

## SECTION I - PRODUCT & COMPANY IDENTIFICATION

Product name: LALVIN IB  
Product code: 70012-34-09;  
Reference name: Lactic acid bacterial cultures, freeze-dried  
Description: Concentrated bacterial culture, powder.  
Product use: For use as food, feed or dietary supplements.  
Manufacturer's name: **LALLEMAND Inc.**  
8480 St-Laurent Blvd., Montreal, Quebec, Canada, H2P 2M6  
Information telephone: (514) 522-2133  
Emergency telephone (toll free): 1-800-452-4364 Ext. 4639 (in Canada and U.S.A.)  
Emergency telephone (direct): (514) 904-3072  
Date of MSDS preparation: April 18<sup>th</sup>, 2006  
Party responsible for MSDS preparation: Quality management technician – Tel: +49 176 22 12 62 89

## SECTION II - DATA ON COMPONENTS

Product composition: Bacterial culture  
Microbial concentration: > 10 billion CFU/gram  
Hazardous ingredients: None.

Information on bacterial component, as follows:

Name	CAS #	% by Wt	LD <sub>50</sub> & LC <sub>50</sub>	OSHA PEL	ACGIH TLV
<i>Lactic acid bacterial culture</i>	NA		Not established	Not established	Not established

## SECTION III – HEALTH HAZARD IDENTIFICATION

Signs and symptoms of overexposure to bacterial powder through primary routes of exposure:

Skin contact: May cause irritation on prolonged contact.  
Eye contact: May cause eye irritation upon direct contact.  
Inhalation: In some cases, repeated exposure may lead to allergic sensitization based on the exposure level, duration and susceptibility of the individual. Subsequent chronic or acute exposure in sensitized persons may cause a respiratory allergic reaction in minutes or delayed, or a mixture of both. Typical symptoms are respiratory irritation, breathlessness, coughing, chest tightness and difficulty breathing.  
Ingestion: Excessive ingestion of highly concentrated bacterial powder could lead to intestinal discomfort (e.g. diarrhea, bloating, cramping, etc.).

## SECTION IV – FIRST AID MEASURES (If any symptoms persist, seek medical attention)

If accidental overexposure is suspected:

Eye contact: Flush eyes for at least 15 minutes.  
Skin contact: Wash affected area with soap and water.  
Inhalation: Immediately remove person to fresh air.  
Ingestion: Drink plenty of water.

Note to physician: No special precautions to report.

Medical conditions likely to be aggravated by exposure: None

## SECTION V – FIRE FIGHTING MEASURES

Conditions of flammability:	Unknown.
Extinguishing media:	Water, foam, carbon dioxide, dry powder.
Flash point and method of determination:	Solid.
Flammable limits:	Not applicable.
Autoignition temperature:	No data available.
Hazardous combustion products:	None.
Explosion – sensitivity to mechanical impact:	None.
Explosion – sensitivity to static discharge:	None.
Firefighting procedures:	Use self-contained breathing apparatus (SCBA) when exposed to confined or enclosed fires.

## SECTION VI – ACCIDENTAL RELEASE MEASURES

In case material released or spilled, vacuum spill or dilute with water before removal. Collect waste in suitable container and wash surface with water. Avoid high pressure rinsing. Maintain good housekeeping practices. Biodegradable, may be discharged into sewer. No special disposal method required, except that it be in accordance with current local, state/provincial and federal regulations.

## SECTION VII – HANDLING & STORAGE

Handling:	Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear protective equipment described in Section VIII if exposure conditions warrant. Wash thoroughly after handling. Launder contaminated clothing before reuse.
Storage:	Refrigerated and dry conditions recommended. Avoid storage at temperatures above 8°C for prolonged periods of time. Containers should be kept sealed and dry.

## SECTION VIII – EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection:	Protective mask should be worn in conditions of excessive dusting.
Eye contact:	Protective glasses should be worn in conditions of excessive dusting. If eye contact occurs, rinse with water.
Clothing:	Suitable protective clothing. Follow current Good Manufacturing Practices when handling food or dietary supplement ingredients and materials.
Specific engineering controls:	None.

## SECTION IX – PHYSICAL & CHEMICAL PROPERTIES

Microbial concentration:	> 10 billion CFU/gram.
Physical state:	Solid (powder).
Appearance:	Fine to granular, ivory to beige powder.
Odour:	Not available.
Odour threshold:	Not applicable.
Specific gravity:	No data available.
Vapour pressure:	Not applicable.
Vapour density:	Not applicable.
Evaporation rate:	Not applicable.
Boiling point:	Not applicable.
Freezing point:	Not applicable.
Melting point:	Mixture.
pH:	No data available.
Partition coefficient:	Not applicable.
Viscosity:	Not applicable.
Solubility in water:	Partially soluble.

## SECTION X – STABILITY AND REACTIVITY

Stability:	Non-reactive.
Incompatibility:	No hazardous incompatibilities. Moisture and high temperatures are detrimental to microbial concentration of product.
Conditions to avoid:	Avoid storage temperatures above 8°C. Avoid high humidity.
Hazardous decomposition products:	None.
Hazardous polymerization:	None.

## SECTION XI – TOXICOLOGICAL INFORMATION

Product recognized as safe.	
Effects of short-term exposure:	None.
Effects of long-term exposure:	None.
Irritancy:	Unknown.
Sensitization:	Possible allergic sensitization (see Section III).
Allergy:	May contain dairy and soy products.
Carcinogenicity:	None.
Reproductive toxicity:	None.
Teratogenicity:	None.
Mutagenicity:	None.
Toxicologically synergistic products:	None.

## SECTION XII – ECOLOGICAL INFORMATION

No environmental effect.

## SECTION XIII – DISPOSAL CONSIDERATIONS

Product can be removed and disposed of in regular trash or waste. No special disposal method required, except that it be in accordance with current local authority regulations.

## SECTION XIV – TRANSPORT INFORMATION

Shipping classification: Not hazardous.  
Refrigerated transport is recommended.

## SECTION XV – REGULATORY INFORMATION

WHMIS classification for product: Not a WHMIS regulated product. Product is classified as WHO Risk Group I and is not considered to fall within the Canadian *Controlled Products Regulations* criteria for biohazardous infectious materials. This product does not meet the definition of a hazardous material given in the U.S. Occupational Safety and Health Administration's Hazard Communication Standard.

This MSDS has been prepared to meet the requirements of the Canadian *Controlled Products Regulations*.

## SECTION XVI – OTHER INFORMATION

The information herein is based on current available data and is believed to be correct. No warranty, express or implied, is made regarding data accuracy, merchantability or hazards associated with product use. The user is responsible for determining product suitability, conditions of use and all associated hazards. Values listed in this document are not product specifications.