

# ZINC SULPHATE POWDER TECHNICAL DATA SHEET

# **Description**

Zinc Sulphate Heptahydrate powder is a simple source of zinc, essential for yeast growth and alcoholic fermentation. Zinc is a crucial nutrient often deficient in wort.

## **Benefits**

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

# **Principle**

A healthy yeast requires many nutrients to sustain its growth. Zinc acts as a metal ion co-factor, catalysing several enzymatic 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<sup>2</sup> under fermentation conditions.

Deficiencies can cause the following symptoms:

- · Long lag phase
- · High pH
- · Stuck or sluggish fermentations
- · Poor fining rate

Previous research has shown that worts typically contain between 0.04 and 0.10 ppm of zinc. It has been noted that supplementing these worts with zinc to a level of 0.5 ppm stimulates yeast growth and improves fermentation performance.

Zinc Sulphate can also help reduce sulphury characteristics in beer by reacting with hydrogen sulphide produced during fermentation, precipitating as insoluble zinc sulphide.

#### PRODUCT CODE

ZINSUL

#### COMMODITY CODE

28332920

#### PACKAGING (kg)

2.5, 5, 12.5 & 25 kg

#### STORAGE

Keep in original container. Keep containers sealed when not in use.

## Location

Store in cool conditions away from direct sunlight.

## **Shelf Life**

At the recommended storage conditions, three years from date of manufacture.

# **Application & Rates of Use**

Zinc Sulphate Heptahydrate powder can be added to the kettle at the end of the boiling process or may be mixed with a small volume of wort and added to the fermenter.

Dosage rates may vary based on the yeast strain and grist composition. Zinc sulphate heptahydrate is typically added at a rate of 0.045 to 0.11 grams per hectolitre, providing an equivalent of 0.1 to 0.25 mg/L of  $\rm Zn^2$ .

## **Guidelines For Use**

- · In case of contact with skin and eyes wash immediately with plenty of water
- · Wash away spillages with plenty of water
- · Precautions should be taken to avoid creating and inhaling dust
- · Read the Safety Data Sheet prior to use



# **TECHNICAL SUPPORT**

+44 (0) 115 978 5494 | techsupport@murphyandson.co.uk

### REGULATORY COMPLIANCE INFORMATION

Refer to the 'Product Specification Sheet' or contact us on: +44 (0) 115 978 5494 | compliance@murphyandson.co.uk

| MURPHY & SON  | Product name : Zinc Sulpahte<br>Powder |
|---|--|
|   | Product code: ZINSUL                   |
|   | Doc Ref: TDS088                        |
| For Health & Safety<br>Information refer to the<br>Safety Data Sheet. | Issue Date: 19/03/2025                 |
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