

# CLARIZYME (CLZ511)

Clarizyme is a food grade liquid enzyme containing an endopeptidase.



## BENEFITS

Clarizyme prevents colloidal chill haze and can also reduce gluten levels to below 20 mg/kg which is the level below which beers can be declared gluten-free in certain global regions, and gluten reduced in others.



## DOSE RATES & APPLICATION

### Chill haze prevention:

In an all malt grist: 1 - 3 g/hl  
With 40% adjuncts: 1 - 2 g/hl

The higher rates offer longer protection from haze development.

### Gluten reduction:

In an all malt grist: 2 - 3 g/hl or up to 3.9 g/hl for high gravity beer  
With 40% adjuncts: 1.5 - 2 g/hl



## APPLICATION

### Added at the start of fermentation to cooled wort.

Clarizyme specifically targets proline (which reacts with polyphenols to form chill haze in beer) to prevent chill haze in beer. Other beer quality aspects are not affected due to the precision of Clarizyme.

Gluten contains a high level of proline which enables the Clarizyme endopeptidase to break the gluten proteins down to innocuous peptides.



## SPECIFICATIONS

### ACTIVITY

Minimum 5 PPU/g

### PROPERTIES

**Specific gravity** typically 1.1  
**pH** 3.8 - 4.2

### MICROBIOLOGICAL

<b>TOTAL VIABLE COUNT</b>	< 500/g
<b>COLIFORMS</b>	< 30/g
<b>E. COLI</b>	absent/25g
<b>SALMONELLA</b>	absent/25g

### HEAVY METALS

<b>Pb</b>	< 5 mg/kg
<b>As</b>	< 3 mg/kg
<b>Hg</b>	< 0.5 mg/kg
<b>Cd</b>	< 0.5 mg/kg



## PACKAGING & STORAGE

Clarizyme is available in 20 kg containers. The product should be stored in a dry cool area (4 - 8°C) and sheltered against direct sunlight. Under these conditions the shelf life is 36 months.



## SAFETY & HANDLING

Avoid unnecessary contact with enzyme preparations during handling. In case of spillage, rinse with water. Additional information can be found in the Safety Data Sheet.



## CONFORMITY TO STANDARDS

Clarizyme complies with the current recommended specifications for food grade enzymes given by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) and the Food Chemicals Codex (FCC).



## GMO STATUS

Clarizyme is not a GMO. The fermentation micro-organism has been self-cloned. The product is not included in the scope of Regulation (EC) No 1829/2003 on genetically modified food and feed. Therefore, its use will not lead to GM labeling of the final consumer product according to Regulation (EC) No 1830/2003 on traceability and labelling of genetically modified organisms.

### CONTACT US

For more information, please visit us online at  
[www.lallemandbrewing.com](http://www.lallemandbrewing.com)

For any questions, you can also reach us via email at  
[abvickers@lallemand.com](mailto:abvickers@lallemand.com)