 7783-20-2), powder magnesium sulphate[1] (CAS no. 7487-88-9)
Where[1] CMC 1: Primary raw materials and mixtures.
[2] CMC 11: By-products.

Purpose

TARNOGRAN K is intended mainly to fertilise maize and winter cereals, beetroots, leguminous plants and fruit trees.

Application Rules

TARNOGRAN K may be applied to soils with neutral to acid pH. It should be mixed with the soil to a depth of 10-15 cm.

Fertiliser Doses

Recommended fertiliser doses in kg/ha

Cultivated plants	**Fertiliser dose** depending on the P and K content in the soil
Maize	500 – 800
Sugar and fodder beet	550 – 900
Winter cereals	300 – 500
Fruit trees and bushes	350 – 600

These are recommended doses. We recommend that farmers exchange information with their advisors in order to adjust the recommendations to their specific situation and avoid over-fertilisation.

Use only when justified. Do not exceed the recommended dose.

Detailed information on the product and the hazards is provided in the safety data sheet.

Compound Fertilisers

Tarnogran R with boron

BIG BAG **500 kg**

Bag **50 kg**

NPK (Mg) 4-9-19 (3)

the fertiliser contains micronutrients (B)

PFC 1(C)(I)(a)(ii):
Compound solid inorganic macronutrient fertiliser with a micronutrient

Declared Nutrients:

Total nitrogen (N) in ammonium form, % (m/m)	**4.0**
Total phosphorus pentoxide (P_2O_5), % (m/m)	**9.0**
Phosphorus pentoxide (P_2O_5) soluble in water, % (m/m)	5.0
Potassium oxide (K_2O) soluble in water, % (m/m)	**19.0**
Total magnesium oxide (MgO), % (m/m)	**3.0**
Magnesium oxide (MgO) soluble in water, % (m/m)	2.0
Total boron (B) as sodium salt, % (m/m)*	**0.2**

*Boron contained in the fertiliser is partially soluble in water, in variable amounts.

The fertiliser also contains undeclared macronutrients:
- **calcium** calculated as total calcium oxide (CaO) (approx. 13% (m/m)) and water-soluble calcium oxide (CaO) (approx. 5% (m/m))
- **sulphur** calculated as total sulphur trioxide (SO_3) (approx. 22% (m/m)) and water-soluble sulphur trioxide (SO_3) (approx. 19% (m/m))

Granulometry:
Granules. Sieved through a 5 mm mech sieve:
at least 95% (m/m).
Granules. Sieved through a 2 mm mech sieve:
not more than 10% (m/m).

Components:
Potassium chloride[1] (CAS no. 7447-40-7), superphosphate poorly acidified[1] (custom semi-finished product), powder simple superphosphate[1] (CAS no. 8011-76-5), ammonium sulphate[2] (CAS no. 7783-20-2), powder magnesium sulphate[1] (CAS no. 7487-88-9)
Where[1] CMC 1: Primary raw materials and mixtures.
[2] CMC 11: By-products.

Purpose

TARNOGRAN R with boron is a compound mineral fertiliser for rapeseed, white mustard, cabbage and leguminous plants. It is also suitable for root crops with supplementation of the required nitrogen rate, e.g. ammonium nitrate. The chemical composition and forms of components in the fertiliser ensure good plant nutrition throughout the whole vegetation period. It is recommended for a wide range of agricultural crops requiring sulphur, calcium and magnesium, in addition to phosphorus and potassium.

Application Rules

The fertiliser may be applied to soils with neutral to acid pH. It should be mixed with the soil to a depth of 10-20 cm.

Fertiliser Doses

Recommended fertiliser doses in kg/ha

Cultivated plants	**Fertiliser dose** depending on the P and K content in the soil
Winter rapeseed	200 - 700
Field bean, white lupin, yellow lupin, blue lupin	200 - 700

These are recommended doses. We recommend that farmers exchange information with their advisors in order to adjust the recommendations to their specific situation and avoid over-fertilisation.

Use only when justified. Do not exceed the recommended dose.

Detailed information on the product and the hazards is provided in the safety data sheet.

Compound Fertilisers

Tarnogran 21

BIG BAG **500 kg**

Bag **50 kg**

NPK (Mg) 4-10-21 (3)

PFC 1(C)(I)(a)(ii):
Compound solid inorganic macronutrient fertiliser

Declared Macronutrients:

Total nitrogen (N) in ammonium form, % (m/m)	**4.0**
Total phosphorus pentoxide (P_2O_5), % (m/m)	**10.0**
Phosphorus pentoxide (P_2O_5) soluble in water, % (m/m)	5.5
Potassium oxide (K_2O) soluble in water, % (m/m)	**21.0**
Total magnesium oxide (MgO), % (m/m)	**3.0**
Magnesium oxide (MgO) soluble in water, % (m/m)	2.0

The fertiliser also contains undeclared macronutrients:
- **calcium** calculated as total calcium oxide (CaO) (approx. 12% (m/m)) and water-soluble calcium oxide (CaO) (approx. 5% (m/m))
- **sulphur** calculated as total sulphur trioxide (SO_3) (approx. 20% (m/m)) and water-soluble sulphur trioxide (SO_3) (approx. 17% (m/m))

Granulometry:
Granules. Sieved through a 5 mm mech sieve:
at least 95% (m/m).
Granules. Sieved through a 2 mm mech sieve:
not more than 10% (m/m).

Components:
Potassium chloride[1] (CAS no. 7447-40-7), superphosphate poorly acidified (custom semi-finished product), ammonium sulphate[2] (CAS no. 7783-20-2), powder simple superphosphate[1] (CAS no. 8011-76-5), powder magnesium sulphate[1] (CAS no. 7487-88-9)
Where[1] CMC 1: Primary raw materials and mixtures.
[2] CMC 11: By-products.

Purpose

TARNOGRAN 21 is a universal fertiliser, intended primarily for maize and winter cereals, beetroots, leguminous plants and fruit trees.

Application Rules

The fertiliser may be applied to soils with neutral to acid pH. It should be mixed with the soil to a depth of 10-15 cm.

Fertiliser Doses

Recommended fertiliser doses in kg/ha

Cultivated plants	**Fertiliser dose** depending on the P and K content in the soil
Maize	500 – 800
Sugar and fodder beet	550 – 900
Winter cereals	300 – 500
Fruit trees and bushes	350 – 600
Potatoes	400 – 600
Spring cereals	350-550
Rapeseed	450-650

These are recommended doses. We recommend that farmers exchange information with their advisors in order to adjust the recommendations to their specific situation and avoid over-fertilisation.

Detailed information on the product and the hazards is provided in the safety data sheet.

Compound Fertilisers

BIG BAG **500 kg**

Bag **50 kg**

Tarnogran 25

NPK (Mg) 5-10-25 (2)

PFC 1(C)(I)(a)(ii):
Compound solid inorganic macronutrient fertiliser

Declared Macronutrients:

Total nitrogen (N) in ammonium form, % (m/m)	**5.0**
Total phosphorus pentoxide (P_2O_5), % (m/m)	**10.0**
Phosphorus pentoxide (P_2O_5) soluble in water, % (m/m)	6.0
Potassium oxide (K_2O) soluble in water, % (m/m)	**25.0**
Total magnesium oxide (MgO), % (m/m)	**2.0**
Magnesium oxide (MgO) soluble in water, % (m/m)	1.0

The fertiliser also contains undeclared macronutrients:
- **calcium** calculated as total calcium oxide (CaO) (approx. 10% (m/m)) and water-soluble calcium oxide (CaO) (approx. 4% (m/m))
- **sulphur** calculated as total sulphur trioxide (SO_3) (approx. 17% (m/m)) and water-soluble sulphur trioxide (SO_3) (approx. 15% (m/m))

Granulometry:
Granules. Sieved through a 5 mm mech sieve:
at least 95% (m/m).
Granules. Sieved through a 2 mm mech sieve:
not more than 10 % (m/m).

Components:
Potassium chloride[1] (CAS no. 7447-40-7), superphosphate poorly acidified[1] (custom semi-finished product), ammonium sulphate[2] (CAS no. 7783-20-2), powder simple superphosphate1 (CAS no. 8011-76-5), diammonium phosphate[1] (CAS no. 7783-28-0) and/or monoammonium phosphate[1] (CAS no. 7722- 76-1), powder magnesium sulphate[1] (CAS no. 7487-88-9)
Where[1] CMC 1: Primary raw materials and mixtures.
[2] CMC 11: By-products.

Purpose

TARNOGRAN 25 is a universal granular inorganic compound fertiliser for beetroots, maize, rapeseed, cereals, potatoes, grassland and all other plants with high potassium demand. It contains nutrients in a form easily absorbed by plants. The granulated form of the fertiliser facilitates even spreading and results in a systematic release of nutrients.

Application Rules

TARNOGRAN 25 should be applied pre-sowing both in spring and autumn. After spreading, it should be mixed with the soil to a depth of 10-15 cm. It can also be spread in rows, during crop sowing, at a distance of 10 cm from the plant. In the case of spreading in rows or after the prior application of natural fertiliser (manure, liquid manure), the fertiliser dose should be decreased by 30%.

Fertiliser Doses

Recommended fertiliser doses in kg/ha

Cultivated plants	**Fertiliser dose** depending on the P and K content in the soil
Beetroots	300 – 800
Maize	300 – 800
Winter rapeseed	300 – 500
Spring and winter cereals	250 – 450
Potatoes	250 – 750
Grassland	200 – 500
Leguminous plants	250 – 500

These are recommended doses. We recommend that farmers exchange information with their advisors in order to adjust the recommendations to their specific situation and avoid over-fertilisation.

Detailed information on the product and the hazards is provided in the safety data sheet.

Compound Fertilisers

BIG BAG **500 kg**

Bag **50 kg**

Tarnogran for cereals

NPK (Mg) 4-15-20 (2)

the fertiliser contains micronutrients (Cu, Mn, Zn)

PFC 1(C)(I)(a)(ii):
Compound solid inorganic macronutrient fertiliser with micronutrients

Declared Nutrients:

Total nitrogen (N) in ammonium form, % (m/m)	**4.0**
Total phosphorus pentoxide (P_2O_5), % (m/m)	**15.0**
Phosphorus pentoxide (P_2O_5) soluble in water, % (m/m)	10.0
Potassium oxide (K_2O) soluble in water, % (m/m)	**20.0**
Total magnesium oxide (MgO), % (m/m)	**2.0**
Magnesium oxide (MgO) soluble in water, % (m/m)	1.0
Total copper (Cu) as sulphate, % (m/m)*	**0.10**
Total manganese (Mn) as sulphate, % (m/m)*	**0.10**
Total zinc (Zn) as sulphate, % (m/m)*	**0.10**

*The above-mentioned micronutrients contained in the fertiliser are partially soluble in water, in variable amounts.

The fertiliser also contains undeclared macronutrients:
- **calcium** calculated as total calcium oxide (CaO) (approx. 12% (m/m)) and water-soluble calcium oxide (CaO) (approx. 5% (m/m))
- **sulphur** calculated as total sulphur trioxide (SO_3) (approx. 15% (m/m)) and water-soluble sulphur trioxide (SO_3) (approx. 13% (m/m))

Granulometry:
Granules. Sieved through a 5 mm mech sieve:
at least 95% (m/m).
Granules. Sieved through a 2 mm mech sieve:
not more than 10% (m/m).

Components:
Potassium chloride[1] (CAS no. 7447-40-7), superphosphate poorly acidified[1] (custom semi-finished product), monoammonium phosphate[1] (CAS no. 7722-76-1) and/or diammonium phosphate[1] (CAS no. 7783-28-0), powder simple superphosphate[1] (CAS no. 8011-76-5), ammonium sulphate[2] (CAS no. 7783-20-2), powder magnesium sulphate[1] (CAS no. 7487-88-9)
Where[1] CMC 1: Primary raw materials and mixtures.
[2] CMC 11: By-products.

Purpose

Tarnogran for cereals is a compound inorganic fertiliser for winter and spring cereals, as well as plants with high phosphorus and potassium demand.

Application Rules

Tarnogran for cereals should be applied pre-sowing, and mixed with the soil to a depth of 10-15 cm.

Fertiliser Doses

Recommended fertiliser doses in kg/ha

Cultivated plants	**Fertiliser dose** depending on the P and K content in the soil
Winter cereals	300 - 500
Spring cereals	250 - 450
Maize	350 - 750
Rapeseed	350 - 550
Leguminous plants	300 - 500
Legumes	250 - 450
Grassland	200 - 500

Use only when justified. Do not exceed the recommended dose.

These are recommended doses. We recommend that farmers exchange information with their advisors in order to adjust the recommendations to their specific situation and avoid over-fertilisation.

Detailed information on the product and the hazards is provided in the safety data sheet.

Compound Fertilisers

Compound Fertilisers

Superfosamon 10

NP 10-20.5

PFC 1(C)(I)(a)(ii):
Compound solid inorganic macronutrient fertiliser

Declared macronutrients:

Total nitrogen (N) in ammonium form, % (m/m)	**10.0**
Total phosphorus pentoxide (P_2O_5), % (m/m)	**20.5**
Phosphorus pentoxide (P_2O_5) soluble in water, % (m/m)	18.5
Phosphorus pentoxide (P_2O_5) soluble in neutral ammonium citrate solution, % (m/m)	20.0

The fertiliser also contains undeclared macronutrients:
- **calcium** as calcium oxide (CaO), total (approx. 14 % (m/m)) and calcium oxide (CaO) soluble in water, 8 % (m/m)
- **sulfur** as sulfur trioxide (SO_3), total (approx. 32 % (m/m)) and sulfur trioxide (SO_3) soluble in water, total (approx. 24 % (m/m))

Granulometry:
Granules. Sieving through a 5 mm mesh sieve:
at least 95% (m/m).
Granules. Sieving through a 2 mm mesh sieve:
no more than 10% (m/m).

Composition:
Powder simple superphosphate[1] (CAS No. 8011-76-5)
Ammonium sulphate[2] (CAS No. 7783-20-2),
Diammonium phosphate[1] (CAS No. 7783-28-0),
Monoammonium phosphate[1] (CAS No. 7722-76-1),
Where [1] CMC 1: Substances and mixtures, primary,
[2] CMC 11: By-products.

Application

SUPERFOSAMON 10 is a universal granulated mineral fertiliser designed for fertilising cereals, rape, thick-grained legumes, grasslands, vegetables, fruit trees and bushes, particularly on potassium-rich soils. The fertiliser contains nutrients provided in water soluble forms, easily assimilable by plants.

Application Rules

SUPERFOSAMON 10 can be applied in spring or autumn – before sowing or before planting seedlings for spring field treatments (harrowing, rototilling) so that it is blended with the soil to a depth of 15 cm. Depending on the plants grown, it may be necessary to provide a suitable potassium dose.
SUPERFOSAMON 10 can be mixed with granulated forms of potassium sulfate, potassium salts, and magnesium sulfate before application. The fertiliser can also be used for top dressing on grasslands and pastures, preferably when rainfall is subsequently predicted. For row application, reduce the fertiliser dose by 30%.

Recommended fertiliser doses in kg/ha

Cultivated plants	**Fertiliser dosage** depending on phosphorus content in the soil		
	high	average	low
Spring cereals	250	350	450
Rapeseed	300	400	500
Brewery-grade barley	250	350	450
Sweet corn	400	500	600
Climbing and dwarf bean	250	350	450
Pea	200	300	400
Asparagus	150	250	350
Grassland	300	400	500

After fertilising with manure, the fertiliser dosage can be reduced by 30%. The dosages provided are recommended rates. It is recommended that farmers exchange information with their advisers to adjust the recommended rates to their specific situation and avoid excessive fertilising.

Detailed information on the product and the hazards are provided in the safety data sheet.

Specialist Fertilisers

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WAP MAG with Micronutrients

CaMg 28-16 z B, Cu, Mo, Zn

BIG BAG **500 kg**

Bag **50 kg**

Declared Nutrients:

Total calcium (CaO), % (m/m)	**28.0**
Total magnesium (MgO), % (m/m)	**16.0**
Total sulphur trioxide (SO_3), not more than, %(m/m)	10.0
Total boron (B), at least, %(m/m)	**0.10**
Total copper (Cu), at least, %(m/m)	**0.10**
Total molybdenum (Mo), at least, %(m/m)	**0.012**
Total zinc (Zn), at least, %(m/m)	**0.10**

Purpose

Wap Mag with micronutrients is designed for use on mineral and organic soils with a highly acidic, acidic and slightly acidic pH in all agricultural crops on arable land and permanent grassland. Due to the high magnesium content, it should be primarily used on soils low and very low in magnesium. This fertiliser contains calcium, magnesium and sulphur, and micronutrients B, Cu, Zn, Mo, and therefore, it is also recommended for use in cultivation of vegetables, fruit plants and ornamental plants, particularly in acidic and slightly acidic soils. In orchards, the fertiliser is especially recommended for the cultivation of apple varieties susceptible to calcium deficiency and bitter pit.

Fertiliser Doses

Depending on the crop grown and the abundance of absorbable magnesium in the soil, the fertiliser is applied at doses of 20 to 50 kg MgO/ha, which corresponds to 130-350 kg of fertiliser per hectare.

Application Rules

For winter plants on arable lands, the fertiliser ought to be applied with conventional ploughing. It may be applied for spring plants or when planting after spring or winter ploughing. In other cases, it should be mixed with the soil up to a depth of 15 cm. In grassland, the fertiliser should be applied in accordance with the principles of soil fertilisation in spring before or at the beginning of vegetation, and after swathing or grazing. The fertiliser is to be applied evenly to the entire surface of the field in such a way as to exclude fertilising fields and crops not intended for it. No doses exceeding the recommended ones must be applied. In agriculture, the use of this fertiliser is recommended for pre-crops, as well as for plants with a very high or high sensitivity to acid soil reaction (wheat, barley, beetroots, maize). The maximum effect is achieved in the second year after its application. The best time to apply "Wap Mag with micronutrients" is in late summer, after cleaning up the pre-crop, covering it with soil when stubble or conventional ploughing. For use in cultivation of vegetables, fruit plants and ornamental plants, it is particularly recommended in acidic and slightly acidic soils.

The fertiliser can also be applied in spring, summer or autumn, provided there is 3-4 weeks to carry out the relevant cultivation. In addition, it is used to fertilise orchards and berry plantations during the fruiting period. After spreading, it should be mixed with the soil up to a depth of 15 – 30 cm.

Detailed information on the product and the hazards is provided in the safety data sheet.

WAP MAG

CaMg 28-16

BIG BAG **500 kg**

Bag **50 kg**

Declared Macronutrients:

Total calcium (CaO), % (m/m)	**28.0**
Total magnesium (MgO), % (m/m)	**16.0**
Total sulphur trioxide (SO_3), not more than, %(m/m)	10.0

Purpose

WAP MAG fertiliser is designed for use on mineral and organic soils with a highly acidic, acidic and slightly acidic pH in all agricultural crops on arable land and permanent grassland. Due to the high magnesium content, it should be primarily used on soils low and very low in magnesium.

Fertiliser Application Methods and Timing

For winter crops on arable lands, the fertiliser should be applied with conventional ploughing. In the case of spring plants, for winter or spring ploughing.

In other cases, it should be mixed with the soil up to a depth of 15 cm. In grassland, the fertiliser should be applied in accordance with the principles of soil fertilisation in spring before or at the beginning of vegetation, and after swathing or grazing. The fertiliser is to be applied evenly to the entire surface of the field in such a way as to exclude fertilising fields and crops not intended for it. No doses exceeding the recommended ones must be applied.

Fertiliser Dose

Depending on the crop grown and the abundance of absorbable magnesium in the soil, the fertiliser is applied at doses of 20 to 60 kg MgO/ha, which corresponds to 130-480 kg of fertiliser per hectare. The fertiliser may be applied separately or as a constituent of a mixture with other granular fertilisers prepared for the specific needs of the fertilised plant.

Detailed information on the product and the hazards is provided in the safety data sheet.

BIG BAG **500 kg**

Bag **25 kg**

Wigor S

(S) (90)

PFC 1(C)(i)(a)(i):
Simple solid inorganic macronutrient fertilizer

Declared Macronutrient:

Total sulphur (S) (elemental)	**90.0**

Granulometry:
Granules. Sieved through a 5 mm mech sieve:
at least 5% (m/m).
Granules. Sieved through a 2 mm mech sieve:
not more than 95% (m/m).

Components:
Sulphur[1] (CAS no. 7704-34-9), bentonite[1] (CAS no. 1302-78-9)
Where[1] CMC 1: Primary raw materials and mixtures.

Purpose

WIGOR S is intended for sulphur-loving plants such as rapeseed, pea, legumes, cruciferous vegetables, sugar and red beet, as well as cereals: wheat, barley and maize in soils with sulphur deficiency.

Application Rules

The fertiliser may be applied separately or as a constituent of a mixture with other granular fertilisers.

Application Methods

For winter plants on arable lands, the fertiliser should be applied with conventional ploughing, and in the case of spring plants, for winter or spring ploughing. In other cases, it should be mixed with the soil up to a depth of 15 cm. In legumes cultivation, the fertiliser should be applied according with the principles of fertilisation these crops in spring before or at the beginning of vegetation. The fertiliser is to be applied evenly to the entire surface of the field in such a way as to exclude fertilising fields and crops not intended for it. No doses exceeding the recommended ones must be applied.

Fertiliser Doses

Recommended fertiliser doses in kg/ha

Cultivated plants	Fertiliser dose
Winter rapeseed	20 - 40
Radish	35 - 40
Cruciferous vegetables	10 - 40
Onion plants	10 - 15
Wheat	15 - 20
Maize	15 - 20
Carrot	10 - 15
Barley	10 - 15
Pea	15 - 20
Beetroot	10 - 30
Tomatoes	10 - 30
Alfalfa	15 - 20
Bean	5 - 10

Detailed information on the product and the hazards is provided in the safety data sheet.

Specialist Fertilisers

Bag **25 kg**

Bag **10 kg**

Dolomite

Declared Macronutrients:

Total magnesium oxide (MgO) + total calcium oxide (CaO)	**min. 45.0**
Including: total magnesium oxide (MgO)	min. 15.0

Purpose

DOLOMITE (calcium magnesium carbonate) is intended for use with all soil types, particularly those with a highly acidic, acidic and slightly acidic pH, in all agricultural crops on arable land and permanent grassland. Due to the high magnesium content, it should be primarily used on soils low and very low in magnesium. The fertiliser may be applied separately or as a constituent of a mixture with other granular fertilisers. DOLOMITE has an de-acidifying effect and the presence of magnesium, which is essential for plants, increases yields and improves plant health.

Application Rules

It is recommended to mix Dolomite into the soil, at a depth of 15 – 20 cm. For winter plants on arable lands, Dolomite should be applied with conventional ploughing. It may be applied for spring plants or when planting after spring or winter ploughing. It is acceptable to apply Dolomite to grassland, by spreading on the surface of the field, but its effect will then be slowed down and such treatment should be carried out in autumn, after swathing or grazing.

Fertiliser Doses

Depending on the crop grown and the abundance of absorbable magnesium in the soil, the fertiliser is applied at following doses:

Soil types	Fertiliser dose (t/ha)
Very light soils	1 - 2
Light soils	2 - 3
Middle soils	3 - 4
Heavy soils	4 - 5

After mixing with soil, nutrients contained in the fertilizer will be released gradually during the vegetation period, without the risk of rapid washing out beyond the reach of the root system.

Detailed information on the product and the hazards is provided in the safety data sheet.

Specialist Fertilisers

Granulated Magnesium Sulphate

(MgS) (22-36)

PFC 1(C)(I)(a)(ii):
Compound solid inorganic macronutrient fertiliser

Declared Macronutrients:

Total magnesium oxide (MgO), % (m/m)	**22.0**
Magnesium oxide (MgO) soluble in water, % (m/m)	18.0
Sulphur trioxide (SO_3) soluble in water, % (m/m)	**36.0**

Granulometry:
Granules. Sieved through a 5 mm mech sieve:
at least 95% (m/m).
Granules. Sieved through a 2 mm mech sieve:
not more than 10% (m/m).

Components:
Powder magnesium sulphate[1] (CAS no. 7487-88-9)
Where[1] CMC 1: Primary raw materials and mixtures.

Purpose

GRANULATED MAGNESIUM SULPHATE is intended for regular fertilisation of all crops. Due to the content of easily absorbable forms of magnesium and sulphur, it can also be used for top dressing n cases of known magnesium and sulphur deficiencies.

Application Rules

The fertilizer should be mixed with the soil during spring and autumn crops. It can also be applied on the surface, preferably before expected rainfall.

Fertiliser Doses

Depending on the crop grown and the abundance of absorbable magnesium in the soil, the fertiliser is applied at rates of 80-200 kg/ha.

BIG BAG **500 kg**

Bag **25 kg**

Recommended fertiliser doses in kg/ha

Cultivated plants	Fertiliser dose
Rapeseed	180 – 200
Maize	160 – 190
Beetroots	170 – 190
Potatoes	130 – 170
Legumes	150 – 180
Spring cereals	100 – 130
Grassland	80 – 100
Fruit trees and bushes	100 – 120
Cabbage, Brussels sprouts and red cabbage	180 – 200
Chinese cabbage, cauliflower, tomato, pea, broccoli	170 – 190
Leek, red beet	170 – 190
Green bean, carrot	160 – 180
Cucumber	150 – 180
Celery and celeriac	150 – 170
Kohlrabi, endive, asparagus, radish, onion, parsley	140 – 160

These are recommended doses. We recommend that farmers exchange information with their advisors in order to adjust the recommendations to their specific situation and avoid over-fertilisation.

Use only when justified. Do not exceed the recommended dose.

Detailed information on the product and the hazards is provided in the safety data sheet.

Granulated Magnesium sulphate with Micronutrients

(MgS) (23-32)

the fertiliser contains micronutrients (B), (Zn)

PFC 1(C)(I)(a)(ii):
Compound solid inorganic macronutrient fertiliser with micronutrients

Declared Nutrients:

Total magnesium oxide (MgO), % (m/m)	**23.0**
Magnesium oxide (MgO) soluble in water, % (m/m)	16.0
Sulphur trioxide (SO_3) soluble in water, % (m/m)	**32.0**
Total boron (B) as sodium salt, % (m/m)*	**0.10**
Total zinc (Zn) as sulphate, % (m/m)*	**0.02**

*The above-mentioned micronutrients contained in the fertiliser are partially soluble in water, in variable amounts.

Granulometry:
Granules. Sieved through a 5 mm mech sieve:
at least 95% (m/m).
Granules. Sieved through a 2 mm mech sieve:
not more than 10% (m/m).

Components:
Powder magnesium sulphate[1] (CAS no. 7487-88-9), magnesite[1]
Where[1] CMC 1: Primary raw materials and mixtures.

Purpose

GRANULATED MAGNESIUM SULPHATE with micronutrients is intended for fertilising all crop types. Due to the content of easily absorbed forms of magnesium and sulphur, it can also be used for top dressing.

Application Rules

The fertilizer should be mixed with the soil during spring and autumn crops. It can also be applied on the surface, preferably before expected rainfall.

BIG BAG **500 kg**

Bag **25 kg**

Fertiliser Doses

Depending on the crop grown and the abundance of absorbable magnesium in the soil, the fertiliser is applied at doses of 80-200 kg/ha.
Recommended fertiliser doses in kg/ha

Cultivated plants	Fertiliser dose
Rapeseed	180 – 200
Maize	160 – 190
Beetroots	170 – 190
Potatoes	130 – 170
Legumes	150 – 180
Spring cereals	100 – 130
Grassland	80 – 100
Fruit trees and bushes	100 – 120
Cabbage, Brussels sprouts and red cabbage	180 – 200
Chinese cabbage, cauliflower, tomato, pea, broccoli	170 – 190
Leek, red beet	170 – 190
Green bean, carrot	160 – 180
Cucumber	150 – 180
Celery and celeriac	150 – 170
Kohlrabi, endive, asparagus, radish, onion, parsley	140 – 160

These are recommended doses. We recommend that farmers exchange information with their advisors in order to adjust the recommendations to their specific situation and avoid over-fertilisation.

Use only when justified. Do not exceed the recommended dose.

Detailed information on the product and the hazards is provided in the safety data sheet.

Pro-Siarka S 800 SC

(S) (55)

PFC 1(C)(I)(b)(i):
Simple liquid inorganic macronutrient fertiliser.

Declared macronutrient:

Total sulphur (S) (elemental)	**55.0**

Components:
Sulphur[1] (CAS no. 7704-34-9)
Where[1] CMC 1: Primary raw materials and mixtures.

Purpose

Pro-Siarka S 800 SC is made of finely fragmented elemental sulphur, which enables its effective utilisation, even above 75%. Pro-Siarka S 800 SC is intended mainly for sulphur-deficient soils. On arable land the fertiliser is recommended for fertilisation of sulphur-loving plants such as rapeseed, legumes and sugar beet. Beneficial yield-enhancing effects are also obtained after the application of the fertilizer on cereals and maize. The fertilizer can also be used on permanent grasslands as well as orchards and all vegetable crops.

Application Rules

Working liquid preparation and fertiliser application. The working liquid solution should be prepared just before the fertiliser application.

Before preparing the working liquid, shake the contents of the container and precisely measure out the required amount of fertiliser. Dissolve the measured out dose of fertiliser in water in the tank of the spraying machine and mix. To do this, pour the fertiliser into the tank of the spraying machine partially filled with water. Then fill the tank with water to obtain the required concentration. Rinse the empty packaging three times with water and pour the washings to the tank of the spraying machine with the working liquid. The fertiliser is applied as medium or fine-droplet sprays by means of spraying machines used in plant protection. Perform the spraying on cloudy days in the evening or in the morning. The fertiliser should be applied evenly to the entire surface of the field in such a way as to exclude fertilising fields and crops not intended for it. When used in the recommended concentration, it does not lead to corrosion of the working elements of the spraying machine.

Container **5 l**

Container **20 l**

Container **600 l**

Container **1000 l**

Additionally, the following rules must be observed:

1. Do not exceed the recommended concentration of the working liquid.
2. Do not spray plants during high solar exposure and high temperatures. The optimum application time for the fertiliser is the morning (once the dew disappears) and late afternoon.
3. It is not recommended that the fertiliser be used just before rainfall or during rainfall.
4. Do not fertilise plants that are physically or mechanically damaged and invaded by diseases and pests.
5. Do not fertilise plants during flowering.

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Fertiliser Doses

Dosage and application time of the fertiliser.
Depending on the plant species, the following doses are applied:

Cultivated plant	Dosage l/ha	Recommended amount of water l/ha	Fertiliser application time or plant development stage	Plant development stage according to the BBCH scale
Winter rape	5	300 - 500	in the autumn after plant emergence	10 - 29
	8	300 - 500	in early spring	30 - 50
	6	300 - 500	prior to flowering	50 - 57
barley, wheat, rye	5	300 - 500	after emergences at the beginning of tillering	10 - 19
brewing barley, triticale	5	300 - 500	the end of tillering, shooting	23 - 30
oat	5	300 - 500	by the end of the heading stage	32 - 59
maize for grain and silage	10	700 - 1000	fully developed 2-6 leaves	19 - 24
potato	5	300 - 500	several times, beginning from the leaf development stage to the end of flowering	21 - 70
sugar beet	5	300 - 500	during leaf development	20 - 26
	5	300 - 500	3-4 weeks after closing of rows	31 - 33
field pea, pea	5	300 - 500	when the plant has 1 to 4 fully developed leaves	11 - 19
lupine, sunflower	5	300 - 500	by flowering	30 - 59
grassland	20	3000 - 4000	before the start of vegetation	-
hop	5	800 - 1000	after guiding hop onto wires	-
	5	1500 - 2000	after hop reaches the mesh netting	-
	5	2500 - 3000	during flowering and later	-

Detailed information on the product and the hazards is provided in the safety data sheet.

Specialist Fertilisers

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January 2023