

# Harvest LB-1

## Product Information

Version: 1 PI GLOB EN 04-06-2018

### Description

Harvest LB-1 is a freeze dried concentrated pure culture of *Lactobacillus plantarum*. The culture has been selected to ensure a fast and safe acidification of cereal bases, vegetable juices and other sugar beverage bases.

*Lactobacillus plantarum* is a facultative homofermentative lactic acid bacteria, which means the culture will produce only lactic acid from hexose sugars like glucose and fructose.

The culture can also consume sucrose and maltose.

During acidification, the culture produces fruity aroma compounds (esters and terpenes, depending on the beverage base), which result in a flavorful end product.

The culture is ready for inoculation directly in all beverage bases without previous reactivation.

### Culture composition:

*Lactobacillus plantarum*.

Material No:	718316	Color:	Off-white to slightly brown
Size	10X10 HL	Format:	FD-DVS
Type	Pouch(es) in box	Form:	Freezedried

### Storage

-18 °C / 0 °F

### Transport condition

The product can be shipped and handled at ambient temperature.

### Shelf life

When stored according to recommendation the product has a shelf life of 24 months.

### Dosage

It is recommended to use one pouch in 10 hl (264 US gallons).

### Application

This culture has been selected for its overall outstanding performance and capability to perform a fast and safe acidification in:

o Cereal beverage bases (like wort) for kettle souring: <16h acidification time

o **Vegetable juices (like beetroot, carrot, tomato, ...) <24h acidification time**

o Other beverage bases: as long as there is glucose, fructose, sucrose or maltose available, the culture will perform acidification. However, care needs to be taken that enough other nutrients (like nitrogen) are present in the beverage base to be fermented.

If needed, Bactiv-Aid 2.0 can be added as an extra nutrient source.

Please contact our Application responsables for further information.

### Other features of the culture:

o Direct inoculation into all mentioned beverage bases

o High number of active cells which ensure a quick acidification start

o High level of microbiological purity

o Does not produce biogenic amines

o Production of fruity aroma compounds

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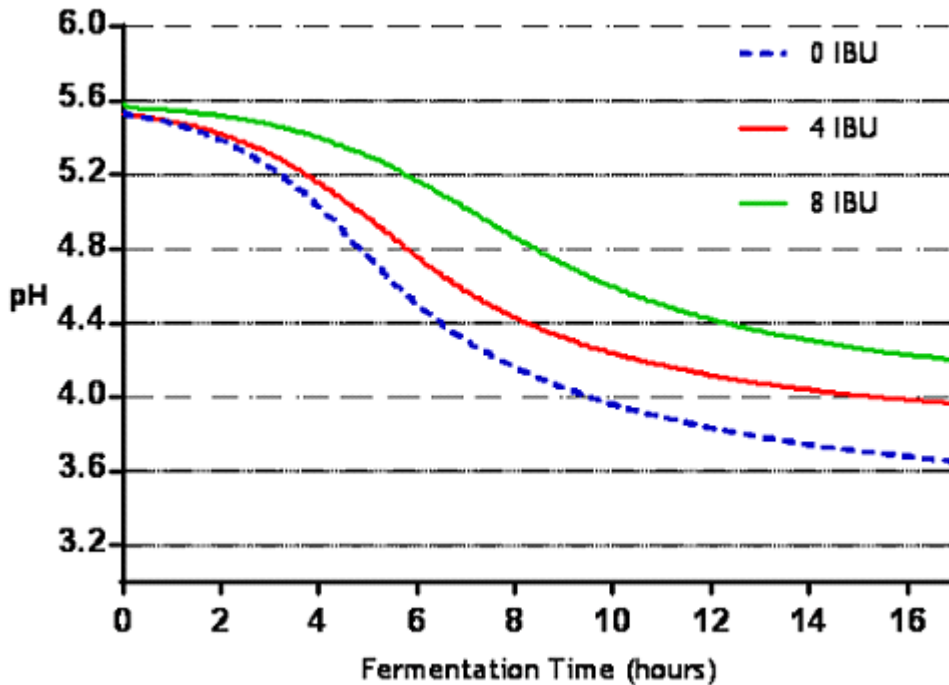
### Directions for use

This freeze-dried culture should be used for direct inoculation into beverage base. No rehydration or reactivation is required.

1. Remove the pouch from the freezer 15 min. prior to use and place it at room temperature. Make sure that the dosage complies with the amount of beverage base to be inoculated.
2. Open the pouch and add the granulated culture directly to beverage base. The culture can be dissolved in a smaller volume first and added to the total volume right after, if required. The culture should be completely dissolved in the beverage base.



### Technical Data



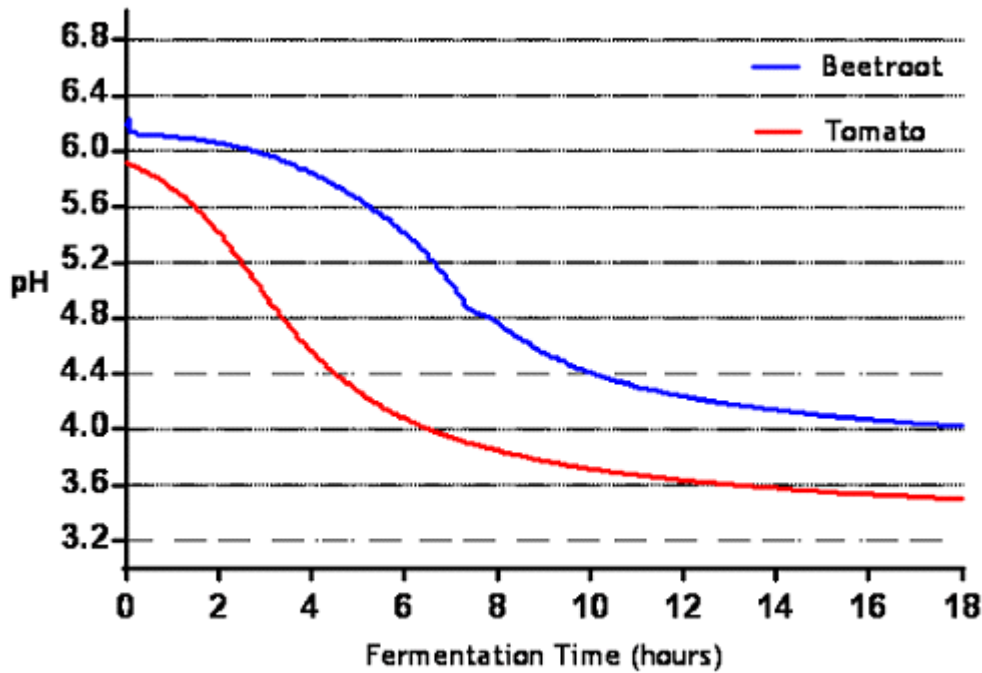
Fermentation Conditions: Wort (12° Plato), 30°C.

Inoculation: 1 pouch/10hL

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Fermentation conditions: Beetroot juice, 30°C and tomato juice broth (5° Brix), 37°C  
 Inoculation: 1 pouch/10hL

Physiological data

<b>Inoculation temperature range</b>	20-40°C (68-104°F)
<b>pH minimum*</b>	3.4
<b>Fermentation conditions*</b>	semi-anaerobic
<b>Mixing *</b>	mixing needed in tanks > 25 hL
<b>Hop additions (for sour beers) *</b>	<8IBU

*\* note that these inhibitory factors are antagonistic towards each other.  
 The individual tolerances are valid only if other conditions are favourable.*

**Legislation**

The product is intended for use in food. Chr. Hansen´s cultures comply with the general requirements on food safety laid down in Regulation 178/2002/EC and with Council Regulation (EC) No 606/2009 of 10 July 2009, as amended.

The product is intended for food use.

**Food Safety**

No guarantee of food safety is implied or inferred should this product be used in applications other than those stated above. Should you wish to use this product in another application, please contact your Chr. Hansen representative for assistance. Good Manufacturing Practise (GMP) is implemented in all plants manufacturing Chr. Hansen cultures. Chr. Hansen has made a risk assesment of microbiological, physical and chemical risks in our manufacturing and distribution plants for dairy, wine and meat cultures. Control points (CP´s) and Critical Control Points (CCP´s) are based on the risk assesment. A HACCP team as well as HACCP plans are established for each plant.

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### Labeling

No labeling required, however please consult local legislation if in doubt.

### Trademarks

Product names, names of concepts, logos, brands and other trademarks referred to in this document, whether or not appearing in large print, bold or with the ® or TM symbol are the property of Chr. Hansen A/S or an affiliate thereof or used under license. Trademarks appearing in this document may not be registered in your country, even if they are marked with an ®.

### Additional Information

Check the latest news on [www.chr-hansen.com/food-cultures-and-enzymes/wine](http://www.chr-hansen.com/food-cultures-and-enzymes/wine)

### Technical support

Chr. Hansen's Application and Product Development Laboratories and personnel are available if you need further information.

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### GMO Information

In accordance with the legislation in the European Union\* Harvest LB-1 does not contain GMOs and does not contain GM labeled raw materials\*\*. In accordance with European legislation on labeling of final food products\*\* we can inform that the use of Harvest LB-1 does not trigger a GM labeling of the final food product. Chr. Hansen's position on GMO can be found on: [www.chr-hansen.com](http://www.chr-hansen.com)

\* Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organisms with later amendments, and repealing Council Directive 90/220/EEC.

\*\* Regulation (EC) No 1829/2003 of the European Parliament and of the Council of 22 September 2003 on genetically modified food and feed with later amendments.

Regulation (EC) No 1830/2003 of the European Parliament and of the Council of 22 September 2003 concerning the traceability and labeling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms amending Directive 2001/18/EC, and with later amendments.

### Allergen Information

List of common allergens in accordance with the US Food Allergen Labeling and Consumer Protection Act of 2004 (FALCPA) and EU Regulation 1169/2011/EC with later amendments	Present as an ingredient in the product
Cereals containing gluten* and products thereof	No
Crustaceans and products thereof	No
Eggs and products thereof	No
Fish and products thereof	No
Peanuts and products thereof	No
Soybeans and products thereof	No
Milk and products thereof (including lactose)	No
Nuts* and products thereof	No
List of allergens in accordance with EU Regulation 1169/2011/EC only	
Celery and products thereof	No
Mustard and products thereof	No
Sesame seeds and products thereof	No
Lupine and products thereof	No
Mollusks and products thereof	No
Sulphur dioxide and sulphites (added) at concentrations of more than 10 mg/kg or 10 mg/litre expressed as SO <sub>2</sub>	No

\* Please consult the EU Regulation 1169/2011 Annex II for a legal definition of common allergens, see European Union law at: [www.eur-lex.europa.eu](http://www.eur-lex.europa.eu)