



ENDOZYM Alphamyl SB1

Heat Stable α -Amylase

→ TECHNICAL DESCRIPTION

Endozym Alphamyl SB1 is a Heat Stable α -Amylase (EC 3.2.1.1) produced from *Bacillus licheniformis* and is a liquifying enzyme producing soluble dextrin and very low concentration sugars (maltose, maltotriose and glucose) at a very high temperature.

The α -amylase activity breaks down starch into soluble dextrans and oligosaccharides via endohydrolysis of 1,4-alpha-glucosidic linkages in amylose and amylopectin.

This results in a rapid reduction of the viscosity of gelatinized starch. The

α -amylase can operate at lower concentrations of calcium ions than conventional heat-stable alpha-amylases.

The enzyme preparation **Endozym Alphamyl SB1** is used in the food industry as a processing aid in the liquefaction of starch.

In the starch industry it is used in the production of syrups, in the brewing industry for liquefaction of the adjunct, and in the sugar industry for breaking down the starch present in cane juice, thereby reducing the starch content, which facilitates filtration.

→ COMPOSITION AND TECHNICAL CHARACTERISTICS

α -Amylase.

→ DOSAGE

10-30 mL/100 kg of raw grain.

→ INSTRUCTIONS FOR USE

The product is added to the mash water and is then thoroughly mixed to facilitate its action. The following conditions are best for its activity:

- * pH between 4,5 and 5,8;
- * temperature between 80 and 90°C.

The completion of the enzymatic action is clearly indicated by the disappearance of the iodine reaction. The ensuing process of wort boiling totally inactivates the enzyme.





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→ ADDITIONAL INFORMATION

Description: Brown liquid

Other components functional uses:

Sodium chloride

Enzyme preparation

Starch hydrolysis in the production of sweeteners, ethanol, and beer.

Enzymatic activity:

Heat Stable α -amylase Activity (AHTU/g) \geq 450

Total Viable Count $<$ 50 000 ufc/g

Coliforms $<$ 30 ufc/g

Salmonella Absent in 25g

Escherichia coli Absent in 1g

Optimal conditions for its activity:

pH: between 5.5 and 7.0

Temperature: about 90°C

Starch: in the starch industry, **Endozym Alphamyl SB1** is used for the liquefaction of starch at high temperature between 100 to 110°C heat stability of this amylase activity.

→ STORAGE AND PACKAGING

Lower than 25°C

Optimal storage near 4°C for maintaining the declared activity for at least a year.

25 kg drum.

