

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

- 1.1 - Product identifier: LALSTOP® K61 WP
- 1.2 - Identified and recommended use: PLANT PROTECTION PRODUCT
- 1.3 - Supplier details: 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 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.

P102	Keep out of reach of children
P261	Avoid breathing dust.
P262	Do not get in eyes, on skin, or on clothing.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352	If ON SKIN: Wash with plenty of soap and water.
P333 + P313	If skin irritation or rash occurs: get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P501	Dispose of contents/container in accordance with local regulation.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.
SP1	Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

SECTION 3 – COMPOSITION

Substance name	CAS-, EC or index number	REACH Registration No.	Concentration	Classification - pictograms - H-statements - category
Dried spores and mycelium of <i>Streptomyces</i> , strain K61	None	None	> 1.0 x 10 ⁸ 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:	No known symptoms.
Skin contact:	Prolonged or repeated contact with the skin may cause irritation.
Inhalation:	May cause coughing (irritation) or irritate asthma. May cause sensitization.
Ingestion:	No known symptoms.

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

Suitable: Water, foam, carbon dioxide, dry powder.

Unsuitable: None.

5.2 - Special hazard arising from the material:

Do not inhale explosion and combustion gases. Burning may produce heavy smoke.

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. 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 breathing dust. Avoid contact with eyes. Use localized ventilation system.

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 4°C.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

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|----------------------------|---|
| 8.1 - Protection of lungs: | In case of insufficient ventilation, effective dust mask. |
| 8.2 - Protection of skin: | Wear suitable protective clothing. |
| 8.3 - Protection of hands: | Wear protective gloves. |
| 8.4 - Protection of eyes: | Safety glasses with side-shields. |
| 8.5 - Exposition limits: | No exposure limits. The active substance is natural and generally occurring soil-borne microbe. |

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES**9.1 - Information on basic physical and chemical properties:**

Appearance:	White powder.
Odour:	Typical smell.
pH:	Not available.
Melting point/Freezing point:	Not relevant.
Initial boiling point and boiling range:	Not relevant.
Flash point:	Not relevant.
Evaporation rate:	Not relevant.
Flammability (solid, gas):	Not relevant.
Upper/lower flammability or explosive limits:	Not relevant.
Vapour pressure:	Not relevant.
Vapour density:	Not relevant.
Relative density:	Not relevant.
Solubility in water:	Insoluble.
Partition coefficient (n-octanol/water):	Not relevant.
Auto-ignition temperature:	Not relevant.
Decomposition temperature:	Not relevant.
Viscosity:	Not relevant.
Explosive properties:	Not relevant.
Oxidising properties:	Not relevant.

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:

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 toxicological effects:**

Acute toxicity:	No toxicity, infectivity or pathogenicity.
Inhalation:	Not toxic or pathogenic to rat. LD ₅₀ : 2 g/kg.
Dermal contact:	Not toxic, infective or pathogenic to rat. LD ₅₀ > 2 g/kg.
Skin corrosion/irritation:	Very slight erythema totally reversible.
Serious eye damage/irritation:	Conjunctivae reactions totally reversible.
Respiratory /Skin sensitization:	May have the potential to provoke sensitizing reactions.
Germ cell mutagenicity:	No recognized mutagenicity.
Carcinogenicity:	No recognized carcinogenicity.
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, LALSTOP® K61 WP is not classified.

Contains microorganisms, which may cause sensitizing reactions.

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

The product and its components are not classified as ecologically toxic. Due to the composition of LALSTOP® K61 WP, the information provided on *Streptomyces griseoviridis* naturally occurring soil-borne microorganism, is applicable to LALSTOP® K61 WP:

- Not toxic or pathogenic to fish (*Oncorhynchus mykiss*), (no-observed-effect concentration (NOEC) = 5×10^7 cfu/l).
- Not toxic or pathogenic to daphnia (*Daphnia magna*), (no-observed-effect concentration (NOEC) = 1×10^7 cfu/l).
- Not toxic or pathogenic to bird (*Colinus virginianus*), (LD50 > 2500 mg/kg).
- Not toxic or pathogenic to honeybee (*Apis mellifera*), (LC50 > 2400 ppm).
- Not toxic or pathogenic to earthworm (*Eisenia foetida*), (LC50 > 1000 mg/kg).

12.2 - Persistence and degradability:

Degradability expected to be easy, as for other naturally occurring soil microbes.

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:**

Leftover product and empty packaging are disposed of in accordance with local and national regulations.

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.

Regulation (EU) 547/2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards labelling requirements for plant protection products.

Directive 2003/82/EC regarding standard phrases for special risk and safety precautions for plant protection products.

Directive 2001/36/EC concerning the placing of plant protection products on the market.

Active substance and formulated end product/mixture regulated as plant protection product under Regulation (EC) 1107/2009, (EU) 540/2011 and Directive 91/414/EEC.

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.

SARA 311, section 312	Hazardous Categorization:
Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

15.4 – 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

15.5 – Uruguay:

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

SECTION 16 – OTHER INFORMATION

Contains microorganisms, which may cause sensitizing reactions.

DISCLAIMER

The information provided in this Safety Data Sheet is accurate to the best of Danstar Ferment AG / LALLEMAND PLANT CARE's knowledge on the date of its publication. It is a guide for the safe handling, use, processing, storage, transportation, disposal, and release of this material and is not meant as a warranty or quality specification since the conditions of these actions are beyond Danstar Ferment AG / LALLEMAND PLANT CARE's control. It 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.

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