

SAFETY DATA SHEET**PRODUCT: Optimum RHIZO**

(in accordance with Regulation (EU) 2020/878)

Date of issue: 18/01/2022**Date of revision: 29/01/2025****Version: 1.002****1. PRODUCT INFORMATION**

1.1 Product Identifier:	Optimum RHIZO
1.2 Relevant uses:	Microbial plant Biostimulant for seed and soil application
1.3 Supplier details:	
Company Details	
Name: Ad Terram Treatment Technologies B.V.	Emergency Tel. No. +31(0)228 593813 (after hours)
Address: Kleingouw 126, 1619 CJ, ANDIJK	Postal Address: Kleingouw 126, 1619 CJ, ANDIJK
Tel. No. +31 (0)228 593813 E-mail Address: info@ad-terram.nl	

2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture:**

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

2.2 Label elements:

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on labelling.

2.3 Other hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. COMPOSITION**3.1 Substances**

Non-Pathogenic Bacteria:

Rhizobium spp. (Bradyrhizobium Japonicum, Bradyrhizobium Lupini, Rhizobium Leguminosarum)

3.2 Mixtures

N/A

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4. FIRST AID MEASURES

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

4.1 First aid measures

Product In Eye:	Ager eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
Product On Skin:	In case of skin contact wash with soap and water. In case of allergic reaction seek medical advice.
Product Ingested:	If swallowed: give water to drink (two glasses at most). Seek medical advice immediately.
Product Inhalation:	If breathing stops, seek emergency medical attention. Move to fresh air if discomfort is felt.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE FIGHTING MEASURES

The product is NOT classified as flammable, in case of fire the following measures should be taken:

5.1 Extinguishing Media Suitable extinguishing media:	Suitable extinguishing media: Water jet, Dry powder or Water fog.
Unsuitable extinguishing media:	For this substance/mixture no limitations of extinguishing agents are given.
5.2 Special hazards	
Special risks:	Nature of decomposition products not known.
5.3 Advice for firefighters	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
5.4 Further information Suppress (knock down) gases/vapors/mists with a water spray jet.	Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:	Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance
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	contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
6.2 Environmental Precautions:	Not applicable
6.3 Methods and materials for containment and cleaning up:	Wait for dust to settle. Sweep up the floor and if required wash with soap and water or detergent.
6.4 Reference to other sections:	For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling:	Advice on safe handling Do not inhale substance/mixture. Hygiene measures Wash hands and face after working with substance.
7.2 Conditions for safe storage, including any incompatibilities:	Tightly closed. Dry. Keep in a well-ventilated place.
7.3 Specific end use	Not available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
8.1 Control Parameters:

Not applicable (no Workplace exposure limit)

8.2 Exposure controls
Measures of a technical nature:

Personal protective equipment: May use protective clothing when handling (for eye, skin, body and respiratory protection).

9. PHYSICAL AND CHEMICAL PROPERTIES
9.1 Information on basic physical and chemical properties

Appearance:	Powder
Colour:	Whitish
Odour:	Slight odor
Odour threshold:	N.A./N.A
pH:	Neutral
Melting point:	N.A./N.A
Boiling point:	N.A./N.A
Flash point:	N.A./N.A
Evaporation rate:	N.A./N.A
Inflammability (solid, gas)	N.A./N.A
Lower Explosive Limit:	N.A./N.A
Upper Explosive Limit:	N.A./N.A



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Vapour pressure:	N.A./N.A
Vapour density:	N.A./N.A
Relative density:	N.A./N.A
Solubility:	Insoluble
Lip solubility:	N.A./N.A
Hydrosolubility:	N.A./N.A
Partition coefficient (n-octanol/water):	N.A./N.A
Auto-ignition temperature:	N.A./N.A
Decomposition temperature:	N.A./N.A
Viscosity:	N.A./N.A
Explosive properties:	N.A./N.A
Oxidizing properties:	N.A./N.A

N.A./N.A.= Not Available/Not Applicable due to the nature of the product

9.2 Other information.

Not applicable/Not available due to the nature/properties of the product

10. STABILITY AND REACTIVITY

10.1 Reactivity:	The product does not present hazards by their reactivity
10.2 Chemical Stability:	Not applicable
10.3 Possibility of hazardous reactions	Not applicable
10.4 Conditions To Avoid:	None
10.5 Incompatible materials	None
10.6 Hazardous decomposition products	None

11. TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

- a) Acute toxicity: No data available
- b) Skin corrosion/irritation: No data available
- c) Serious eye damage/eye irritation: No data available
- d) Respiratory or skin sensitization: No data available
- e) Germ cell mutagenicity: No data available
- f) Carcinogenicity: No data available
- g) Reproductive toxicity: No data available
- h) Specific target organ toxicity - single exposure: No data available

11.2 Information on other hazards.

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Endocrine disrupting properties

This product does not contain components with endocrine-disrupting properties with effects on human health.

Other information

There is no information available on other adverse health effects.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity:	Test studies have shown that the product is not dangerous to the environment with respect to mobility, persistency and degradability, bio-accumulative potential, aquatic toxicity and other data relating to eco-toxicity.
12.2 Persistence and biodegradability:	No data available
12.3 Bioaccumulative potential: Information about the bioaccumulation of the substances present.	No data available
12.4 Mobility in soil:	No data available
12.5 Results of PBT and vPvB assessment:	No data available
12.6 Other adverse effects	No data available
12.7 Other advised effects	No data available

13. DISPOSAL CONSIDERATION

13.1 Waste treatment methods:	Small quantities of waste are disposed of as domestic refuse. Greater quantities are disposed of in accordance with the local regulations.
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14. TRANSPORT INFORMATION**14.1 UN number.**

Not applicable

14.2 UN proper shipping name.

Not applicable

14.3 Transport hazard class(es).

Transportation is not dangerous ADR, RID, IMO and IATA.

14.4 Packing group.

Not applicable



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14.5 Environmental hazards.

ADR/RID: No IMDG Marine pollutant: No IATA: NO

14.6 Special precautions for user.

None

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. The preparation is not classified as "dangerous" according to the criteria of Council Directives 67/548/EEC (Annex VI of Directive 2001/59/EC) and 1999/45/EC. Microbial classification The preparation is not deemed 'hazardous' according to the requirements of Council Directive 2000/54/ EEC. Bacteria contained in this preparation are designated Class 1 according to Council Directive 90/679/EEC (as amended by Council Directive 93/88/EEC) and all other recognized classification systems for micro-organisms.

15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16. OTHER INFORMATION

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use. Health and safety information is directed towards the safe use rather than the commercial performance of the product.

Changes to documentation:

29/01/2025: Revised SDS document according to Regulation (EU) 2020/878

