Safety Data Sheet

LALNIX® ACT DC

LALLEMAND PLANT CARE

Version: 1
Version date: 22/05/2024
Language: EN
According to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No. 2020/878)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1. Product identifier

Trade name/designation : **LALNIX® ACT DC**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Uses advised against : No data available.

Relevant identified uses : NEMATICIDE, INSECTICIDE

1.3. Details of the supplier of the safety data sheet

Supplier : **Name**: Danstar Ferment AG / LALLLEMAND PLANT CARE

Street: Poststrasse 30

Postal code/City: 6300 / Zug

Country: Switzerland

Telephone: +41 41 727 20 30

Website: Www.lallemandplantcare.com

E-mail: Plantcare@lallemand.com

1.4. Emergency Telephone Number

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

In the European Union: Call 112.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to the regulation (EC) n° 1272/2008 (CLP) and its amendments

- **Dangerous good if more than 5L per packaging (bottle)**
- **No dangerous good if below than 5L**

- Globally Harmonized System of Classification and Labelling of Chemicals (GHS section 1.5.2).

- Canadian Hazardous Product Act (HPA).
- US Occupational Safety and Health Administration (OSHA).
- Regulation 1272/2008/EC (CLP).

Classification: Sensitization – Skin Category 1

Eye Damage/Irritation Category 2A

Hazardous to the Aquatic Environment – Long-term (Chronic) Hazard Category 2

2.2. Label elements

Label elements according to the regulation (EC) n°1272/2008 (CLP) and its amendments

Hazard pictograms :

Signal word : **Warning**

Hazard statement(s):
H317 – May cause an allergic skin reaction.
H319 – Causes serious eye irritation.
H411 – Toxic to aquatic life with long lasting effects.
EUH401 – To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statement(s):
P280 – Wear protective gloves, eye protection/face protection.
P308 + P311 – IF exposed or concerned: Call a POISON CENTER/doctor.
P391 – Collect spillage.
P501 – Dispose of contents/container in accordance with national regulations.

2.3. Other hazards

Information on PBT and vPvB:
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) and does not fall under Annex XIII of Regulation (EC) 1907/2006.

Information on endocrine disrupting properties:
This substance/mixture does not contain any components considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Delegated regulation (EU) 2017/2100 or to Commission Regulation (EU) 2018/605.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Product is a mixture.

3.2. Mixtures

Ingredient (active)	*Purpureocillium lilacinum* strain 251
CAS No. / EC No.	Not applicable
REACH Registration No.	Not applicable
Content	≥ 4.7 x 10^{10} viable spores/mL
Classification according to Reg (EC) No 1278/2008 [CLP]	Not classified

Ingredient (active)	Polyether modified trisiloxane
CAS No. / EC No.	134180-76-0
REACH Registration No.	Not applicable
Content	80%
Classification according to Reg (EC) No 1278/2008 [CLP]	Acute toxin 4, H312 Acute toxin 4, H332 Eye irritation 2, H319 Aquatic Chronicle 2, H411

Other ingredients:
Mixture does not contain any other ingredients that are classified as dangerous according to Reg (EC) No. 1272/2008 [CLP].

Remark

Not available.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information:

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.

Following 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.

Following skin contact:

Rinse thoroughly in running water and soap. Remove contaminated shoes and clothing. Consult a doctor if symptoms develop.

Following eye contact:

Rinse thoroughly in running water, with the eyelids opened for a sufficient length of time (protect uninjured eye). Consult a doctor if symptoms develop

Following ingestion:

In the event of ingestion, rinse the mouth with water (only if the person is conscious). Consult a doctor if symptoms develop. Do NOT induce vomiting.

Self-protection of the first aider:

No special measures are necessary.

4.2. Most important symptoms and effects, both acute and delayed

Eye contact: May cause eye irritation (redness).

Skin Contact: Prolonged or repeated skin contact may cause irritation.

Inhalation: None.

Ingestion: None.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:

Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media:

High volume water jet.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for 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.

Additional information

Not available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes, skin and clothing. Wear suitable 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. Methods and material for containment and cleaning up

Small accidental spillage or leak: 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.

6.4. Reference to other sections

Safe handling: see section 7.

Disposal: see section 13.

Personal protection equipment: see section 8.

Additional information

Not available.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

PROTECTIVE MEASURES:

Preventive measures: Keep out of the reach of children and unauthorized persons.

Handling: Avoid contact with skin or eyes. Use localized ventilation system.

Advices on general 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

Store in dry and well-ventilated place in its tightly closed original packaging. Storage instructions (temperatures and times) given on product label.

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

National occupational exposure limit values: None.
Other limit values: None.
DNEL: None.
PNEC: None.

8.2. Exposure controls

Appropriate engineering controls:

See section 7. No additional measures necessary.

Individual protection measures, such as personal protective equipment:

Eye/face protection : Safety glasses with side-shields.

Suitable eye protection: No special measures are necessary.

Skin protection : Wear standard coveralls and Category 3 Type 5 suit.

Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

If there is a risk of significant exposure, consider a higher protective type suit.

Hand protection: Wear protective gloves.

Suitable gloves type: Wear chemical resistant nitrile rubber gloves.

Body protection: No special measures are necessary.

Suitable protective clothing: No special measures are necessary.

Respiratory protection : In case of insufficient ventilation, wear respirator with a parti-cle filter mask (protection factor 20)

Suitable respiratory protection apparatus: No data available.

Environmental exposure controls:

Active microbe is a natural and generally occurring fungus. No environmental exposure limits or controls. Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local and national health and environmental regulations.

Consumer exposure controls:

Not available.

Additional information

Not available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Dark brown to brown-violet
Odour	:	Characteristic
pH	:	Not available
Melting point/freezing point	:	Not available
Initial boiling point and boiling range	:	Not available
Flash point	:	112°C.
Flammability	:	Not available
Upper/lower flammability or explosive limits	:	Not explosive 92/69/EEC, A.14/OECD 113.
Vapour pressure	:	Not available
Vapour density	:	Not available
Relative density	:	Not available
Solubility(ies)	:	Soluble in water
Partition coefficient n-octanol/water (log value)	:	Polyether modified heptamethyltrisiloxane – log Pow: 1,42
Auto-ignition temperature	:	385°C.
Decomposition temperature	:	Not available
Dynamic viscosity	:	Not applicable

Kinematic viscosity : Not available

Oxidising properties : Not available

Solubility in other Solvents : Not available

Particle characteristics : Not applicable

9.2. Other safety information

Other security characteristics

Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Stable under recommended conditions of storage, use and transportation.

Not reactive. No hazardous reactions when transported, stored, and handled according to prescribed instructions.

10.2. Chemical stability

Stable under recommended conditions of storage, use and transportation.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight. Freezing.

10.5. Incompatible materials

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

Store only in the original container.

10.6. Hazardous decomposition products

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

Additional information

Not available.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity:

Oral: LD50 (Rat) > 5.000 mg/kg.

Inhalation: no relevant route of exposure for this formulation. No vola-tility, no aerosols under normal conditions.

Dermal: LD50 (Rat) > 5.000 mg/kg.

Acute dermal toxicity:

The product is not classified.

Acute inhalation toxicity:

The product is not classified.

Skin corrosion/irritation:

Slight irritant effect (rabbit).

Serious eye damage/irritation:

Severe eye irritation (rabbit).

Skin sensitisation:

Possible skin irritation.

Specific target organ toxicity (repeated exposure):

Purpureocillium lilacinum 251 did not cause specific target organ tox-icity in experimental animal studies.

Specific target organ toxicity (single exposure):

Purpureocillium lilacinum 251 did not cause specific target organ tox-icity in experimental animal studies.

Carcinogenicity:

No data available. Not required for microbial based product.

Reproductive toxicity:

No data available. Not required for microbial based product.

Germ cell mutagenicity:

Purpureocillium lilacinum 251 was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Not mutagenic in Ames Test.

Sensitisation to the respiratory tract:

Skin: Sensitising (mouse).

OECD Test Guideline 429, local lymph node assay (LLNA).

Skin: Sensitising (guinea pig).

OECD Test Guideline 406, Buehler test.

Additional information:

Not available

11.2. Information on other hazards

Endocrine disrupting properties:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other information:

No other known hazards.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity to fish:	LC_{50} (*Oncorhynchus mykiss* (rainbow trout)) 2,1 mg/L Exposure time: 96 h Information refers to the main component.
Toxicity to aquatic invertebrates:	LC_{50} (*Daphnia magna* (water flea)) 1,1 mg/L Exposure time: 48 h Information refers to the main component.

Toxicity to aquatic plants:	EC_{50} (*Desmodesmus subspicatus* (green algae)) 28,2 mg/L
	Biomass; Exposure time: 72 h
	Information refers to the main component.
	EC_{50} (*Desmodesmus subspicatus* (green algae)) 152,2 mg/L
	Growth rate; Exposure time: 72 h
	Information refers to the main component.

12.2. Persistence and degradability

Polyether modified heptamethyltrisiloxane not rapidly biodegradable.

12.3. Bioaccumulative potential

Purpureocillium lilacinum 251 does not bioaccumulate.

12.4. Mobility in soil

Purpureocillium lilacinum 251 is immobile in soil.

12.5. Results of PBT and vPvB assessment

According to Regulation (EU) 1907/2006, no substances are assessed as PBT or vPvB.

12.6. Endocrine disrupting properties

According to Regulation (EU) 2017/2100 or Regulation (EU) 2018/605, no substances are known to have endocrine disrupting properties.

12.7. Other adverse effects

Not available.

Additional ecotoxicological information

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Disposal instructions:

Dispose of contents and container in accordance with local and national regulations.

Do not throw the product or packaging/containers into waters, ponds, rivers or ditches.

Product disposal:
To avoid wastes, use all material in this package/container by application according to label instructions. If wastes cannot be avoided, offer remaining product to an appropriate waste collection point according to national and local pesticide disposal requirements and instructions.

Sewage disposal:
Waste should not be disposed of by release to sewers.

Packaging disposal:
Rinse empty packaging/container with water to reduce any potential product residue in the packaging/container to insignificant amounts. Empty, rinsed packages/containers are disposed to appropriate waste collection point according to national and local requirements and instructions. Do not reuse or refill the packages/containers for other purposes.

Additional information

Not available.

SECTION 14: TRANSPORT INFORMATION

14.1 – ADR/RID/ADN:

UN number:	3082
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (POLYETHERSILOXANE)
Transport hazard class(es):	9
Packaging Group:	III
Environm. Hazardous Mark:	YES
Hazard no.:	90
Tunnel Code:	-

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

14.2 – IMDG:

UN number:	3082
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (POLYETHERSILOXANE)
Transport hazard class(es):	9
Packaging Group:	III
Marine pollutant:	YES

14.3 – IATA:

UN number:	3082
Proper shipping name: N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
	(POLYETHERSILOXANE)
Transport hazard class(es):	9
Packaging Group:	III
Environm. Hazardous Mark:	YES

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Safety Data Sheet and Classification in accordance with following EU Regulations:

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

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.

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:

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.

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 under Regulation (EC) 1907/2006 REACH).

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

Additional information

Not available.

SECTION 16: OTHER INFORMATION

Indication of changes

Revision of Section 1 to 16.

Abbreviations and acronyms

ADR: Accord European Relatif au International Transport des Marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road).

CFU: Colony forming units.

CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.

EC50: Average effective concentration.

ECHA: European Chemicals Agency.

EC: European Community.

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

EN: European standards.

EU: European Union.

IATA: International Air Transport Association (= International Air Transport Association).

IMDG: Code International Maritime Code for Dangerous Goods.

LC50: Lethal Concentration to 50% of a test population.

LD50: Lethal Dose to 50% of a test population (Median Lethal Dose) (= lethal dose for 50% of a test population (median lethal dose).

N.a.: Not applicable.

NOEC: No observed effect concentration.

NOAEC: No Observed Adverse Effect Concentration.

PBT: Persistent, Bioaccumulative and Toxic.

VPvB: Very Persistent and Very Bioaccumulative.

Key literature references and sources for data

CLP Regulation (EC) 1272/2008, Regulation (EU) 453/2010 and Directive 1999/45/EC with amendments. Guidelines and Instructions for the creation of safety data sheets in the current version (ECHA). Guidelines on labelling and packaging in accordance with Regulation (EC) No. 1272/2008 (CLP) as amended (ECHA). Regulations for the transport of dangerous goods by road, rail, sea and air transport (ADR, RID, IMDG, IATA) in the currently valid version.

Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]

Classification: **Not classified.**

Procedure: On basis of test data made with active substance and/or product. Data evaluated by authorities and experts according to Uniform Principles.

Relevant R-, H- and EUH-phrases (Number and full text)

No H-statements.

Training advice

No specific recommendations.

Additional information

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DISCLAIMER

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