Description:

SEBamyl-GL is an enzyme produced by controlled fermentation of a non-GMO strain of Aspergillus niger. This enzyme is food-grade, Kosher, non-synthetic and can be used to produce certified-organic beverages. SEBamyl-GL is considered an exo-alpha-amylase, glucoamylase or amyloglucosidase enzyme. It acts to hydrolyze the alpha-D-1,4-glycosidic bonds on the non-reducing end of liquefied starch. In addition, SEBamy-GL has side alpha-D-1,6 glycosidic activity to increase hydrolysis of starch and amylopectin branch points. The prolonged action of SEBamyl-GL produces large amounts of glucose.

Application:

SEBamyl GL is used in the starch industry to produce glucose from liquefied starch. It is used in the distillery and fuel-alcohol industries for saccharification, and for simultaneous saccharification and fermentation of whole-grain mashes. In the brewing industry it is used to reduce residual grain-starch dextrins in the production of low-carbohydrate beer.

Benefits:

- Excellent temperature range of 30 – 65°C
- pH range of 2.8 – 5.5
- Produces high-DE, glucose syrups in less than 48 hours
- Whole-corn or grain starch saccharification
- Produced by fermentation of non-GMO, organism
- All-natural, non-synthetic ingredients

Enzyme Properties:

SEBamyl GL is a brownish liquid. The enzyme has a slight odor typical of fermented products. It is completely soluble in water. When used to saccharify starch, the optimum pH range is pH 2.8 - 5.5. pH inactivation occurs at a pH below pH 2.5 or above pH 5.5 SEBamyl GL is stable over a temperature range of 30 – 65°C. For saccharifications longer than 24 hours, the optimum temperature range is 55 – 60°C. Temperature inactivation occurs at or above 75°C. Complete inactivation can be achieved by heating to 95°C for approximately 10 minutes at pH 4.5 or to 75°C for 40 minutes.

Dosage:

The optimum dosage of SEBamyl GL depends on:

- Nature of the substrate to be saccharified
- Dry substance (DS) percent of the starch substrate
- Final syrup DE, % glucose required
- Saccharification temperature and pH
- Saccharification time (typically 24 – 96 hours)
- Recommended dose: 400 – 800 mL/metric ton starch DS (2,200 lbs.)
Quality Specifications:


Packaging:

SEBamyl GL is available in 25-kg jerry cans, 225-kg drums, 1,100-kg tote-bins, and in bulk.

Storage:

SEBamyl GL should be stored in a cool, dry place. Storage in unopened containers, at or below 5°C, helps to maintain maximum activity if stored over long periods. Under these conditions, activity loss after one year should not be more than 5 – 10%. Extended storage under adverse conditions, including high temperature (>10°C) may require the use of higher than recommended dosages.

Safety and Handling:

Liquid enzyme preparations are dust free. However, inappropriate handling may cause the formation of aerosols or dust. Avoid formation of aerosols and dust from dried out or spilled enzyme. Avoid splashing and high-pressure washing. Aerosols and dust may cause irritation when inhaled. Unnecessary contact with the product and inhalation of dust should be avoided. In case of spillage or contact with the skin or eyes, rinse affected area promptly with plenty of water. Specialty Enzymes and Biochemicals Co., provides Material Safety Data Sheets, and advice regarding the safe handling of enzymes.

The information contained in this product sheet is, to the best of our knowledge, true and accurate. Recommendations or suggestions made herein are without guarantee since the conditions of use and of storage are beyond our control. Specialty Enzymes and Biotechnologies Co., does not guarantee the product can be used as described herein without prior positive testing.