

### SECTION 1 – IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 – Product identifier:

Commercial name: **Bio-Save® 10 LP Biological Fungicide**

#### 1.2 – Relevant identified uses of the substance or mixture and uses advised against:

Identified use: A post-harvest fungal disease control for raw agricultural commodities.

Use advised against: Use only as directed on the product label.

#### 1.3 – Details of the supplier of the safety data sheet:

Danstar Ferment AG/LALLEMAND PLANT CARE  
Poststrasse 30  
CH-6300 Zug, Switzerland  
Phone: +41 41 727 20 30  
www.lallemandplantcare.com

#### 1.4 – Emergency telephone number:

Contact your local doctor or hospital.

In EU: Call 112

In USA and Canada: Call +1-800-424-9300 / +1-703-527-3887

In Brazil: Call +55 34 3826-0400 / 0800-940-4377

In Uruguay: Call 1722

### SECTION 2 – HAZARD IDENTIFICATION

#### 2.1 – Classification of the substance or mixture:

Product is not classified as hazardous and does not contain any substances that are classified or labelled according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS section 1.5.2) and US Occupational Safety and Health Administration (OSHA).

#### 2.2 – Label elements:

Hazard pictogram(s): None required

EPA Signal word: Caution

Hazard statement(s): None required

Precautionary statement(s): Contact with eyes may cause mild/reversible eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

#### 2.3 – Other hazards:

No other hazards known.

### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 – Mixtures:

Substance name	CAS-, EC or index number	Concentration
<i>Pseudomonas syringae</i> strain ESC-10	CAS# 68583-32-4	> 9.0 x 10 <sup>10</sup> CFU/g (28.61%)

The other ingredients are not listed as they have no impact on the classification.

### SECTION 4 – FIRST AID MEASURES

#### 4.1 – Description of First Aid Measures:

General protection:	Protection of rescue workers: Wear appropriate individual protective equipment (see Section 8). Transport the affected person into the open air. Remove contaminated shoes and clothing.
Inhalation:	In the event of inhalation, take into the open air. Do not allow the person to get cold. Keep the victim resting in a semi-seated position. In the absence of breathing, use artificial respiration. Consult a doctor.
Ingestion:	In the event of ingestion, rinse the mouth with water (only if the person is conscious). Consult a doctor if symptoms develop.
Contact with the skin:	Rinse thoroughly in running water and soap. Remove contaminated shoes and clothing. Consult a doctor if symptoms develop.
Contact with the eyes:	Rinse thoroughly in running water, with the eyelids opened for a sufficient length of time (protect uninjured eye). Consult a doctor if symptoms develop.
First aid facilities:	Ensure that automatic eye baths and safety showers are located close to the workstations.

#### 4.2 – Most important symptoms and effects, both acute and delayed:

Eye contact:	May cause mild/reversible eye irritation.
Skin contact:	Non-irritating to the skin.
Inhalation:	No symptoms known.
Ingestion:	This material is not harmful if swallowed.

#### 4.3 – Indicate of any immediate medical attention and special treatment needed:

If you have any symptoms or concerns, consult a doctor. Show the safety data sheet, label or packaging to the emergency medical personnel. The decision on the treatment lapses with the doctor after the assessment of the victim status.

### **SECTION 5 – FIREFIGHTING MEASURES**

#### **5.1 – Extinguishing media:**

Suitable: Foam, dry chemicals, water or carbon dioxide.

Unsuitable: None.

#### **5.2 – Special hazards arising from the substance or mixture:**

This material is non-combustible.

#### **5.3 – Advice to firefighters:**

Wear a self-contained breathing apparatus (SCBA) when exposed to confined or enclosed fires as product powder could be in the air. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

### **SECTION 6 – ACCIDENTAL RELEASE MEASURES**

#### **6.1 – Personal precautions, protective equipment and emergency procedures:**

Avoid contact with the eyes, skin and clothing. Use appropriate protective equipment (see Section 8).

#### **6.2 – Environmental precautions:**

Do not allow to enter into surface water or drains. Retain contaminated washing water and dispose it.

#### **6.3 – Methods and material for containment and cleaning up:**

Small accidental spillage or leak: Avoid the formation of dust or spray. Mop up with appropriate material. Place in an appropriate container. Clean the area affected with plenty of water.

Large accidental spillage or leak: Prevent spillage into the drains, subsoil or confined areas. Contain if necessary. Mop up the product spilled with inert material (e.g. dry sand or dry earth) and place in a chemical waste container. Recycle if possible.

#### **6.4 – References to other sections:**

See Section 8 for personal protective equipment and section 13 for waste disposal.

### **SECTION 7 – HANDLING AND STORAGE**

#### **7.1 – Precautions for safe handling:**

**Handling:** Avoid contact with eyes. Use localized ventilation system. Don't use empty container before it has been cleaned. Before making transfer operations, assure that there are not any incompatible residues in the containers.

**Occupational hygiene:** Wash hands thoroughly after handling. Do not eat, drink or smoke while working. Store work clothing separately. See also section 8 for recommended equipment.

### 7.2 – Conditions for safe storage, including any incompatibilities:

Place of storage:

Store only in original containers under refrigerator conditions. Do not expose to heat or warm temperatures during storage and transportation. Keep refrigerated until used. Store product separately from food.

### 7.3 – Specific end use(s):

See subsection 1.2 of the safety data sheet.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 – Control parameters:

Exposure limits:

No limit established.

Biological limits:

No limit established.

### 8.2 – Exposure controls:

Protection of lungs:

In case of insufficient ventilation, effective dust mask.

Protection of skin:

Wear suitable protective clothing.

Protection of hands:

Wear insulated gloves when handling frozen materials.

Protection of eyes:

Wear goggles or safety glasses with side shields when mixing or loading.

Environmental exposure:

Special measures are not necessary.

## SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

### 9.1 – Information on basic physical and chemical properties:

Physical state:

Solid – powder.

Colour:

Off-white to tan.

Odour:

Bread like.

Melting point/freezing point:

Not available.

Boiling point or initial boiling point and boiling range:

Not available.

Flammability:

Not available.

Lower and upper explosion limit:

Not available.

Flash point:

Not available.

Auto-ignition temperature:

Not available.

Decomposition temperature:

Not available.

pH:

7.0.

Kinematic viscosity:

Not available.

Solubility:

Insoluble in water.

Partition coefficient (n-octanol/water):	Not available.
Vapour pressure:	Not available.
Density and/or relative density:	Not available.
Relative vapour density:	Not available.
Particle characteristics:	Powder.

**9.2 – Other information:**

No further information.

**SECTION 10 – STABILITY AND REACTIVITY**

**10.1 – Reactivity:**

Not reactive.

**10.2 – Chemical stability:**

Stable under recommended conditions of storage, use and transportation.

**10.3 – Possibility of hazardous reactions:**

None under normal processing.

**10.4 – Conditions to avoid:**

Heat or warm temperatures.

**10.5 – Incompatible materials:**

Acids, bases, concentrated fertilizer liquids, chemical pesticides, food, drink and animal feeding stuffs.

**10.6 – Hazardous decomposition products:**

Under recommended storage and use conditions, no hazardous decomposition products should appear. In case of fire, see section 5.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

**11.1 – Information on hazards classes as defined in Regulation (EC) No 1272/2008:**

Acute toxicity:	Oral: LD <sub>50</sub> (rats) > 5000 mg/kg.  Inhalation: No information is available for the mixture. However, no mortality or irreversible signs of toxicity were produced by the active ingredient, <i>Pseudomonas syringae</i> , in an inhalation toxicity study in rats.
Skin corrosion/irritation:	No skin irritation was noted in a primary dermal irritation study in rabbits. No local or systemic toxicity was noted in an acute dermal toxicity study in rabbits.  LD <sub>50</sub> (rabbits) > 5010 mg/kg.
Serious eye damage/irritation:	An eye irritation study in rabbits produced mild, reversible eye irritation.
Respiratory or skin sensitization:	No known information is available.

Germ cell mutagenicity:	No known information is available.
Carcinogenicity:	Not listed as a carcinogen by NTP, OSHA or IARC.
Reproductive toxicity:	No known information is available.
STOT-single exposure:	No known information is available.
STOT-repeated exposure:	No known information is available.
Aspiration hazard:	No known information is available.

### 11.2 – Other information:

No further information.

## SECTION 12 – ECOLOGICAL INFORMATION

### 12.1 – Toxicity:

No information is available. *Pseudomonas syringae* ESC 10, is not classified as a plant pathogen by USDA/APHIS.

### 12.2 – Persistence and degradability:

No known information is available.

### 12.3 – Bioaccumulative potential:

No known information is available.

### 12.4 – Mobility in soil:

No known information is available.

### 12.5 – Results of PBT and vPvB assessment:

No known information is available.

### 12.6 – Endocrine disrupting properties:

No known information is available.

### 12.7 – Other adverse effects:

If the product has escaped into a water course, into a drainage system, or has contaminated the ground or vegetation in exceed quantities, notify the competent authorities.

## SECTION 13 – DISPOSAL CONSIDERATIONS

### 13.1 – Waste treatment methods:

Product and packaging can be disposed of in regular trash or waste. No special disposal method required. Follow all applicable local laws for recycling, bagging, and disposal of trash.

## SECTION 14 – TRANSPORT INFORMATION

14.1 – UN number or ID number: Not applicable.

14.2 – UN proper shipping name: Not applicable.

14.3 – Transport hazard class(es):	Not applicable.
14.4 – Packing group:	Not applicable.
14.5 – Environmental hazards:	Not applicable.
14.6 – Special precautions for user:	Not applicable.
14.7 – Maritime transport in bulk according to IMO instruments:	Not applicable.
Not a DOT, IATA DGR and IMDG hazardous material.	

## SECTION 15 – REGULATORY INFORMATION

### 15.1 – Safety, health and environmental regulations/legislation specific for the substance or mixture:

#### In EU:

This product is not classified as dangerous according to the CLP Regulation (EC) No 1272/2008. The Safety Data Sheet of this non dangerous product and related Classification are in accordance with EU Regulations:

CLP Regulation (EC) 1272/2008 on classification, labelling, and packaging of substances and mixtures, amending and repealing Directives 67/548/EC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Regulation (EU) 453/2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

Regulation (EU) 453/2010 ANNEX II: Requirements for the compilation of safety data sheets.

Commission Regulation (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

Directive 1999/45/EC concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations.

#### In Canada:

WHMIS Statement: This product has been classified in accordance with the hazard criteria of the Controlled Product Regulation (CPR) and the SDS contains all the information required by the CPR.

#### In USA:

TSCA STATUS: Exempt

FIFRA: Regulated

CERCLA REPORTABLE QUANTITY: None

#### SARA Title III

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: None

SECTION 311/312 HAZARD CATEGORIES: Non-hazardous

SECTION 313 TOXIC CHEMICALS: None

# Bio-Save® 10 LP Biological Fungicide

## SAFETY DATA SHEET

RCRA STATUS: None

STATE/COUNTRY INFORMATION: Not applicable

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD CLASSIFICATION:(Key: 0=Minimum, 1=Slight, 2=Moderate, 3=High/Serious, 4=Extreme/Severe)

Health --- 0; Flammable --- 0; Reactivity --- 0

### In Brazil:

Federal Decree 2.657/1998.

ABNT–NBR 14725 Standard.

Ordinance nº 229 of 2011 – Amending the Regulatory Standard nº 26.

Joint Normative Instruction No. 3 of 2006.

### In Uruguay:

Resolution MGAP N° 688 04-10-2013 (MGAP – Ministry of Livestock, Agriculture and Fisheries).

## 15.2 – Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance / mixture by the supplier.

## SECTION 16 – OTHER INFORMATION

Method for the mixture classification: On basis of test data.

Revision summary: —

Creation date: September – 2022

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