

**Kerry Ingredients & Flavours** 

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## **Product Data Sheet June '05 Update**

Product Name: Promalt 295
Product Code: 5B00281
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### **General Description**

**Promalt 295** is a glucanase preparation which also contains protease and alpha amylase activities. **Promalt 295** is derived from a classical and a self cloned strain of *Bacillus subtilis*. The enzymes are not genetically modified.

#### **Application**

**Promalt 295** is a unique malt enzyme replacement system which allows more consistent wort production with high adjunct brews. **Promalt 295** has been developed for the brewing and distilling industry and is recommended when using unevenly modified barley, grists with a high beta glucan content or grists containing high levels of adjuncts. **Promalt 295** maximises extract recovery, reduces wort run off time and prevents haze formation by either alpha or beta glucans and increases free alpha-amino nitrogen in wort.

The recommended dose rate of **Promait 295** is dependent on the grist content. For poor quality malts 0.025-0.05% (based on weight of malt in the mash) is recommended, while for high levels of adjuncts the dose rate may vary between 0.05- 0.2%. For use with barley dose rate between 0.1-0.5% (based on weight of barley in the mash)

#### **Specification**

Beta glucanase activity: min. 500 BG u/ml

(active pH:5.0 - 7.5 and active temp: 55-65°C /131-149°F)

Bacterial Amylase: min. 86,000 BAA u/ml

(active pH :5.0 - 7.5 and active temp: 60-80°C /140-176°F)

Protease: 23,000 NPU u/ml

(active pH:5.0 - 8.5 and active temp: 40-60°C /104-140°F)

#### Legal Status

Promalt 295 meets requirements for food grade enzymes as designated by JECFA/FCC.

Local food regulations should always be consulted with respect to specific applications and necessary declarations. Legislation may vary from country to country.

### Packaging & Storage

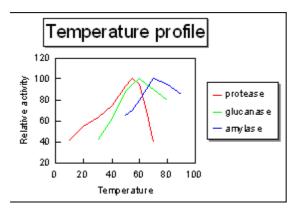
**Promalt 295** is available in 25 Kg plastic drums and, when stored at 18°C (64°F) or below, will maintain at least 95% activity for a minimum of 12 months. After this time period, reassay is advisable.

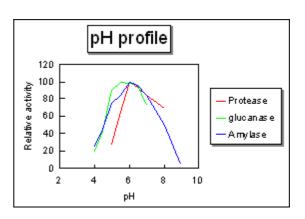
#### **Handling Precautions**

Enzymes may cause skin or eye irritation and inhalation of aerosol can result in sensitisation of susceptible individuals. Standard handling procedures should be followed to prevent direct contact with the product or inhalation of aerosol.

A separate Material Safety Data Sheet (MSDS) is available on request.

# **Promalt Activity Profiles**





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The temperature and pH profiles of glucanase, protease and amylase in **Promalt 295** are shown above. The brewing programme used should include a stand at 50°C (121°F) to allow proteolysis and b-glucan hydrolysis, followed by a stand at 65°C (149°F) for starch conversion.

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