S K Mg Ca

↓ 48% SO_3 (19.2% S)

↓ 14% K_2O (11.6% K)

↓ 6% MgO (3.6% Mg)

↓ 17% CaO (12.2% Ca)

Mined in the UK, ICL is the first – and only – producer in the world to mine polyhalite, marketed as Polysulphate.

Poly S K Mg Ca® sulphate

info.polysulphate@icl-group.com
Twitter.com/Polysulphate
YouTube.com/c/Polysulphate-fertilizer
Facebook.com/Polysulphate

www.polysulphate.com

The above are general rates, for specific recommendations or more information consult www.polysulphate.com/contact.php for your contact in your region.

Fertilizing Wheat and Barley

with Polysulphate

ICL Fertilizers
Where needs take us

Poly S K Mg Ca® sulphate

Main features of Polysulphate fertilizer

- Ideal sulphur fertilizer with 48% SO_3 and additional benefit of potassium (K), magnesium (Mg) and calcium (Ca), all in sulphate form.
- Reduced risk of sulphate loss through leaching due to prolonged nutrient release pattern.
- Fully soluble, with all nutrients available for plant uptake during the growth period.
- Excellent spreading characteristics; spreads evenly and accurately in the field up to 36 m.
- Low chloride, very low salinity index, neutral pH, no acidifying effect.
- Natural mined mineral (polyhalite) approved for organic agriculture.
- UK produced fertilizer with a low carbon footprint.

Functions of S, K, Mg and Ca in cereal crops

- Sulphur is an essential constituent of proteins: it is required for the synthesis of three of the amino acids which make up true proteins.
- Potassium secures yield and quality, transport of sugars, stomatal control and is a co-factor of many enzymes. It reduces susceptibility to plant diseases and impact of drought and is essential for efficient use of nitrogen.
- Magnesium is fundamental for photosynthesis, being a central part of chlorophyll molecule, and is key to grain filling.
- Calcium for strong and healthy crops; it is a major building block in cell walls and reduces susceptibility to diseases.

Sulphur main dressing - guide recommendations

Nitrogen rate	Sulphur recommendation guide	
kg N/ha	kg SO_3/ha	kg S/ha
100	25	10
150	38	15
200	50	20
250	63	25

Nutrient offtake (removal) by winter and spring wheat and barley

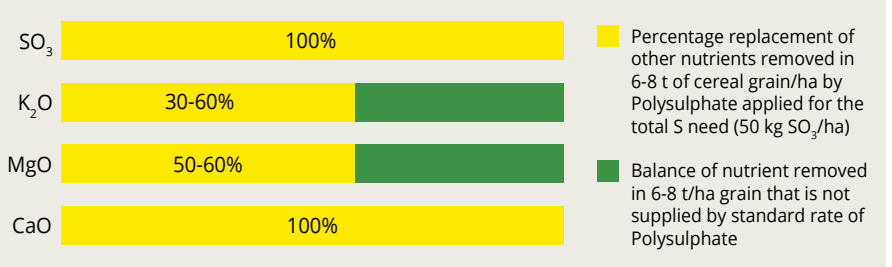
Nutrient	Offtakes (kg/t)			Offtakes (kg/ha)					
	Wheat and barley (kg/t)			Winter cereals (kg/ha)			Spring cereals (kg/ha)		
	grain	straw		grain 8 t/ha	straw 4 t/ha	total	grain 6 t/ha	straw 3 t/ha	total
		winter	spring						
K_2O	5.6	9.5	12.5	45	38	83	34	38	72
K	4.6	7.9	10.4	37	32	69	28	32	60
MgO	2.0	1.2	1.3	16	5	21	12	4	16
Mg	1.2	0.7	0.8	10	3	13	8	2	10
CaO	0.6	1.9	1.9	5	8	13	4	6	10
Ca	0.4	1.4	1.4	4	6	10	3	4	7

Sources: UK Fertilizer Manual, PDA and UNIFA

Practical guidelines for fertilizing cereals with Polysulphate

- One Polysulphate application will supply all the sulphate needed by cereals.
- Polysulphate can be applied as a straight or included in a blend as part of a tailored fertilizer program.
- Sulphur is needed to balance the nitrogen applied so that complete proteins can be produced. Protein content is an important aspect of grain quality.
- 100 kg/ha Polysulphate is generally a suitable dressing for cereals, supplying all of the sulphur and calcium needed, and a large proportion of the potash and magnesium removed in the grain at harvest.
- Ensure sufficient potash is applied if straw is removed from the field.
- Apply Polysulphate in early spring, as growth starts in winter cereals – usually at the early tillering stage.
- For spring cereals incorporate Polysulphate into the seedbed at sowing.

Nutrients supplied by Polysulphate at the recommended dose (100 kg/ha) to cereal crops at 6-8 t/ha grain yield



Expected benefits

- Higher yields
- Better quality of grain proteins
- Improved baking, malting and feed quality
- Increased nitrogen use efficiency