

## Technical Data Sheet - Inactivated Specific Yeast

# ISY S-REDUCE™

## INACTIVATED YEAST WITH CELL WALLS RICH IN COPPER

AB Vickers ISY S-Reduce is your natural solution for Sulfur-Free Brews, every time.

AB Vickers ISY S-Reduce™ is an inactivated specific yeast autolysate rich in biologically-bound copper that can remove sulfur off-flavors from beer including hydrogen sulfide (H<sub>2</sub>S), dimethyl sulfide (DMS) and mercaptans. The sulfur compounds precipitate with the copper and are removed with the yeast leaving the beer tasting fresh and clean.



### PRINCIPLE

AB Vickers ISY S-Reduce™ is rich in copper that is immobilized to the yeast cell fraction. When applied to the beer, the copper reacts with sulfur compounds in the beer to form insoluble precipitates. The sulfur is then removed along with the biologically bound copper when the beer is transferred off the yeast or clarified by fining or filtration.

AB Vickers ISY S-Reduce™ is gluten-free.



### BENEFITS

- ▶ Efficient reduction or removal of hydrogen sulfide (H<sub>2</sub>S) from beer.
- ▶ Potential reduction of other sulfur compounds including dimethyl sulfide (DMS) and mercaptans.
- ▶ Avoid extended maturation for the purpose of reducing sulfur off-flavors.



### TREATMENT RATES

10-30g/hL



### APPLICATION

Dissolve AB Vickers ISY S-Reduce™ in about 10x its weight of sterile, deaerated water. Stir well and then mix thoroughly with the beer.



### QUICK FACTS

#### BENEFITS

Reduced sulfur off-flavors

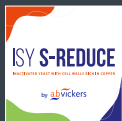
Shorter maturation time

#### TREATMENT RATES

10-30g/hL

#### APPLICATION

Add to the fermenter at the end of fermentation, or to the maturation tank.



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## BREWING PRACTICE

AB Vickers ISY S-Reduce™ does not contain a significant amount of nitrogen and should not be considered a nutrient addition.

Limit contact with the beer to 3-5 days. To achieve this, add product towards the end of fermentation or during maturation and transfer the beer off of the yeast within a few days. Sulfur reduction is efficient and normally achieved during this period. ISY S-Reduce™ is partially soluble and may contribute slight haze, which can be removed by clarification or filtration.



## MICROBIOLOGICAL ANALYSIS

Ingredients: Yeast autolysate (*Saccharomyces cerevisiae*), bentonite

DRY MATTER	≥ 93%
LACTIC BACTERIA	< 10 <sup>3</sup> CFU/g
ACETIC BACTERIA	< 10 <sup>3</sup> CFU/g
COLIFORMS	< 100 CFU/g
<i>E. COLI</i>	Absent in 1g
<i>S. AUREUS</i>	Absent in 1g
<i>SALMONELLA</i>	Absent in 25g
MOULDS	< 10 <sup>3</sup> CFU/g
YEAST	< 10 <sup>2</sup> CFU/g



## HEAVY METAL ANALYSIS

LEAD	< 2 mg/kg
MERCURY	< 1 mg/kg
ARSENIC	< 3 mg/kg
CADMIUM	< 1 mg/kg

The information herein is true and accurate to the best of our knowledge; however, this data sheet is not to be considered as a guarantee, expressed, or implied, or as a condition of sale of this product.



### BREWERS CORNER

For more information on our yeasts including:

- › Technical Documents
- › Best Practices Documents
- › Recipes
- › Pitch Rate Calculator and other brewing tools

Scan this QR code to visit the Brewers Corner on our website.

### CONTACT US

If you have questions, do not hesitate to contact us at **brewing@lallemand.com**. We have a team of technical representatives happy to help and guide you in your fermentation journey.

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