

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

- 1.1 - Product identifier:** LALFIX® DUO FS for Pea and Lentil
- 1.2 - Identified and recommended use:** Microbial Inoculant – Pea and Lentil seed inoculant.
- 1.3 - Supplier details:** Lallemand Specialities Inc. / LALLEMAND PLANT CARE  
6120 West Douglas Avenue.  
Milwaukee, Wisconsin  
53218.  
United States  
  
Phone : +1-414-464-6440  
plantcare@lallemand.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

## SECTION 2 - HAZARD IDENTIFICATION

### 2.1 - Classification of the mixture

Product is not classified as hazardous and does not contain any substances that are classified or labelled according to Regulations (EC) 1272/2008, (EU) 453/2010, (EC) 1907/2006 (REACH), Directive 1999/45/EC, to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS section 1.5.2), the Canadian Hazardous Product Act, US Occupational Safety and Health Administration (OSHA) and Controlled Product Regulation (CPR).

Contains microorganisms, which may cause sensitizing reactions.

## SECTION 3 - COMPOSITION

Substance name	CAS-, EC or index number	REACH Registration No.	Concentration	Classification - pictograms - H-statements - category
<i>Rhizobium leguminosarum biovar viceae</i>	None	None	> 1.0 x 10 <sup>8</sup> CFU/g	None

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 irritation of the eyes (redness).
Skin contact:	Prolonged or repeated contact with the skin may cause irritation.
Inhalation:	May cause coughing (irritation) or irritate asthma. May cause sensitization.
Ingestion:	Ingestion of the product may elicit gastrointestinal problems. May induce vomiting, headache, listlessness.

**SECTION 5 – FIRE FIGHTING MEASURES****5.1 - Extinguishing media:**

Suitable:	Water, foam, carbon dioxide, dry powder.
Unsuitable:	Do not use a solid water stream as it may scatter and spread fire.

CAUTION : Burning and smouldering may continue inside bags or if material is piled. After fire is, spread material to assure that it is not smouldering or starting to reheat.

**5.2 - Special hazard arising from the material:**

Do not inhale explosion and combustion gases. Burning may produce heavy smoke. . Material allowed to smolder for long periods in enclosed spaces may produces amounts of carbón monoxide with reach the lower explosive limit (EL = 12.5% in the air).

**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 soil/sub soil. Do not allow to enter into surface water or drains. Retain contaminated washing water and dispose it. This material is not a physical, health or environmental hazard.

### 6.3 - Method and materials for clean 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 4 for recommended equipment.

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

Place of storage : Store in dry and well-ventilated place in its tightly closed original packaging, at temperature between 4°C and 25°C (40°F and 77°F). if products get wet, molding can occur. Periodically check bags for signs of internal heating.

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 - Protection of lungs : In case of insufficient ventilation, effective dust mask.

<b>8.2 - Protection of skin:</b>	Wear suitable protective clothing.
<b>8.3 - Protection of hands:</b>	Wear protective gloves.
<b>8.4 - Protection of eyes:</b>	Safety glasses with side-shields.
<b>8.5 - Exposition limits:</b>	OSHA PEL : 15mg/m <sup>3</sup> (total dust); Canada : 10mg/m <sup>3</sup> (inhalable), 3mg/m <sup>3</sup> (respirable) ; EU : 10mg/m <sup>3</sup> (inhalable), 3mg/m <sup>3</sup> (respirable)

## SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

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

Appearance:	solid, dark brown, granular
Odour:	mild smoky
Solubility in water:	insoluble
pH:	6 to 8.
Specific gravity:	0.4
Autoignition temperature:	260°C (500°F)
Explosivity:	P <sub>max</sub> : 8.1bar; (dP/dt) <sub>max</sub> : 286bars/s; K <sub>max</sub> : 78m.bar/s

## SECTION 10 – STABILITY AND REACTIVITY

Stable under recommended conditions of storage, use and transportation.

### 10.1 - Possibility of hazardous reactions:

None under normal processing.

### 10.2 - Conditions to avoid :

No specific data.

### 10.3 - Incompatible materials

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

### 10.4 - Hazardous decomposition products

Thermal decomposition products include carbon monoxide, carbon dioxide, hydrocarbons. In case of fire, see section 5. Materials allowed to smolder for long periods in enclosed spaces may produce amounts of carbon monoxide with reach the lower explosive limit (LEL= 12,5% in the air)

**SECTION 11 – TOXICOLOGICAL INFORMATION****11.1- Information on toxicological effects**

Acute toxicity:	LD50/oral/rat $\geq$ 2000mg/Kg LC/inhalation/1h/rat $\geq$ 8.5mg/L
Skin corrosion/irritation :	Irritation to the skin may occur.
Serious eye damage/irritation:	Irritation to the eyes may occur.
Respiratory /Skin sensitization:	Irritation to the nose or throat may occur.
Germ cell mutagenicity:	No known information is available.
Carcinogenicity:	No known information is available.
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.
Other information:	No further information.

According to the Regulation (EC) No. 1272/2008, LALFIX DUO FS PEA & LENTIL is not classified.  
Contains microorganisms, which may cause sensitizing reactions.

**SECTION 12 – ECOLOGICAL INFORMATION****12.1 - Toxicity**

No known information is available.

**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**

Not considered to be a PBT and vPvB substance.

**12.6 - 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**

Product is not classified as dangerous goods according to international transportation regulations in force ADR, RID, ADN, OACI/IATA and OMI/IMDG.

**SECTION 15 – REGULATORY INFORMATION****15.1- 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.

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.

**15.2 - Canada**

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

**15.3 - USA**

California Proposition 65: This product does not contain any proposition 65 chemicals.

SARA 313, section 313 of the Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and 40 CFR Part 372.

**15.4 - BRAZIL**

- Federal Decree 2.657/1998
- ABNT-NBR 14725 Standard
- Ordinance nº 229 of 2011 - Amending the Regulatory Standard nº 26

## 15.5 - URUGUAY

- Decree 7/99 MGAP
- Decree 546/981 MGAP
- MERCOSUR/GMC/Res. N° 28/98

## SECTION 16 – OTHER INFORMATION

Contains microorganisms, which may cause sensitizing reactions.

### DISCLAIMER

The information provided in this document is accurate to the best of Danstar Ferment AG / LALLEMAND PLANT CARE's knowledge as of the date of its publication; is a guide for the safe handling, use, processing, storage, transportation, disposal and release of this material; is not meant as a warranty or quality specification since the conditions of the above mentioned actions are beyond Danstar Ferment AG / LALLEMAND PLANT CARE's control; and relates only to this material and may not be applicable to this material used in combination with others or in any process unless specified otherwise.

Danstar Ferment AG / LALLEMAND PLANT CARE does not assume and will not take any responsibility with regards to the content or use of this information, nor does it express any opinion or advice namely but without limitations, on the information herein contained. In no event, shall Danstar Ferment AG/ LALLEMAND PLANT CARE be liable for loss of profit, loss of goodwill, loss of image, incidental, and consequential, indirect, special or punitive damages suffered in connection with the use of this information or material.