



SICO-COMBISULPHATE™

14% K₂O + 6% MgO + 17% CaO + 48% SO₃

New granular 2-4 mm sulphate fertiliser for better crops

Low chloride - Suitable for organic agriculture

1/ PRODUCT DESCRIPTION

SICO-COMBISULPHATE™ is a new naturally occurring mineral fertiliser containing the sulphates of potassium, magnesium and calcium. It is a complex crystal granular product, which has been discovered in potash mines at a depth of 1300 metres in potash mines in the UK and in a few other places in the world.

SICO-COMBISULPHATE™ has these minimum contents of:

- Sulphur: 48% SO₃ as sulphate
- Potassium: 14% K₂O as from potassium sulphate
- Magnesium: 6% MgO as from magnesium sulphate
- Calcium: 17% CaO as from calcium sulphate

2/ ADVANTAGES

- Concentrated sulphur source for low application rates
- Readily available sulphur plus potassium, magnesium and calcium
- Naturally occurring product

Nutrients are fully available to plants.

Extensive trial work has confirmed that the principal nutrients of sulphate, potash and magnesium in SICO-COMBISULPHATE™ are fully available to plants, performing in trials with the same plant-efficiency as standard sources of potassium and magnesium sulphate.

3/ SOME APPLICATION ADVICE

Natural, sustainable, dependable

Available in its natural form, SICO-COMBISULPHATE™ has a low carbon footprint. It delivers dependable high value, for low environmental impact.

Unlike blended or compound fertiliser, SICO-COMBISULPHATE™ is available in its natural state. It is mined, crushed, screened and bagged, involving no chemical separation or other industrial processes.

It is therefore an ideal natural source for all crops, especially brassicas, cereals, pulses, field vegetables, clover-rich grassland leys and silage crops. The low content of the crop nutrient chloride makes it ideal for use on chloridesensitive crops.

The natural process by which SICO-COMBISULPHATE™ is produced makes it a low carbon footprint fertiliser. This helps growers achieve carbon targets demanded by retailers and some food processors.

There's an estimated one billion tonnes available, mined in Europe. As global demand for sulphate fertilisers increases, **this provides farmers throughout Europe with a dependable source**, rather than a by-product material.





SICO-COMBISULPHATE calculator

Use the chart below to decide how much you need, and how much potash and magnesium your application will provide.

	Risk of deficiency	Advised rate (kg/ha)		Other nutrients applied (kg/ha)		Notes*
		SO3	SICO-COMBISULPHATE™	K2O	MgO	
Cereals	higher	50	100	14	6	Apply in early spring before the start of stem extension.
	lower	25	50	7.5	3	
Oilseed rape	higher	75	150	21	9	Apply in early spring. Spring crops may be less susceptible to deficiency.
	lower	50	100	14	6	
Peas (for dried, vining and fresh markets)		25	50	7.5	3	Apply where soil is sandy, shallow or medium textured and contains little organic matter
Brussels sprouts, cabbage, cauliflowers, calabrese		50	100	14	6	Apply where sulphur content of soils is low, e.g. light soils following wet winters where there is no history of organic manures application.
Grassland		40	100	11.2	4.8	Apply at the start of growth before each cut. May not be required before first cut on medium/heavy soils.

Source: Defra, UK Fertiliser Manual (RB209), 8th edition, June 2010, ISBN 978-0-11-243286-9

* Generally applications should be made where a deficiency has been recognised or is expected. This can be assessed through tissue analysis, crop observation or whether in a high-risk area. Refer to RB209 for further details.

4/ ORGANIC FERTILISER

SICO-COMBISULPHATE™ is available as a 2-4 mm granular fertiliser product, which can be applied as a straight fertiliser or can be used in blends.

SICO-COMBISULPHATE™ is a compacted low chloride fertiliser, and being a natural product with no chemical processing makes it suitable as an organic source of nutrients. Is authorised for use in organic farming, according to the EC Regulations 834/2007 and 889/2008. Is certified for use in organic farming by the U.K. Soil Association.

5/ PACKING

25 or 40 or 50 kg net wpp + pe bags, 27.50 MT/20' container or 1300 kg big bags, 26 MT/20' container

6/ EXTRA TECHNICAL SALES PROMOTION LITERATURE

In case of further interest we will gladly email following notices:

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|--------------------------------------|--|
| 1) The need for sulphate fertiliser. | 5) How SICO-COMBISULPHATE™ performs and spreads |
| 2) Livestock sulphur requirements. | 6) Getting the best from SICO-COMBISULPHATE™. |
| 3) Sulphur in soil and in the plant. | 7) Natural, sustainable, dependable, organic fertiliser. |
| 4) Introducing SICO-COMBISULPHATE | 8) MSDS |



**PRODUCT INFO
& DATASHEET**



Date: November 2012

PRODUCT SPECIFICATION & CERTIFICATE OF ANALYSIS
SICO®- COMBISULPHATE™

PRODUCT	GRADE
SICO®- COMBISULPHATE™	Granular

Chemical analysis	Typical result	Guaranteed
Water soluble Sulphur (as SO ₃)	50.9%	48.0% minimum
Water soluble Potassium (as K ₂ O)	14.8%	14.0% minimum
Water soluble Magnesium (as MgO)	6.5%	6.0% minimum
Water soluble Calcium (as CaO)	17.9%	17.0% minimum
Also containing valuable micro-nutrients		
Chloride (Cl ⁻)		3.0% maximum
Moisture as H ₂ O		1.0% maximum

Particle size distribution mesh size (mm)	Typical retained range (%)
+5.60	1 maximum
+4.00	5 - 18
+2.80	50 - 80
+2.36	75 - 95
+2.00	91 - 99
+1.18	99 minimum

Reagent addition	
Coating oils	2000 – 3000 ppm

Physical and chemical properties	
Bulk density	1.6 g/cm ³
pH	Neutral

Trace elements	Typical (ppm)
Arsenic (As)	<0.1
Cadmium (Cd)	<0.1
Chromium (Cr)	6.4
Copper (Cu)	2.0
Mercury (Hg)	<0.2
Nickel (Ni)	5.1
Manganese (Mn)	3.8
Iron (Fe)	100
Lead (Pb)	0.5
Zinc (Zn)	3.3
Vanadium (V)	3.9
Boron (B)	300

Trace element contents are updated periodically

All chemical analyses according to EC standards – EC Tolerances are applicable.

Any information in this publication is believed to be accurate and is given in good faith, but is for the customer to satisfy itself of the suitability for its own particular purpose.
No representation, warranty or guarantee is made to its accuracy, reliability or completeness.

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