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

1.1 – Product identifier:

Commercial name: **LALGUARD M52 OD**

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

Identified use: (BIO) INSECTICIDE

Use advised against: Higher than that indicated above.

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:

- 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: Aspiration Hazard Category 1

2.2 – Label elements:

Hazard pictogram(s):

Signal word: Danger

Hazard statement(s): H304 – May be fatal if swallowed and enters airways.

Precautionary statement(s): P301 + P310 – IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P331 – Do NOT induce vomiting.

P405 – Store locked up.

P501 – Dispose of contents/container in accordance with national regulations.

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	CLP Classification – Regulation (EC) No 1272/2008
Metarhizium brunneum F52*	None	> 2.0 x 10^9 viable conidia/g	None
Distillates (petroleum), solvent-dewaxed light paraffinic	64742-56-9	> 50%	Asp. Tox. 1

* also known as *Metarhizium brunneum* Ma 43.

The mixture consists of one or more ingredients of unknown toxicity.

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, if available with polyethyleneglycol 400, subsequently rinse with water. 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 at least 15 minutes (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:

To date no symptoms are known.

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

Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is al-ways advisable. There is no specific antidote.

SECTION 5 – FIREFIGHTING MEASURES

5.1 – Extinguishing media:

Suitable:	Foam. Dry powder. Carbon dioxide. Water spray. Sand. Use extinguishing media ap-propriate for surrounding fire.
Unsuitable:	Do not use a heavy water stream.

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 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 4 for recommended equipment.

7.2 – Conditions for safe storage, including any incompatibilities:

Place of storage: Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from food, drink and animal feedingstuffs.

German storage class: 12 Non-Combustible Liquids.

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 known occupational limit values.

Biological limits: Not established.

8.2 – Exposure controls:

Protection of lungs: If product is handled while not enclosed, and if contact may occur:

Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent.

Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Protection of skin: 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.

Protection of hands: Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drink-ing, smoking or using the toilet.

Material	Nitrile rubber
Rate of permeability	> 480 min

	Glove thickness	> 0,4 mm
	Protective index	Class 6
	Directive	Protective gloves complying with EN 374.
Protection of eyes:	Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).	
Environmental exposure:	Special measures are not necessary.	

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

9.1 – Information on basic physical and chemical properties:

Physical state:	Liquid – oil.
Colour:	Not available.
Odour:	Not available.
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:	5,5 – 8,0 (1% at 20°C).
Kinematic viscosity:	Not available.
Solubility:	Not available.
Partition coefficient (n-octanol/water):	Not available.
Vapour pressure:	Not available.
Density and/or relative density:	0.92 - 0.98 g/cm3 (at 20°C).
Relative vapour density:	Not available.
Particle characteristics:	Not available.

9.2 – Other information:

Dynamic viscosity:	150 - 500 mPa s (at 20°C).

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:

No hazardous reactions when stored and handled according to prescribed instructions.

10.4 – Conditions to avoid:

Extremes of temperature and direct sunlight.

10.5 – Incompatible materials:

Acids. Bases. Oxidizing agents. Reducing agents. Disinfectants, fungicides, and/or biocides may inactivate.

10.6 – Hazardous decomposition products:

Thermal decomposition generates: Carbon monoxide. Carbon dioxide. Hydrocarbons. 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:	LD_{50} (Mouse): > 1,72 x 10^8 CFU/animal.
Dermal acute toxicity:	LD_{50} (Rat): > 5000 mg/kg b.w.
Skin corrosion/irritation:	Slightly irritating (Rabbit).
Serious eye damage/irritation:	Not irritating (Chicken).
Pulmonary route:	LD_{50} (Mouse): > 1,03 x 10^8 CFU/animal.
Germ cell mutagenicity:	No data available.
Carcinogenicity:	No data available.
Reproductive toxicity:	No data available.
STOT-single exposure:	No data available.
STOT-repeated exposure:	No data available.
Aspiration hazard:	May be fatal if swallowed and enters airways.

11.2 – Other information:

No further information.

SECTION 12 – ECOLOGICAL INFORMATION

12.1 – Toxicity:

No data available.

12.2 – Persistence and degradability:

No data available.

12. 3 – Bioaccumulative potential:

No data available.

12.4 – Mobility in soil:

No data available.

12.5 – Results of PBT and vPvB assessment:

No data available.

12.6 – Endocrine disrupting properties:

No data available.

12.7 – Other adverse effects:

Avoid release to the environment.

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 – Waste treatment methods:

Product:	In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.
Contaminated packaging:	Not completely emptied packagings should be disposed of as hazardous waste.
Waste key for the unused product:	02 01 08* agrochemical waste containing hazardous substances.

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.

According to ADN/ADR/RID/IMDG/IATA not classified as dangerous goods. No transport in bulk according to the IBC Code.

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

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:

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 by the supplier.

SECTION 16 – OTHER INFORMATION

Method for the mixture classification:	On basis of test data.
Revision summary:	September 2023 – The whole safety data sheet has been revised to align its format and content requirements of Commission Regulation (EU) 2020/878, which amends Annex II of Regulation (EC) 1907/2006 (REACH).
Creation date:	April – 2022

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