

# Glucose Oxidase 789L

## G789L

### Features/Benefits

- Removal of oxygen from soft drinks
- De-sugaring
- Low catalase activity

Glucose Oxidase 789L can be used to extend the shelf life of soft drinks by scavenging oxygen. The enzyme catalyses the oxidation of glucose with oxygen to form gluconate and hydrogen peroxide. Hence, the activity of glucose oxidase consumes available oxygen which would otherwise reduce the shelf life of the product. The presence of a small amount of catalase may help to prevent the accumulation of hydrogen peroxide to detrimental levels. Glucose Oxidase 789L can also be used to de-sugar products and prevent browning caused by the Maillard reaction of glucose with amino acids. It can also aid the antimicrobial activity of Lactoperoxidase in milk products through the generation of hydrogen peroxide.

### Specification

|                           |  |
|---------------------------|--|
| Activity                  | 1,650 U/g Glucose Oxidase (catalase activity also present) |
| Biological Source         | <i>Aspergillus sp.</i>                                     |
| Form                      | Brown liquid   |
| Optimum pH Range          | 4.5 – 7.0  |
| Optimum Temperature Range | 20 - 50°C  |

### Application & Dose

Glucose Oxidase 789L is active over a wide pH range and is therefore active in the presence of most natural products without adjustment of pH. As a guide to dose, 10 - 60 ppm of this product can be added for oxygen scavenging in bottled orange juice. Trials will be required in order to determine the exact conditions necessary to obtain the desired effect. For the other applications similar trials will be necessary and Biocatalysts will be happy to discuss the usage of this enzyme in those trials.

### Health & Safety

Always read the Material Safety Datasheet (MSDS) before use and retain. If you are in any doubt about recommended product handling and safety, please contact Biocatalysts before use. Generally, when using enzymes avoid contact with the skin and eyes and do not breathe dusts or aerosols containing them.

### Storage

Liquids: Activity will remain within specification for at least 6 months from the date of manufacture when stored below 20°C.

### Allergens

Refer to allergen statement.

### Food Status

Prepared from enzymes of GRAS status and manufactured to FCC/JECFA/WHO/FAO recommendations for enzymes used in food processing.

### GM Status

This product does not contain GMMs or genetically modified material.

### Quality

1. Food Safety Policy - The Company operates a Hazard Analysis at Critical Control Points (HACCP) system. This ensures that ingredients and the production environment are regularly monitored for contamination and that the processes are designed to produce safe products every time.
2. Good Manufacturing Practice (GMP) - The Company's integrated management system encompasses Total Quality, Health and Safety, Food Safety and GMP.
3. Biocatalysts Ltd is certified to ISO9001, ISO14001, ISO18001 and FSSC 22000

### Availability

Liquids: standard 25kg net plastic jerry cans. Non-standard quantities are also available for some products, please enquire.