

## AMYL-LP

Alpha-amylase enzyme for use breaking down starch during slurry and liquefaction

---

### Description

Amyl-LP is an alpha-amylase enzyme effective at lower pH ranges that breaks down starch during primary and secondary liquefaction (slurry and liquefaction). The key enzyme activity is provided by endo-amylase that hydrolyzes (1,4)-alpha-D-glucosidic linkages in starch polysaccharides. At any given solids level, it reduces the Degree of Polymerization (DP) by breaking links between chains of dextrose molecules, while increasing the Dextrose Equivalent (DE). This allows for more complete access to starch molecules by the glucoamylase added during fermentation.

### Typical Characteristics

<b>Component name</b>	Alpha-amylase
<b>Activity</b>	160000 AAB-D/g
<b>Color</b>	Light to dark brown
<b>Physical form</b>	Liquid

### Dosage Recommendation

AMYL-LP should be dosed at 0.021 - 0.024% weight enzyme / weight as is corn. The actual dose required will depend upon the conditions of fermentation: time, initial pH, and the level of solids.

### Regulatory Status

- ISO 9001 registered company
- Kosher certified

### GM Status

This product is not a GMO. The enzyme product is manufactured by fermentation of microorganisms that are not present in the final product. The production organisms and the enzyme effectiveness is improved by means of modern biotechnology.

### Packaging

The product is available in totes or bulk tankers. Please contact the sales representative for more information.

### Storage

**Recommended storage:** 0-25 °C (32-77 °F)

Packaging must be kept intact, dry, and away from sunlight. Please follow the recommendations and use the product before the best before date to avoid the need for a higher dosage.

**Best before:** The best before date in the certificate of analysis or on the product label.

The product gives optimal performance when stored as recommended and used prior to the best-before date.

### Safety and Enzyme 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. See the MSDS or Safety Manual for further information regarding safe handling of the product and spills.

### Compliance

The product is produced by fermentation using a nonpathogenic, nontoxic microorganism known to be safe. The product is Generally Recognized as Safe (GRAS) for the intended use as a processing aid in the production of fuel ethanol in plants that also produce distiller's grains co-products (DDGS). The enzyme is nonfunctional in both the fuel ethanol and the DDGS. The product complies with the safety requirements of the US Federal Food, Drug and Cosmetic Act (FFDCA), including non-adulteration and suitability for use in animal feed.

## **AMYL-LP**

**Alpha-amylase enzyme for use breaking down starch during slurry and liquefaction**

---

### **Technical Service**

CTE Global, Inc. is committed to formulating a productive and mutually beneficial relationship with ethanol producers to make their fermentation process as consistent, efficient, and cost-effective as possible. More detailed information about the application of this product is available upon request. If you have any questions, please contact us and let us know how we can be of assistance.

For more information contact:

CTE Global, Inc.  
630 Dundee Road  
Suite 440  
Northbrook, IL 60062 USA  
Telephone: 847-564-5770  
Fax: 847-272-6003  
Web address: [www.cte-global.com](http://www.cte-global.com)