

CHEMICAL PLANTS "Siarkopol" TARNOBRZEG Ltd

Packaged Sulphur

Product Catalogue



 zchsiarkopol.pl



The elemental Sulphur (S) is a nonmetal that is a solid at ambient temperature.

Sulphur melts at a temperature above 114.5°C and boils at 444.6°C. Sulphur is used as a raw material in the organic and inorganic chemical industry, including for the production of sulfuric acid, mineral fertilizers, pesticides, explosives, rubber vulcanization, and for disinfecting tools and premises for agricultural production.

CHEMICAL PLANTS "Siarkopol" TARNOBZEG Ltd offers products based on elemental Sulphur for direct use in industry or agriculture. It is also possible to use the offered elemental Sulphur as a raw material for industrial production, subject to special formal, legal and quality requirements. Confirmation of compliance with these requirements remains the responsibility of those using Sulphur. The basic raw material is high-purity liquid Sulphur (over 99.95% Sulphur).

Products for industrial use:

- **granulated Sulphur**
- **ground Sulphur, standard**
- **oiled Sulphur**

Granulated, ground and oiled Sulphur is mainly used in the chemical industry (e.g. for the production of sulfuric acid, carbon disulfide, thiosulfates and sulphates), in the synthetic fibre industry, for the production of dyes, pesticides and paper, rubber, cellulose, match, fertilizer and food industries. The indicated uses of the product are for information purposes only and do not replace the permits or approvals for use required by separate regulations.

Products for agricultural use:

- **Wigor S and Wigor S Pro - granulated Sulphur with bentonite**
- **Wigor S with boron - granulated sulphur with bentonite and boron**
- **Pro Siarka S 800 SC - sulphur suspension fertilizer**

Sulphur is one of 20 elements necessary for the proper growth of plants, including crops. Sulphur takes part in a number of basic (metabolic) processes occurring in the plant, e.g. nitrate reduction, reduction of atmospheric nitrogen, protein synthesis, uptake and reduction of sulphates. Elemental Sulphur contained in the above-mentioned fertilizers is gradually transformed in the soil into the sulphate form, which is taken up by plants. The gradual release of Sulphur helps reduce losses that occur during direct application of sulphate, which is washed out of the soil and contaminates groundwater and surface water. The principles of using the above-mentioned fertilizers are specified in the Application Instructions developed by specialist agricultural institutes.

Other products for agrotechnical use:

- **wettable Sulphur**, produced from ground Sulphur enriched with additives changing the surface properties of Sulphur, used to enrich slurry with Sulphur,
- **ground Sulphur** for agrotechnical purposes, produced from granulated Sulphur, containing at least 99.60% of Sulphur, with a grain size of less than 0.063 mm (sieving on a sieve with a square mesh of 0.063 mm not more than 2.8%).

Granulated Sulphur

Form: Yellow or grey-yellow granules.

Properties:

- Soluble in carbon disulphide and toluene,
- Slightly soluble in ethyl alcohol, benzene and diethyl ether,
- Insoluble in water,

Melting temperature	112,8 °C
Boiling temperature	444,6 °C
Bulk density	1200-1350 kg/m ³

Quality parameters:

Sulphur content, not less than	99,95%
Ash content, not more than	0,04%
Acids, expressed as H ₂ SO ₄ , not more than	0,007%
Bitumen	0,015%
H ₂ O content, not more than	0,2%

Grainning

Grain class 0,5 - 3,2 mm, not less than	90%
0,5 mm grain size and grain class 3,2-10 mm, not more than	10%

Application

In the fertilizer industry, in the chemical industry, for the production of sulphuric acid, carbon disulphide, thiosulphates and sulphates; in the synthetic fibre industry, for the manufacture of dyes, plant protection products, paper and others.

Transport

- land - in bulk in special wagons; in paper or foil sacks (25 [kg] on pallets covered with shrink film) or big-bag type, rail or truck transport on pallets,
- sea - in bulk

Granulated sulphur is not subject to the ADR/RID regulations under special Provision No 242.

Powder Sulphur

Form: Light yellow powder.

Properties:

- Soluble in carbon disulphide and toluene,
- Slightly soluble in ethyl alcohol, benzene and diethyl ether,
- Insoluble in water,

Solubility in CS ₂	95,5 - 96,5%
Melting temperature	112,8 °C
Boiling temperature	444,6 °C
Bulk density	550-750 kg/m ³

Quality parameters:

Sulphur content, not less than	99,85%
Ash content, not more than	0,1%
Acids, expressed as H ₂ SO ₄ , not more than	0,01%
Bitumen	0,02%
Content h ₂ o not more than	0,2%

Grainning

Sieving on a 0,063 mm square mesh side sieve, not more than	0,3
Sieving in a sieve with a square mesh side of 0,15 mm, not more than	0,0

Application

In the rubber, cellulose, fertilizer, matchmaking, pharmaceutical and petroleum industries, for the production of plant protection products, artificial fibres, dyes.

Transport

- land - in 25 [kg] paper sacks or big-bags by rail or truck transport on pallets,
- sea - in containers, in 25 [kg] paper sacks on pallets covered with shrink film or in big-bags

Ground sulphur is not subject to RID/ADR regulations in accordance with classification certificate issued by the Institute of Organic Industry in Warsaw.



Oiled Sulphur 1%

Form: Light yellow powder.

Properties:

Melting temperature	90 – 100 °C
Boiling temperature	290 °C
Bulk density	600 – 800 kg/m ³

Quality parameters:

Sulphur content, not less than	98%
Mineral oil content	1,0 ± 0,3%
Ash content, not more than	0,1%
Acids content, expressed as H ₂ SO ₄ , not more than	0,01%
Volatiles content, not more than	0,2%

Graining

Sieving on a 0,063 mm square mesh side sieve, not more than	0,6
Sieving on a 0,125 mm square mesh side sieve, not more than	0,2
Sieving in a sieve with a square mesh side of 0,15 mm, not more than	0,0

Application

In the chemical industry, e.g. for the production and processing of rubber.

Transport

- land - in big-bag packs on pallets or in three-layer paper sacks of 25 [kg] each on pallets covered with heat-shrink film/ stretched, rail or truck transport,
- sea - in containers, in three-layer paper sacks 25 [kg] on pallets covered with shrink film or in big-bags

Milled oiled sulphur is not subject to RID/ADR regulations in accordance with classification certificate issued by the Institute of Organic Industry in Warsaw.

Wigor S

(S) (90)

PFC 1(C)(I)(a)(i):

Simple solid inorganic macronutrient fertiliser

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:

Sulphur¹ (CAS no. 7704-34-9), bentonite¹ (CAS no. 1302-78-9)
Where¹ 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.



BIG BAG 500 kg

Bag 25 kg

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.

BIG BAG 500 kg

Bag 25 kg

Wigor S with boron

(s) (77)

fertiliser containing micro-nutrient (B)

PFC 1(C)(I)(a)(i):

Simple solid inorganic macronutrient fertiliser with micronutrient

Declared macronutrients:

Total sulphur (S) (elementary), % (m/m) **77.0**

Total boron (B), in the form of sodium salt *, % (m/m) **2.0**

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

Granulometry:

Granules. Sieved through a 5 mm mesh sieve: at least 95 % (m/m).

Granules. Sieved through a 2 mm mesh sieve: not more than 10 % (m/m).

Components:

Sulphur¹ (no CAS 7704-34-9), bentonite¹ (no CAS 1302-78-9), tetraboransodipyridine¹ (no CAS 12179-04-3)

Where¹ CMC 1: Primary raw materials and mixtures.

Purpose

Wigor S with boron, or granular sulphur with bentonite and boron, contains 77% of sulphur and 2% of boron. The fertiliser is designed for fertilising soils deficient in sulphur and boron. The fertiliser can be used to fertilise with sulphur and boron all types of soils for agricultural, orchard, vegetable, ornamental and grassland crops. In horticulture, it is a particularly recommended fertiliser for rhododendrons, blueberries, cranberries, heather and other acid-loving plants.

Rules of Application

PRE-SOWING APPLICATION

Under winter crops on arable land, fertiliser should be applied under seed plowing. For spring crops under winter plowing, possibly also under spring plowing.

POST-HARVEST APPLICATION

Fertiliser should be applied at a distance of several cm from the row of growing plants or sown seeds. In the case of cultivation of blueberries (high, low, cowberry), apply the fertiliser in early spring, at the stage of swelling - bud bursting, on the surface of strips along the row of plants with a width of 60 - 80 cm. In the cultivation of perennial legumes, the fertiliser should be applied according to the rules of fertilisation of these crops, in the spring, before the start of vegetation.



Approximate fertiliser doses in kg/ha

Plant	Fertiliser dose
Rape, broccoli, horseradish, kale, cauliflower, kohlrabi, cabbages (white, red, savoy), radish, turnip, onion, garlic, leek, chives	30 - 50
Legumes (broad beans, peas, beans), perennial legumes, sugar and fodder beets, swede, beet, carrot, tomato	20 - 30
Cereals, grasses, pastures, meadows, corn, potatoes	15 - 20
Acid-loving ornamental plants: Rhododendron, azalea, heather, heath, larch, pieris, golteria, shrub, kalmia, enkianthus, juniper, cluster	20 - 30
Acid-loving orchard plants: high and lowbush blueberries, cranberries large-fruited cranberry, blueberry lingonberry, sea buckthorn bilberry	30 - 50

The product dosages given are recommendations. We recommend that farmers exchange information with their advisors to adjust the recommendations to their specific situation and avoid over-fertilisation.

Wigor S Pro

Ministry of Agriculture and Rural Development permit no. 174/06 following the amendment of decision no. 174a/08

Properties:

Total sulphur (S), % (m/m) min. 80.0

Bentonite contained in the fertiliser, due to its properties of swelling on contact with water, causes the sulphur to break down, resulting in faster oxidation by microorganisms into a sulphate form that can be assimilated by plants.

Purpose

Wigor S Pro is intended for sulphur-loving plants such as pea, legumes, cruciferous vegetables, sugar and red beet, onion plants, radish, tomatoes, pumpkin, bean, cucumber, pepper, potatoes. It can also be used to acidify the soil – before establishing the plantation or planting. It also gives good results on alkaline and neutral soils.

Wigor S Pro

- has a direct effect on crop yield increases – sulphur increases the efficiency and effectiveness of nitrogen fertilisation (through better uptake and utilisation of nitrogen).
- improves yield quality:
 - reduced nitrate content in vegetable plants;
 - increased starch content in potato tubers and saccharose in sugar beetroots;
 - increases the protein content in seeds;
 - improves the taste of plants such as onions, garlic, leek and legumes.
- improves carbohydrate metabolism – which indirectly induces an increase in the tolerance of plants to abiotic stresses (too low and high temperatures, water shortage).



Bag 5 kg

Application rules

The fertiliser should be spread evenly over the entire area and then mixed into the soil to a depth of up to 15 cm. If the fertiliser cannot be applied before the plantation is established, it should be applied at a distance of 5–10 cm from the row of growing plants or sown seeds – preferably before or after the vegetation starts (counting the area of fertiliser application based on the width and length of the plant row). It should be mixed into the soil after application.

Fertiliser dosage

Recommended fertiliser doses in g/m²

Plant	Dosage
Broccoli, horseradish, kale, cauliflower, kohlrabi, cabbages (white, red, Italian), white radish, radish, turnip, onion, garlic, leek, chives	3 - 5
Legumes (broad beans, peas, beans), perennial legumes, sugar and fodder beets, swede turnip, red beet, carrot, tomatoes	2 - 3
grasses, pastures, meadows, potatoes	1.5 - 2



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
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Components:

Sulphur¹ (CAS no. 7704-34-9)
Where¹ 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 fertiliser on cereals and maize. The fertiliser 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.

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.



Packaged Sulphur

Agricultural Fertilisers

Simple superphosphate granulated

Compound Fertilisers

Potafoska 12

Potafoska with magnesium

Tarnogran

Tarnogran K

Tarnogran R with boron

Tarnogran 21

Tarnogran 25

Tarnogran for cereals

Superfosamon 10

Specialist Fertilisers

Dolomite

WAP MAG with micronutrients

WAP MAG

Wigor S

Wigor S with boron

Magnesium sulphate

Magnesium sulphate with micronutrients

Pro-Siarka S 800 SC



rolniczenawozy.com



Horticultural Fertilisers

Fertilisers for Orchard

Ogród 2001 universal
Dolomite
Ogród 2001 for strawberries and raspberries
Wap Mag with micronutrients
Bontar
Bontar Max

Fertilisers for Gardens

Simple superphosphate
Potassium sulphate granulated
Potassium salt
Granulated urea
Ogród 2001 for tomatoes and peppers
Ogród 2001 for vines
Ogród 2001 against needle browning
Ogród 2001 for conifers
Ogród 2001 for thuyas and other conifers **NEW**
Ogród 2001 lawn max
Ogród 2001 for boxwoods and ornamental hedges **NEW**
Ogród 2001 for lawns
Ogród 2001 anti-moss
Ogród 2001 for geraniums, surfinias and other balcony flowers **NEW**
Ogród 2001 for garden flowers
Ogród 2001 for magnolia **NEW**
Ogród 2001 for rhododendrons and hydrangeas **NEW**
Ogród 2001 for roses
Wigor S Pro
Ogród 2001 for acid loving plants
Ogród 2001 for blueberries and other acid loving plants **NEW**



Autumn Fertilisers

Ogród 2001 autumn universal
Ogród 2001 for autumn lawns
Ogród 2001 for autumn conifers
Ogród 2001 autumn for acid loving plants **NEW**

ogrod2001.pl

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