

## Depol™ 40L - D040L



- Maceration of botanical tissue
- Ideal for vegetable bouillon and juice production
- Increased juice extraction
- Facilitates extraction by decanters
- Beta-glucosidase can release bound flavours

Depol™ 40L is a broad spectrum carbohydrase preparation containing a mixture of pectinases, polygalacturonases, cellulases and hemicellulases. These enzymes aid maceration of plant tissues and are active over a wide pH range, making Depol™ 40L useful in a number of fruit and vegetable processing applications.

It helps increase yields of vegetable juice concentrates by solubilising components which would otherwise limit the extraction process and facilitates the separation in decanters.

Depol 40L is particularly suitable for the production of vegetable bouillon, cloud stable carrot juice concentrate and other vegetable juice concentrates.

For example, addition of Depol 40L can produce a 20-60% improvement in the yield of carrot juice (solids in the concentrate) compared to processing without enzyme.

### S P E C I F I C A T I O N

Activity	Cellulase 1200 U/g PG (Endo-galactouronase) 800 U/g
Biological Source	<i>Aspergillus sp/Trichoderma sp.</i>
Form	Clear brown liquid
Working pH	4.0 - 6.0
Temperature range	50 - 65°C

sheet no: 001/2

issue date: 24:10:06



## APPLICATION & DOSAGE

As an initial guide, Depol™ 40L can be added at 100 - 500ppm, based on the weight of solids. The material to be macerated should be chopped as finely as possible and suspended in water with the pH adjusted to 4 - 6. Incubation between 50 and 60°C is suggested but trials are needed to determine the exact conditions to obtain the desired effect.

Carrot juice extraction: The carrots should be mechanically macerated. Water is added (20 - 24%) and acidified to pH 5.0 - 5.2, followed by blanching at 90°C. The heating should be as quick as possible to prevent browning. The mixture is vacuum cooled to 30 - 50°C before addition of Depol™ 40L at 200 - 500ppm on carrot weight. The enzyme should yield 50 - 70kg of juice solids (in the finished concentrate) per tonne of raw carrots processed.

### HEALTH AND SAFETY

Always read the Health and Safety sheet (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

Activity will remain above the minimum analysis specification for at least 6 months from the date of the Batch Certificate of Analysis, when stored below 20°C.

### ALLERGENS

Soybean products and dairy lactose are used as fermentation substrates for this product. Their presence in the product is negligible.

### FOOD STATUS

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

### 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. ISO9001

Biocatalysts Ltd is certified to BS ISO9001: 2000. Regular Audits are carried out by the British Standards Institute (BSI) to ensure continuing compliance with the standard.

### AVAILABILITY

Liquids: standard 25kg nett plastic jerry cans. Non-standard quantities of 215kg and 1000kg are also available for some products, please enquire.



The production micro-organism used in this product is not a GMO. Within the proposed guidelines of the European Union regarding Genetically Modified products, the above product would be classed as GMO free.

