

# **NATUCLAR**

NATUCLAR is a purified fining agent consisting of Collagen an optimized blend of polyvinylpropyrrolidone (PVPP) and silica xerogel. It is a single-use product offering a highly effective means of preventing non-biological haze in beer. The combined use of PVPP and silica gel provides a balanced stabilization of both haze producing constituents, preventing the protein-polyphenol complexes from forming

## **BENEFICIARY FUNCTION:**

Naturalar single-use balanced beer stabilizer represents a significant development in preserving the quality and character of beer after packaging. It offers the following key benefits:

- Single-use stabilizer
- Simultaneous removal of proteins, tannoids and polyphenols
- Optimized ratio for preventing chill and permanent haze
- Enables flocculation of hydrated xerogel particles
- Improved material dispersion and transfer
- No settling of slurry at the bottom of tanks
- High adsorptive capacity for haze-forming precursors
- No negative impact on foam, flavor or other quality parameters
- Longer filter run lengths compared to silica alone
- Completely insoluble in beer

### Methods of Use

Natuclar single-use balanced beer stabilizer is made up as an 8% to 12% slurry in de-aerated water.

The minimum recommended hydration time is 60 minutes and the slurry should be kept constantly agitated to ensure proper hydration and mixing. Sparging with CO2 may be used in the dosing vessel to minimize oxygen pickup.

The Natuclar single-use balanced beer stabilizer slurry may be added during transfer from fermentation to maturation or The Natuclar single-use balanced beer stabilizer slurry may be added during transfer from fermentation to maturation or directly to the maturation vessel It is usually added to the beer stream en route to filtration, via a separate stabilizer-dosing dosing

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Naturalar single-use balanced beer stabilizer is effective with a contact time of a few minutes. However, for maximum benefit a contact time of 10 minutes is recommended minutes.

This can be achieved with proportional dosing of the stabilizer into the beer stream on entry into the maturation vessel or prior to the inlet buffer tank.

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## **Dosage Rates**

The exact dosing rate for Natuclar single-use balanced beer stabilizer is dependent upon the brewing raw materials used, process conditions and the shelf life requirement. The usual dosage level range for Natuclar single-use balanced beer stabilizer is 15 to 100 g/hl (4 to 26 lbs/100 US bbls). Typical examples are shown in the table:

Beer	Addition Rate (g/hl)
Strong beers > 7%	20 -
All malt lagers	20 - 50
All malt ales	20 -
Malt/adjunct lagers	15 - 50
Keg beers	10 - 40

#### **PRODUCT CHARACTERISTICS:**

Product Composition Blend of essential enzymes & loyal ingredients

Occurrence Powder

Appearance White to Off-white

**PACKAGING:** 

HDPE drums 25 Kg each

**PRODUCT STORAGE:** 

Below 10°C Indefinite shelf life under cool & dry condition

## **PRODUCT HANDLING:**

- Enzymes are proteins. Inhalation of dust or aerosols may induce sensitization and may cause allergic reactions in sensitized individuals. Some enzymes may irritate the skin, eyes and mucous membranes upon prolonged contact. The product may create easily inhaled aerosols if splashed or vigorously stirred.
- > Spilled product may dry out and create dust. Spilled material should be flushed away with water. Avoid splashing. Left over material may dry out and create dust.
- Wear suitable protective clothing, gloves and eye/face protection. Contaminated cloths should be properly washed.
- MSDS is supplied with the product. Follow MSDS safety instructions for more details.

### **Catalysts Biotechnologies Pvt Ltd**

ISO 9001:2015 Certified | FSSC 22000 Certified

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