



Product Information Sheet

Amylase HT – 30K

An *Enzyme Supplies* high temperature α -amylase for the starch, alcohol, textile & ethanol industries

INTRODUCTION

Amylase HT-30K is a high temperature α -amylase produced by submerged fermentation of *Bacillus licheniformis*. The enzyme is an endo-amylase, hydrolyzing 1,4- α -glucosidic linkages in amylose & amylopectin at random, producing dextrans of different chain lengths & oligosaccharides. This results in a rapid decrease in the viscosity of starch solutions.

ENZYME PROPERTIES

Amylase HT-30K has an optimum pH range of 5.5-7.0 (effective range 5.0-8.0).

The enzyme is very heat stable, active over a temperature range from 90°C to 100°C, with an optimum performance at 90 to 95°C. When used for continuous liquefaction in steam jet cookers or similar, Amylase HT-30K can operate at temperatures of between 105°C to 110°C. Calcium ion addition at a rate of 50mg/kg - 100mg/kg is recommended to ensure optimal enzyme thermostability.

TYPICAL CHARACTERISTICS

Activity minimum 30,000 μ /ml (where 1 μ /ml is defined as the amount of enzyme in 1ml enzyme solution to liquefy 1mg of soluble starch / minute at pH 6.0 & 70°C)

Appearance – brown liquid

Bulk density 1.2-1.25 g/ml

APPLICATION SCOPE

Amylase HT-30K is widely used for high temperature liquefaction applications in the starch, alcohol, brewing, & ethanol industries. The enzyme is also a highly effective desizing agent for the textiles industry.

PACKAGING

Amylase HT-30K is available in bulk (1000Kg IBC's), and in 25Kg 'non-toxic' plastic barrels

STORAGE STABILITY

To maintain optimum activity, Amylase HT-30K should be stored at moderate temperatures (below 25 deg C), in the original containers and with the lid closed. When stored at temperatures below 25 deg C, the activity loss will be less than 10% in 6 months. At temperatures below 5 deg C, the activity loss will be less than 10% in 1 year.

SAFETY AND ENZYME HANDLING

Inhalation of aerosols from liquid enzymes should be avoided. Open in a well-ventilated environment. In case of contact with skin/eyes, promptly rinse with water for at least 15 minutes. Clean any spillages with low-pressure water hoses, avoiding the formation of aerosols. For more detailed information please refer to the Material Safety Data Sheet for this product

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