Description:

SEBflo-TL is a liquid enzyme preparation produced by fermentation of a selected, non-GMO strain of *Trichoderma reesei*. This enzyme is a food-grade, Kosher certified, non-synthetic and organic certifiable product. SEBflo-TL is an endo-glucanase enzyme, which catalyzes the breakdown of beta-glucans from barley, malt, cereal grains, gummy fruit like olives as well as other plant materials. SEBflo-TL catalyzes the breakdown of beta-glucans (1,4-beta-1,3-beta-glucans) to simple sugars. It promotes liquefaction, reduces viscosity, and improves solid/liquid separation, lautering and filtration. SEBflo-TL is essentially free of protease activity.

Application:

SEBflo-TL is used to supplement endogenous cereal glucanase enzyme activity when mashing or grinding malt or other cereal grains. SEBflo-TL beta-glucanase is more temperature-stable than malt glucanase. In the brewing and beverage alcohol industries, SEBflo-TL is used to breakdown cereal grain, cell-wall polysaccharides to increase the yield of fermentable sugars, and to reduce wort/mash viscosity. For best results SEBflo TL is added at the mashing-in stage.

Benefits:

- Increases extract yields by 5% - 20%
- Increases extract purity
- Increases extraction of cereal grain starch by 2 – 5%
- Easier and more rapid filtration
- Increased capacity and profitability

Enzyme Properties:

SEBflo TL is a light brown to brown liquid with a typical odor and taste of fermented products. The optimum temperature range for SEBflo-TL is 30 – 60°C. Temperature inactivation begins at 65 - 70°C (158°F). The optimum pH range is pH 4.0 –6.5. pH inactivation begins at a pH below 3.0 and above pH 6.5.

Dosage:

Optimum dosage of SEBflo-TL depends on:
- Particle size of milled barley, malt, cereal grain, olives or other plant material
- Enzyme treatment temperature and pH
- Type of lautering/filtration equipment used
- Barley/malt/grain substrate concentration (typically 12 – 50%)
- Enzyme treatment time (typically 0.5 – 1.0 hours)
- Recommended dose: 0.2 – 0.5 kg/metric ton of substrate.
Quality Specifications:


Packaging:

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

Storage:

SEBflo TL should be stored in a cool, dry place. Storage in unopened containers, at or below 10°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 temperatures (>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.