Quality, Consistency & Support

TECHNICAL INFORMATION SHEET:
ZINC SULPHATE SOLUTION 6.5%—YEAST FOOD

PRODUCT NAME:
ZINC SULPHATE 6.5%

PRODUCT CODE:
ZINSUL6.5

COMMODITY CODE:
28332920

PACKAGING:
5 AND 25 KG

Description

Zinc Sulphate solution is a simple source of zinc for where the nutrient is lacking. Zinc is an essential growth factor for many yeast which is often low in wort.

Benefits

- Improved yeast growth
- Faster Fermentations
- Reduction of sulphury characteristics
- Concentrated product—economical in use

Guidelines for use

- In case of contact with skin and eyes wash immediately with plenty of water
- Wash away spillages with plenty of water
- Read the Safety Data Sheet prior to use

TECHNICAL SUPPORT
tel: +44 (0) 115 978 5494 | e: techsupport@murphyandson.co.uk

REGULATORY COMPLIANCE INFORMATION
Refer to the **Product Specification Sheet** or contact us on
tel: +44 (0) 115 978 5494 | e: compliance@murphyandson.co.uk

HEALTH & SAFETY INFORMATION
Refer to the **Safety Data Sheet (SDS)**

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Registered in England No. 106442
VAT No. 196 8782 88

bsi. ISO 9001 Quality Management

Principle

A healthy yeast requires many nutrients to sustain its growth. Zinc acts as a metal ion co-factor, catalysing several enzymic reactions that would otherwise not take place or at a very slow rate. An example is alcohol dehydrogenase that yeast uses to manufacture alcohol and CO_2 under fermentation conditions.

Deficiencies can cause the following symptoms:

Long lag phase

High pH

Sticking fermentations

Poor finings

Densky et al. (1966) showed that worts contain from 0.05 - 0.10 ppm (mg/litre) Zn and noted growth stimulation if these worts were supplemented with Zn to a level of 0.5 ppm.

Frey et al (1967) found from 0.04 to 0.07 ppm of Zinc in worts and obtained stimulation of both fermentation and growth at 0.5 ppm. The study also showed that Zinc is not toxic to yeast at the 5 ppm level. (Yeast Technology, Reed & Peppler)

Zinc Sulphate can help reduce sulphury characteristics of beers by reacting with Hydrogen Sulphide produced during the fermentation to precipitate insoluble Zinc Sulphide.

Application and rates of use

Zinc Sulphate solution can be added to the copper during the boil or may be mixed with a small volume of wort and added to the fermenter.

Rates can vary depending on the specific yeast strain used and the composition in the grist. Zinc will typically be added within a range of 0.15 to 0.4 mls per hectolitre of Zinc Sulphate solution 6.5%. (Equivalent to 0.1 to 0.25 mg/litre as Zn^{2+})

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Storage and shelf life

- Store in dry, cool conditions away from direct sunlight
- Keep in original container
- Keep containers sealed when not in use
- The shelf life at the recommended storage temperature is at least twelve months from the date of manufacture

PRODUCT	ZINC SULPHATE SOLUTION 6.5%	**PRODUCT CODE**	ZINSULS6.5
ISSUE No.	2	**DATE**	4/9/18
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