SAFETY DATA SHEET

PRODUCT: RHIZAL Tr 1

Version dated July 06 2023 Index 1

1. IDENTIFICATION OF THE PREPARATION AND THE COMPANY

1-1 Identification of the preparation

Commercial name: **RHIZAL**

1-2 Nature of the substance

Biostimulant based on living microorganism

1-3 Identification of the company

EFIKA
Address: ZA Sainte Anne ; 85600 LA BOISSIERE DE MONTAIGU, FR
Telephone: NA
Mail: contact@efika-solutions.fr

1-4 Emergency telephone number

INRS (French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases) telephone No.: (33) 01 45 42 59 59

Other emergency numbers

Antipoison center	Netherlands	030 274 88 88
Centre Antipoison	France	01 45 42 59 59
Antipoison Center	United Kingdom	111
Antipoison Center	Ireland	01 809 21 66
Antipoison Center	Germany	030 19 240
Antipoison Center	Spain	091 562 04 20
Antipoison Center	Portugal	800 250 250
Antigif Centrum	Belgique	070 245 245

2. HAZARDS IDENTIFICATION

2-1 Classification of the mixture or substance

In compliance with EC regulation No. 1272/2008 and its amendments.

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2-2 Label elements

Micro-organisms are not substances within the meaning of the REACH (Regulation (EC Regulation No. 1907/2006) and CLP (Regulation (EC) regulations No. 1272/2008).

This mixture is not subject to SDS within the meaning of the regulations in force.

In compliance with EC regulation No. 1272/2008 and its amendments.

No labelling requirements for this mixture.

2-3 Other hazards

In use, may form flammable/explosive dust-air mixture.

Contains *Rhizobia*. Microorganisms can cause sensitization reactions.
This product should not be used by people who are severely immunocompromised or on immunosuppressive therapy.

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances> = 0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

3. COMPOSITION & INFORMATION ON INGREDIENTS

3-2 Mixtures

No substances fulfil the criteria set forth in annexe II section A of the REACH regulation (EC) n° 1907/2006

4. FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4-1 Description of first aid measures

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of swallowing :

Seek medical attention, showing the label.

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

Non-flammable.

5-1 Appropriate extinguishing media

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist

Unsuitable methods of extinction

In the event of a fire, do not use :

- powder
- water jet
- foam

5-2 Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO2)
- sulphur dioxide (SO2)

Combustible dust: May form an explosive mixture in air.

5-3 Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus..

6. ACCIDENTAL RELEASE MEASURES

6-1 Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6-2 Environmental precautions

Prevent any material from entering drains or waterways.

6-3 Methods and material for containment and cleaning up

Contain and gather up any leaks into drums using non-combustible inert materials, with a view to disposing of the waste in accordance with the regulations in force. Do not generate dust.

Clean the floor, preferably with water and a disinfecting detergent.

7. HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7-1 Precautions for safe handling

- Technical measures: Follow the personal protection instructions; see section 8. Rooms in which dust may be generated must be identified by zones and equipped according to the ATEX Directive.
- Precautions: Avoid the formation or dispersal of dust into the atmosphere (risk of explosion).

- User instructions: General recommendations regarding handling powder products. Any handling and/or storage of products must be suited to the characteristics of each product, with these characteristics being considered to be known to the client; the latter shall be the sole party responsible and must therefore implement every measure aimed at ensuring avoidance of any risk of an accident (particularly of an explosion) and/or deterioration of the aforementioned product.
- Always wash hands after handling
- Fire prevention : prevent access by unauthorised personnel
- Recommended equipment and procedures : for personnal protection, see section 8. Observe precautions stated on label and also industrial safety regulations.
- Prohibited equipment and procedures : No smoking, eating or drinking in areas where the mixture is used.

7-2 Conditions for safe storage, including any incompatibilities

In a cool environment (4 to 20°C).

- Incompatible materials: Bactericides and/or fungicides.
- Packaging materials: High Density Polyethylene (HDPE).

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8-1 Control parameters

Comply with the national regulations applicable to total nonspecific dust.

8-2 Exposure controls

Appropriate engineering controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

- Body protection

Suitable type of protective clothing :

Suitable type of protective boots :

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid inhaling dust.

Type of FFP mask : - FFP3

Wear a disposable half-mask dust filter in accordance with standard EN149/A1.

9. PHYSICAL AND CHEMICAL PROPERTIES

9-1 Information on basic physical and chemical properties

Physical state

Physical state : Powder or dust.

Colour

White / beige

Odour

Odour threshold : Not stated.

Melting point

Melting point/melting range : Not relevant.

Freezing point

Freezing point / Freezing range : Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range : Not relevant.

Flammability

Flammability (solid, gas) : Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) : Not stated.

Explosive properties, upper explosivity limit (%) : Not stated.

Flash point

Flash point interval : Not relevant.

Auto-ignition temperature

Self-ignition temperature : Not relevant.

Decomposition temperature

Decomposition point/decomposition range : Not relevant.

pH

pH (aqueous solution) : Not stated.

pH : Not relevant.

Kinematic viscosity

Viscosity : Not stated.

Solubility

Water solubility : Soluble.

Method for determining the water solubility :

Fat solubility : Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water : Not stated.

Vapour pressure

Vapour pressure (50°C) : Below 110 kPa (1.10 bar).

Density and/or relative density

Density : > 1

Relative vapour density

Vapour density : Not stated.

Particle characteristics

10. STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid :

- formation of dusts

Dusts can form an explosive mixture with air.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO2)

11. TOXICOLOGICAL INFORMATION

11-1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

No data available.

11.1.1. Substances

No toxicological data available for the substances.

11.1.2. Mixture

No toxicological data available for the mixture.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

No data available.

12.2.1. Substances

12.2.2. Mixtures

12.3. Bioaccumulative potential

No data available.

12.3.1. Substances

12.3.2. Mixtures

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

No data available

13. DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

14. TRANSPORT INFORMATION

Exempt from transport classification and labelling.

14.1. UN number or ID number

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14.2. UN proper shipping name

-

14.3. Transport hazard class(es)

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14.4. Packing group

-

14.5. Environmental hazards

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14.6. Special precautions for user

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14.7. Maritime transport in bulk according to IMO instruments

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15. REGULATORY INFORMATION

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

Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

Container information:

No data available.

Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH): https://echa.europa.eu/substances-restricted-under-reach.

Explosives precursors :

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

Particular provisions :

In Germany, TRBA 466 dated August 2015 states that it is unlikely that the bacteria of the group *Rhizobia* are responsible for an infectious disease in humans. *Rhizobia* are not among the microorganisms known to cause infectious diseases in humans listed in Annex I of Directive 2000/54/EC of 18 September 2000.

Substances that deplete the ozone layer (EC Regulation No. 1005/2009, Montreal Protocol) :

CAS	Substance	Group	Formula	Category	ODP

Persistent organic pollutants (POP) (Regulation (EU) 2019/1021):

Swiss ordinance on the incentive tax on volatile organic compounds :

15.2. Chemical safety assessment

No data available

16. OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 :

Abbreviations and acronyms :

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefahrdungsklasse (Water Hazard Class).

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.