

Safety Data Sheet

according to Annex II Regulation (EC) No 1907/2006 (REACH)

Current version: 1.0, issued 30.01.2023

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Trade name: NATURALIS-L

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Mixture name: **NATURALIS-L**.

Product form: mixture.

Product code: NSI012.

IUPAC name: -

Other means of identification

Classification according to Annex VI of Reg. 1272/2008: -

CAS No.: -

EC No.: -

REACH registration No.: -

CIPAC No.: -

Unique formula identifier (UFI): -

Other: -

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

Relevant identified uses

Plant protection product for professional use. Insecticide/acaricide for agriculture.

Uses advised against

All the uses not reported on the label.

Reason why uses advised against

Intended for agricultural usage only, it is dangerous for other purposes.

1.3. Details of the supplier of the safety data sheet

Supplier:

CBC (Europe) S.r.l.

Street address/P.O. Box:

Via Zanica 25

Country ID/Postcode/Place:

24050 Grassobbio (BG), Italy

Telephone number:

+39-035-335313

Fax:

+39-035-335334

e-mail address of competent person responsible for SDS:

infobiogard@cbceurope.it

National contact:

infobiogard@cbceurope.it

1.4. Emergency telephone number

Emergency telephone number: **(+44) 111** National Health Service (NHS).

Opening hours: 24h/7d.

Other comments (e.g. language of the phone service): English.

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP):

Product is not classified.

Classification information:

Classification and labelling are based on toxicological studies on the active substance (substance) and the product (mixture).

Classification and labelling with regards to water pollution risks are based on ecotoxicological studies performed on the active substance (substance) and the product (mixture).

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) 1272/2008 (CLP):

Physical hazards: determined through assessment data based on the methods or standards referred to in Part 2 of Annex I to CLP.

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

For full text of Hazard-, Precautionary- and EU Hazard-statements: see section 16.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008.

Hazard pictograms: -

Signal word: -

Hazardous component(s) to be indicated on the label: -

Hazard statements: -

Precautionary statements:

P102: Keep out of reach of children.

P261: Avoid breathing spray.

P262: Do not get in eyes, on skin, or on clothing.

P271: Use only outdoors or in a wellventilated area.

P280: Wear protective gloves.

P309+P311: IF exposed or if you feel unwell: Call a POISON CENTER or doctor / physician.

Supplemental hazard information:

Micro-organisms may have the potential to provoke sensitizing reactions.

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).

2.3. Other hazards

The product should be handled according to the label and SDS instructions.

PBT assessment: the components of this product are not considered to be PBT.

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vPvB assessment: the components of this product are not considered to be vPvB.

Do not use by people who are highly immunocompromised or under immunosuppressive therapy.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable, the product is not a substance or nanoform.

3.2. Mixtures

Type of formulation:

Liquid plant protection formulation, oil based suspension concentrate (OD).

Active ingredient: *Beauveria bassiana* strain ATCC 74040 (CIPAC 957).

IRAC Mode of Action (MoA) classification: not available.

Substance name	Index no.	EC no.	CAS no.	REACH registration no.	% [weight]	Classification Reg. 1272/2008	SCL, M-Factor, ETA
<i>Beauveria bassiana</i> strain ATCC 74040	-	926-668-1	63428-82-0	Not subject to registration	7.16% (min. 2.3×10 ⁷ CFU/mL)	Not classified. Micro-organisms may have the potential to provoke sensitizing reactions.	-

For full text of Hazard-, Precautionary- and EU Hazard-statements: see section 16.

Not applicable, the product does not contain a nanoform.

Name of (set of) nanoform(s)		-	
		value	unit
Number based particle size distribution	d10	-	
	d50	-	
	d90	-	
Shape and aspect ratio of particles		-	
Crystallinity		-	
Surface functionalisation/-treatment	Agent(s)	-	
	Process	-	
Specific surface area		-	
Additional information		-	

SECTION 4: First aid measures

4.1. Description of first aid measures

General notes:

In the event of any complaints or symptoms, avoid further exposure. Avoid contact with skin and eyes.

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the safety data sheet and/or label of this product.

The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

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In case of animal poisoning, contact your veterinarian.

Route of exposure	First aid	Second aid	Manoeuvres to avoid
Inhalation	Move exposed person from the area to fresh air. Keep the affected person warm and at rest.	If person is not breathing, call an ambulance, then give artificial respiration. Call a poison control centre or physician for further treatment advice.	Avoid mouth-to-mouth contact by using a barrier device.
Skin contact	Take off contaminated clothing or jewellery that have been in contact with the chemical. Rinse skin with plenty of water for 15-20 minutes. Make sure the water is cool.	In case of irritation or rash, call a poison control centre or physician for further treatment advice.	Do not brush away chemicals with your bare hands.
Eye contact	Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Make sure the water is cool. Remove immediately contact lenses, if present.	Call a poison control centre or a physician (ophthalmologist) for further treatment advice.	Do not attempt to manually remove anything from the eyes.
Ingestion	If victim is fully conscious, immediately give plenty of water to drink and rinse the mouth. If vomiting occurs naturally, lie the exposed person on his side, in the recovery position.	Call a poison control centre or physician for further treatment advice.	Do not induce vomiting without medical advice and never give anything by mouth to an unconscious person.

Note: see section 8.2 for the PPE.

Self-protection of the first aider:

Wear suitable PPE (see section 8.2) to protect yourself from exposure to the chemical. Pay attention to self-protection.

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

Acute effects:

Skin: slightly irritating, itchiness.

Nose: no data available.

Eyes: slightly irritating, redness and burning sensation.

Lung: no data available.

Delayed effects:

Skin: no data available.

Brain: no data available.

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

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See section 4.1.

May cause allergic reactions. Therapy: symptomatic.

SECTION 5: Firefighting measures

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies.

Fire extinguishers and wall hydrants (small hose stations) are needed in an adequate number and they must be available and easy to access in all areas.

Eliminate any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation or explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium; all the materials used for the firefighting must be disposed in a proper manner.

5.1. Extinguishing media

Suitable extinguishing media:

Water spray, carbon dioxide (CO₂), dry chemical powder, alcohol resistant foam.

Unsuitable extinguishing media:

IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2. Special hazards arising from the substance or mixture

Combustion or thermal decomposition may generate toxic vapours: nitrogen oxides, carbon oxides, hydrocarbons.

5.3. Advice for firefighters

Firefighting instructions:

Exercise caution when fighting any chemical fire.

Fight fire from safe distance and protected location.

Do not breathe fumes.

Cool closed containers exposed to fire with water spray.

If possible, take the containers out of dangerous zone.

Contain fire-fighting water with dikes or absorbents to prevent migration and entry into sewers, streams or groundwaters. All the materials used for the firefighting must be disposed in a proper manner.

Protection during firefighting:

Wear suitable protective clothing, gloves, eye/face protection and respiratory protection. Wear a self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

The following information shall be addressed to suitably trained personnel working in the installation units where the mixture is normally used and shall be designed to ensure, where possible without risk, preliminary security operations prior to departure and pending emergency response.

Wear appropriate personal protection equipment: protective clothing, gloves, goggles, mouth/face masks. Avoid direct skin or eye contact with the product.

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Persons not involved in emergency response shall be removed from the area affected by the spillage. Contain and/or stop the leak if the operation is safe. Eliminate all possible sources of ignition. If possible, operate over wind.

For emergency responders:

The following information shall be addressed to experienced personnel such as emergency team personnel and, for that purpose, trained personnel.

Wear appropriate personal protection equipment: protective clothing, gloves, goggles, mouth/face masks and in case self-contained breathing apparatus. Avoid direct skin or eye contact with the product.

Persons not involved in emergency response shall be removed from the area affected by the spillage.

Contain and/or stop the leak if the operation is safe. Eliminate all possible sources of ignition.

If possible, operate over wind.

All equipment used during the operation must be grounded. It can also be effective to dilute the spree with water. Avoid formation of dust formation.

Emergency procedure:

Evacuate area.

Avoid direct contact with the mixture.

Contain and/or stop any spills with dikes or absorbents to prevent migration and entry into sewers, streams or groundwater.

Ensure adequate ventilation.

Contact the authorities.

Dispose spill control material and, depending on the product spilled, decontaminate all tools, machines and the area.

6.2. Environmental precautions

In case of an uncontrolled or an incidental spill, regional or national environmental agencies must be immediately notified. Avoid any dispersion of spilled material in soil, waterways, sewage drains.

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local and national health and environmental regulations.

6.3. Methods and material for containment and cleaning up

For containment:

Stop the spill source sealing leaky barrel(s) or container(s).

Use appropriate equipment to block drains, sewer grates or water outlets.

Use absorbent materials (sand, diatomaceous earth, universal binders, sawdust), or pads, or SOC's or mats to prevent the spill from spreading.

For cleaning up:

For small spills, after the spill absorption with pads or absorbent materials, clean up by sweeping with shovels and put in an approved chemical container closed and properly labelled. Seal the container and handle in an approved manner. Try to keep dust to a minimum. Flush the area with water to remove any residues. Do not allow wash water to decontaminate water supplies.

Rinse application equipment thoroughly with water and spray over already treated area. Dispose of in accordance with local regulations for disposal of non-hazardous waste.

Other information:

Check for any local site procedures.

6.4. Reference to other sections

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Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures:

Measures to prevent fire: store in a dry and cold area. Store in original containers and keep containers closed when not in use.

Measures to prevent aerosol and dust generation: store in original containers and keep containers closed when not in use. Open containers should be completely used.

Measures to protect the environment: store in original containers and keep containers closed when not in use.

Advice on general occupational hygiene:

Always wash your hands immediately after handling this product, and once again before leaving the workplace. Remove PPE immediately after handling this product and do not wear gloves into the hallways because it can lead to spreading contamination into the hallways. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Store in a dry area inaccessible to children. Store in original containers and keep containers closed when not in use. Product contains living spores and particular care should be taken to store it properly. Do not store the product in extreme heat or cold temperature in order to avoid loss of potency. Keep out from freezing. The product preferably should be stored at 4-5 °C to retain maximum spore viability.

The product has a guaranteed shelf-life of 1 year at room temperature.

Packaging materials:

Use original packaging; reclose the package if partially used.

Requirements for storage rooms and vessels:

Store in dry, cool, well-ventilated area, or in a refrigerator.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated. Always read the label and product information before use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

In accordance with the order of importance to control professional exposure, it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the professional exposure limits.

The standard protection measures for workers are adequately protecting their health in case material is released or spilled accidentally at the manufacturing facilities.

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Substance name: -		EC number: -		CAS number: -	
<i>Eight-hour time weighted average (TWA): -</i>					
<i>Short-term limits/excursion limits (STEL): -</i>					
<i>Biological limit values/biological guidance values (BLV/BGV): -</i>					
<i>Derived No Effect Level(s) (DNELs)</i>					
Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects	
Oral	Not required				
Inhalation	no hazard identified.	no hazard identified.	no hazard identified.	no hazard identified.	
Dermal	no hazard identified.	no hazard identified.	no hazard identified.	no hazard identified.	
Note: (i) hazard identified but no DNEL available, (ii) no exposure expected, (iii) no hazard identified.					
<i>Predicted No Effect Concentration(s) (PNECs)</i>					
Environmental protection target			PNEC		
Fresh water			no hazard identified.		
Freshwater sediments			no hazard identified.		
Marine water			no hazard identified.		
Marine sediments			no hazard identified.		
Secondary poisoning <i>via</i> food chain			no hazard identified.		
Microorganisms in sewage treatment			no hazard identified.		
Soil (agricultural)			no hazard identified.		
Air			no hazard identified.		
Note: (i) hazard identified but no PNEC available, (ii) no exposure expected, (iii) no hazard identified.					

8.2. Exposure controls

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure ventilation is adequate.

Individual protection measures, such as personal protective equipment:

Use personal protective equipment in accordance with the standards set by European and national regulations.



Eye and face protection: Panoramic glasses against liquid splash.

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Skin protection: Wear impervious gloves resistant to chemical. Replace the gloves at any sign of deterioration. Protective clothing with long sleeves waterproof and resistant to chemicals. Rubber boots.

Respiratory protection: Filter mask for gases, vapours and particles. Replace when an increase in resistance to breathing is observed and/or a small or test of the containment is detected. Particulate filter: P3 (EN143) or Filtering Face Piece: FFP3 (EN149).

Thermal hazards: -

Environmental exposure controls:

Keep away from foodstuffs, beverages and feed. Follow all applicable environmental protection legislation. Discharge into the environment must be avoided. Do not contaminate surface and groundwater.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- a) Physical state: liquid.
- b) Colour: yellowish-brown (RAL 8001).
- c) Odour: characteristic.
- d) Melting point/freezing point: no data available.
- e) Boiling point or initial boiling point and boiling range: no data available.
- f) Flammability (gas, liquids, and solids): no data applicable.
- g) Lower and upper explosion limit: no data available.
- h) Flash point: > 180 °C (EEC A.9).
- i) Auto-ignition temperature (gas and liquids): 405 ± 5 °C (EEC A.15).
- j) Decomposition temperature: no data available.
- k) pH: 6.25 (CIPAC MT 75.3; 1% in demineralised water at ambient temperature).
- l) Kinematic viscosity [mm²/s]: 807 mm²/s (0.483 Pa·s at 50 rpm and 20 °C (OECD 114)).
- m) Solubility: water soluble.
- n) Partition coefficient n-octanol/water (log K_{ow}): no data available.
- o) Vapour pressure: no data available.
- p) Density and/or relative density: 0.97 g/mL (OECD 109).
- q) Relative vapour density (gas and liquids): no data available.
- r) Particle characteristics (solids): no data applicable.

9.2. Other information

Information with regard to physical hazard classes:

- a) Explosives: not explosive, no shock or thermal sensitivity (EEC A.14).
- b) Flammable gases: no data applicable.
- c) Aerosols: no data applicable.
- d) Oxidising gases: no data applicable.

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- e) Gases under pressure: no data applicable.
- f) Flammable liquids: no data applicable.
- g) Flammable solids: no data applicable.
- h) Self-reactive substances and mixtures: no data applicable.
- i) Pyrophoric liquids: no data applicable.
- j) Pyrophoric solids: no data applicable.
- k) Self-heating substances and mixtures: no data applicable.
- l) Substances and mixtures, which emit flammable gases in contact with water: no data applicable.
- m) Oxidising liquids: none of the components of the formulation is outlined in the literature to be oxidative according to EC method A.21. Therefore, it must be stated that there is no evidence for the formulation to propagate oxidation.
- n) Oxidising solids: no data applicable.
- o) Organic peroxides: no data applicable.
- p) Corrosive to metals: no data available.
- q) Desensitised explosives: no data applicable.

Other safety characteristics:

- a) Mechanical sensitivity: no data applicable.
- b) Self-accelerating polymerisation temperature: no data available.
- c) Formation of explosible dust/air mixtures: no data available.
- d) Acid/alkaline reserve: no data applicable.
- e) Evaporation rate: no data available.
- f) Miscibility: no data available.
- g) Conductivity: no data available.
- h) Corrosiveness: no data available.
- i) Gas group: no data applicable.
- j) Redox potential: no data available.
- k) Radical formation potential: no data available.
- l) Photocatalytic properties: no data applicable.

SECTION 10: Stability and Reactivity

10.1. Reactivity

The product is stable at normal handling and storage conditions.

No known hazardous reactions when handled and stored according to stated provisions.

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10.2. Chemical stability

Stable under normal ambient conditions and under the anticipated conditions of use (see section 7). Avoid combining the product with fungicides and avoid too close applications between this product and other fungicides.

10.3. Possibility of hazardous reactions

No particular risks of hazardous reactions under normal conditions. Hazardous polymerization does not occur. Is not explosive and does not exhibit oxidant properties.

10.4. Conditions to avoid

Extreme heat or cold temperature. Keep out from freezing.
Avoid sources of radiation, static electricity.

10.5. Incompatible materials

No additional information available. Store only in the original container.

10.6. Hazardous decomposition products

Combustion or thermal decomposition may generate toxic vapours: nitrogen oxides, carbon oxides, hydrocarbons.

SECTION 11: Toxicological Information

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

a) Acute toxicity:

LD₅₀ (oral, rat):

Substance: LD₅₀ > 1.9×10⁸ CFU/animal. Spores still detectable in faeces after 14 days. Not toxic, pathogenic or infective.

Method: US EPA OPP 152A-10 (comparable to OPPTS 885.3050).

Mixture: Not toxic, pathogenic or infective.

Method: US EPA 152A-10 (comparable to EC B.1).

LD₅₀ (dermal, rabbit):

Substance: Slightly skin irritating. Not systemic toxicity, no pathogenic or infective.

Method: OECD Guideline 402.

Mixture: LD₅₀ > 2000 mg/kg bw/day. Not toxic, pathogenic or infective.

Method: OECD Guideline 402.

LC₅₀ (inhalation, rat):

Substance: LD₅₀ > 2.5×10⁹ CFU/animal. Clearance from lung tissue completed by day 15 post dosing. No pathogenic or infective.

Method: US EPA Guideline 152A-12.

b) Skin corrosion/irritation (rabbit): not irritating (FIFRA152-14; mixture).

c) Serious eye damage/irritation (rabbit): not irritating (US EPA 152A-14, US EPA 40 CFR 158; mixture).

d) Respiratory or skin sensitisation (guinea pig): non-sensitizing (OECD 406; mixture). Warning phrase: "Contains *Beauveria bassiana* ATCC 74040. Micro-organisms may have the potential to provoke sensitising reactions".

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- e) Germ cell mutagenicity: not mutagenic (OECD 471; substance).
- f) Carcinogenicity: no data available.
- g) Reproductive toxicity: no data available.
- h) Summary of evaluation of the CMR properties: the product is not mutagenic.
- i) STOT-single exposure: no data available.
- j) STOT-repeated exposure: no data available.
- k) Aspiration hazard: no data available.

Conclusion: based on the available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties:

No data available.

Other information:

No data available.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity:

Birds (Northern bobwhite, 5-days dosing, 25 days observation):

Substance: LD₅₀ > 2667 mg/kg bw/day corresponding to > 6.85×10¹⁰ CFU/kg bw/day. No observed external signs of pathogenicity. No findings of the gross necropsy.

Method: FIFRA Guideline 154A-16.

Mammals (rat; oral):

Mixture: LD₅₀ > 1.9×10⁸ CFU/animal. Spores still detectable in faeces at end of study on day 14. No evidence of toxicity, pathogenicity, or infectivity.

Method: US EPA OPP 152A-10.

Fish (Pimephales promelas, 30 day):

Substance: NOEC < 1×10⁹ CFU/L (survival of 26 days post hatch; larval growth).

Method: FIFRA Guideline 154A-19.

Aquatic invertebrates (Daphnia magna, 21 days):

Substance: EC₅₀ = 9.9×10⁷ CFU/L, NOEC = 7.6×10⁷ CFU/L (227 mg a.s./L). Effects are not considered to be related to pathogenicity.

Method: FIFRA Guideline 154A-20.

Algae/aquatic plants (Pseudokirchneriella subcapitata, 3 days):

Mixture: E_rC₅₀ > 100 mg/L, E_bC₅₀ > 100 mg/L, NOE_bC < 100 mg/L, NOE_rC ≥ 100 mg/L (100 mg corresponds to 2.3×10⁶ CFU/L).

Method: OECD 201.

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Bees (*Apis mellifera*, 30 days):

Substance: averaged survival rates 92% in the untreated control, 78% in the attenuated control, 78% among treated honeybees.

Method: FIFRA Guideline 154A-24.

Bumblebees (dermal contact, orally via sugar water, orally via pollen):

Substance: $LC_{50} > 3.45 \times 10^7$ CFU/L.

Non-target arthropods:

Aphidius rhopalosiphi (adult):

Mixture: LR_{50} 68.9 g a.i./ha (0.997 L Naturalis/ha) corresponding to 2.3×10^{10} CFU/ha; NOEC = 24 g a.i./ha (0.347 L Naturalis/ha).

Method: IOBC/WPRS.

Typhlodromus pyri (adult):

Mixture: LR_{50} = 402.1 g a.i./ha equivalent to 5.819 L Naturalis/ha (Mortality) and corresponding to 1.34×10^{11} CFU/ha. ER_{50} = 81 g a.i./ha equivalent to 1.1 L Naturalis-L/ha (Fecundity) and corresponding to 2.53×10^{10} CFU/ha. NOEC = 50 g MPCA/ha (0.723 L Naturalis/ha).

Method: IOBC/WPRS.

Aphidius rhopalosiphi (adult):

Mixture: LR_{50} > 13.66 L/ha mortality and ER_{50} > 13.66 L/ha reproduction equivalent to > 1000 g a.i./ha and corresponding to $> 3.14 \times 10^{11}$ CFU/ha.

Method: IOBC/WPRS.

Soil macroorganisms (Earthworms (*Eisenia foetida*)):

Mixture: LC_{50} > 1000 mg Naturalis/kg artificial soil corresponding to $> 2.3 \times 10^7$ CFU/kg artificial soil.

Method: OECD 207.

Soil microorganisms:

Mixture: 1.29 and 12.87 mg Naturalis/kg soil dry weight, corresponding to 1 and 10 L Naturalis/ha or 0.092 and 0.92 mg as/kg or 2.98×10^4 and 29.8×10^4 CFU/kg, silty sand soil (pH 6.70).

Short-term respiration:

Deviation from control after 28 days < 25% in both concentrations.

Nitrogen turnover:

Deviation from control in the lower concentration after 28 days: < 25% Deviation from control at highest concentration after 28 days: > 25%.

Deviation from control at highest concentration after 56 days: < 25%.to be filled by the user.

Method: OECD 216 & 217.

12.2. Persistence and degradability

Abiotic degradation:

This product has low persistence and their components are easily degradable. *Beauveria bassiana* strain ATCC 74040 shows a rapid loss of activity in response to UV light; increasing humidity also contributes to this reduction.

Physical- and photo-chemical elimination:

Rapid loss of activity in response to UV light.

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Biodegradation:

No data available.

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log K_{ow}): see section 9.1.

No data available.

Bioconcentration factor (BCF):

No data available.

12.4. Mobility in soil

Known or predicted distribution to environmental compartments:

Conidia of *Beauveria bassiana* strain ATCC 74040 are not very mobile in soil and generally remain on the surface of soil. The movement of conidia vertically, through the soil profile, is positively correlated with high infiltration rates in soil. Therefore, the risk of groundwater contamination is considered negligible.

Surface tension:

35.6 mN/m (OECD 115).

Adsorption/Desorption:

Conidia of *Beauveria bassiana* strain ATCC 74040 are not very mobile in soil and generally remain on the surface of soil.

12.5. Results of PBT and vPvB assessment

PBT assessment: the components of this product are not considered to be a PBT.

vPvB assessment: the components of this product are not considered to be a vPvB.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No additional information available.

SECTION 13: Disposal considerations

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations.

13.1. Waste treatment methods

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. Advice may be obtained from the local waste regulation Authority.

Product / Packaging disposal:

Product: dispose of the product after assessing reuse in the same or another production cycle. Dispose of the product in a manner most compatible with the environment and in accordance with local or state laws, the product may be taken to a waste disposal site or incineration plant.

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Disposal: Small containers (< 10 L or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times. Add washings to sprayer at time of filling. Dispose of empty and cleaned packaging safely. Dispose of the clean containers in a manner most compatible with the environment and in accordance with local or state laws, reusing parts and recycling components and materials when possible. Do not rinse and re-use large containers (> 25 L or > 25 kg).

Waste codes / waste designations according to LoW: data not available.

Waste treatment-relevant information:

Dispose of the clean containers in a manner most compatible with the environment and in accordance with local or state laws.

Sewage disposal-relevant information:

Release to the environment or sewage system is strictly forbidden.

Other disposal recommendations:

No additional information.

SECTION 14: Transport information

Product is not classified as hazardous in accordance with the provisions of the current legislation governing the transport of dangerous goods by road (ADR), by Rail (RID), by sea (IMDG Code) and by air (IATA).

14.1. UN number or ID number

No dangerous good in sense of transport regulations.

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

No additional information available.

14.6. Special precautions for user

No additional information available.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

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SECTION 15: Regulatory information

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

EU regulations:

Regulation (EC) 1107/2009.

Regulation 1272/2008 (CLP).

Regulation 1907/2006 (REACH).

Directive 2012/18/UE.

Authorisations and/or restrictions on use:

Authorisations: MAPP No. 17526.

Restrictions on use: -

Lista SVHC List: no component of the mixture is on the list of substances of very high concern.

Directive 2012/18/UE: -

Other EU regulations:

-

Other National regulations:

-

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier according to article 14 of Regulation (EC) No. 1907/2006.

SECTION 16: Other information

Revision Date: -

Indication of changes: -

Key literature references and sources for data:

Regulation (EC) 1107/2009 of the European Parliament as amended in each case.

Regulation (EC) 1272/2008 of the European Parliament (CLP) as amended in each case.

Regulation (EC) 1907/2006 of the European Parliament (REACH) as amended in each case.

Directive 2012/18/UE of the European Parliament as amended in each case.

Regulations concerning the ADR, RID, IMDG and IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

ADN: Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

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ATE: Acute Toxicity Estimate.

BLV/BGV: Biological limit values/biological guidance values.

CAS: Chemical Abstract Service number.

CLP: Classification, Labelling Packaging Regulation.

DNEL: Derived No-effect level.

ECHA: European Chemicals Agency.

EC-Number: EINECS and ELINCS Number.

IATA: International Air Transport Association.

IMDG: International Maritime Dangerous Goods.

IUPAC: International Union for Pure Applied Chemistry.

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

LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).

LoW: List of Wastes.

PBT: Persistent, Bioaccumulative and Toxic substance.

PPE: Personal Protection Equipment.

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.

STEL: Short-term limits/excursion limits.

STOT: Specific Target Organ Toxicity.

(STOT) RE: Repeated Exposure.

(STOT) SE: Single Exposure.

vPvB: Very Persistent and Very Bioaccumulative.

SVHC: Substances of Very High Concern.

TWA: Eight-hour time weighted average.

Relevant H-statements (number and full text): -

Relevant P-statements (number and full text): see section 2.1.

P261: Avoid breathing spray.

P262: Do not get in eyes, on skin, or on clothing.

P271: Use only outdoors or in a wellventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P309+P311: IF exposed or if you feel unwell: Call a POISON CENTER or doctor / physician.

Supplemental hazard information (number and full text): see section 2.1

Micro-organisms may have the potential to provoke sensitizing reactions.

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).

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Training advice:

In addition to training programs on the environment, health and safety for their workers, companies must ensure that workers read, understand, and apply the requirements of this SDS.

Safety Data Sheet in according to Regulation (EC) 878/2020 and Regulation (EC) 1272/2008 (CLP).

The above information is intended to give general health and safety guidance on the storage and transport of the product. It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with. The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given. The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate. No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.