

# Safety data sheet

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BASF Safety data sheet according to UN GHS 4th rev.

Date / Revised: 02.12.2022

Version: 1.0

Product: **Component A of Rhizoflo Professional**

(ID no. 30653529/SDS\_GEN\_ZA/EN)

Date of print 15.01.2024

## 1. Identification

### Product identifier

## Component A of Rhizoflo Professional

### Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: fertilizers

### Details of the supplier of the safety data sheet

Company:

BASF South Africa (Pty) Ltd  
852 Sixteenth Road  
Midrand  
P O Box 2801  
Halfway House 1685  
SOUTH AFRICA

Telephone: +27 11 203 2400

### Emergency telephone number

National emergency number:

+27 11 203 2420

International emergency number:

Telephone: +49 180 2273-112

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## 2. Hazards Identification

### Classification of the substance or mixture

According to UN GHS criteria

No need for classification according to GHS criteria for this product.

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## Label elements

### Globally Harmonized System (GHS)

Precautionary Statement:

P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P103 Read carefully and follow all instructions.

The product does not require a hazard warning label in accordance with GHS criteria.

Labeling of special preparations (GHS):

May produce an allergic reaction. Contains: 1,2-Benzisothiazol-3(2H)-one, mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

## Other hazards

According to UN GHS criteria

See section 12 - Results of PBT and vPvB assessment.

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

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## 3. Composition/Information on Ingredients

### Substances

Not applicable

### Mixtures

Chemical nature

soil improver

Hazardous ingredients (GHS)

According to UN GHS criteria

1,2-Benzisothiazol-3(2H)-one

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Content (W/W): < 0.05 %  
 CAS Number: 2634-33-5  
 EC-Number: 220-120-9  
 INDEX-Number: 613-088-00-6

Acute Tox. 4 (oral)  
 Skin Corr./Irrit. 2  
 Eye Dam./Irrit. 1  
 Skin Sens. 1  
 Aquatic Acute 1  
 Aquatic Chronic 1  
 M-factor acute: 1  
 M-factor chronic: 1  
 H318, H315, H302, H317, H400, H410

Specific concentration limit:

Skin Sens. 1: &gt;= 0.05 %

mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Content (W/W): < 0.0015 %  
 CAS Number: 55965-84-9  
 INDEX-Number: 613-167-00-5

Acute Tox. 3 (oral)  
 Acute Tox. 2 (Inhalation - mist)  
 Acute Tox. 2 (dermal)  
 Skin Corr./Irrit. 1C  
 Eye Dam./Irrit. 1  
 Skin Sens. 1A  
 Aquatic Acute 1  
 Aquatic Chronic 1  
 M-factor acute: 100  
 M-factor chronic: 100  
 H301, H317, H314, H310 + H330, H400, H410  
 EUH071

Specific concentration limit:

Skin Sens. 1A: >= 0.0015 %  
 Eye Dam./Irrit. 1: >= 0.6 %  
 Eye Dam./Irrit. 2: 0.06 - < 0.6 %  
 Skin Corr./Irrit. 1C: >= 0.6 %  
 Skin Corr./Irrit. 2: 0.06 - < 0.6 %

Dipotassium hydrogenorthophosphate

Content (W/W): < 5 %  
 CAS Number: 7758-11-4  
 EC-Number: 231-834-5

White mineral oil (petroleum)

Content (W/W): < 50 %  
 CAS Number: 8042-47-5  
 EC-Number: 232-455-8

Sucrose

Content (W/W): < 50 %  
 CAS Number: 57-50-1  
 EC-Number: 200-334-9

For the classifications not written out in full in this section the full text can be found in section 16.

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## 4. First-Aid Measures

### Description of first aid measures

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Rinse mouth and then drink 200-300 ml of water.

### Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

### Indication of any immediate medical attention and special treatment needed

Treatment: Symptomatic treatment (decontamination, vital functions).

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## 5. Fire-Fighting Measures

### Extinguishing media

Suitable extinguishing media:

water spray, dry powder, foam, carbon dioxide

### Special hazards arising from the substance or mixture

Carbon monoxide, Carbon dioxide, Hydrogen chloride, Hydrogen bromide, nitrogen oxides, halogenated compounds, phosphorus oxides, potassium oxides

The substances/groups of substances mentioned can be released in case of fire.

### Advice for fire-fighters

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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## 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

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Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

### **Environmental precautions**

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

### **Methods and material for containment and cleaning up**

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

For large amounts: Dike spillage. Pump off product.

Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

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## **7. Handling and Storage**

### **Precautions for safe handling**

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

### **Conditions for safe storage, including any incompatibilities**

Segregate from foods and animal feeds.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

### **Specific end use(s)**

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

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## **8. Exposure Controls/Personal Protection**

### **Control parameters**

#### Components with occupational exposure limits

No occupational exposure limits known.

### **Exposure controls**

#### Personal protective equipment

Respiratory protection:

Respiratory protection not required.

Hand protection:

Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

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Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

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## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Form:	liquid
Colour:	product specific
Odour:	odourless
Odour threshold:	not applicable, odour not perceivable
pH value:	approx. 7 - 9.5 (20 °C)
Melting temperature:	approx. 0 °C Information applies to the solvent.
boiling temperature:	approx. 100 °C Information applies to the solvent.
Flash point:	> 100 °C
Evaporation rate:	not applicable
Flammability:	not applicable
Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Ignition temperature:	Based on the water content the product does not ignite.
Vapour pressure:	approx. 23.4 hPa (20 °C) Information applies to the solvent.
Density:	approx. 1.0 - 1.3 g/cm <sup>3</sup> (20 °C)

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Relative vapour density (air):  
not applicable

Solubility in water: dispersible

Partitioning coefficient n-octanol/water (log Kow):  
not applicable

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Viscosity, kinematic:  
Forms a viscous solution.

Explosion hazard:  
Based on the chemical structure  
there is no indication of explosive  
properties.

Fire promoting properties: Based on its structural properties  
the product is not classified as  
oxidizing.

### Other information

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section.

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## 10. Stability and Reactivity

### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

### Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

### Conditions to avoid

See SDS section 7 - Handling and storage.

### Incompatible materials

Substances to avoid:

strong acids, strong bases, strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

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## 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

Assessment of acute toxicity:

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Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact. The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 1,2-Benzisothiazol-3(2H)-one*

*Experimental/calculated data:*

*LD50 rat (oral): 490 mg/kg (similar to OECD guideline 401)*

*Information on: mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)*

*Experimental/calculated data:*

*LC50 rat (by inhalation): 0.33 mg/l 4 h (OECD Guideline 403)*

*An aerosol was tested.*

*Information on: 1,2-Benzisothiazol-3(2H)-one*

*Experimental/calculated data:*

*LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)*

*No mortality was observed.*

#### Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes. The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 1,2-Benzisothiazol-3(2H)-one*

*Experimental/calculated data:*

*Skin corrosion/irritation rabbit: Irritant. (other)*

*Literature data.*

*Information on: 1,2-Benzisothiazol-3(2H)-one*

*Experimental/calculated data:*

*Serious eye damage/irritation rabbit: irreversible damage (other)*

*Literature data.*

#### Respiratory/Skin sensitization

Assessment of sensitization:

There is no evidence of a skin-sensitizing potential. The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 1,2-Benzisothiazol-3(2H)-one*

*Assessment of sensitization:*

*Sensitization after skin contact possible.*

*Information on: mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)*

*Assessment of sensitization:*



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*Sensitization after skin contact possible.*  
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#### Germ cell mutagenicity

Assessment of mutagenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

#### Carcinogenicity

Assessment of carcinogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

#### Reproductive toxicity

Assessment of reproduction toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

#### Developmental toxicity

Assessment of teratogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

#### Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.

#### Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)*

*Assessment of repeated dose toxicity:*

*After repeated exposure the prominent effect is local irritation. Based on available data, the classification criteria are not met.*

*Information on: Dipotassium hydrogenorthophosphate*

*Assessment of repeated dose toxicity:*

*The substance may lead to shifts in blood composition following repeated exposure in animal experiments. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

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Aspiration hazard

No aspiration hazard expected.

The product has not been tested. The statement has been derived from the properties of the individual components.

Other relevant toxicity information

Misuse can be harmful to health.

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## 12. Ecological Information

### Toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 1,2-Benzisothiazol-3(2H)-one*

*Toxicity to fish:*

*LC50 (96 h) 2.15 mg/l, Oncorhynchus mykiss (OECD Guideline 203, static)*

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*Information on: 1,2-Benzisothiazol-3(2H)-one*

*Aquatic invertebrates:*

*EC50 (48 h) 2.9 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)*

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*Information on: 1,2-Benzisothiazol-3(2H)-one*

*Aquatic plants:*

*EC50 (96 h) 0.110 mg/l, Pseudokirchneriella subcapitata (OECD Guideline 201, static)*

*No observed effect concentration (96 h) 0.040 mg/l, Pseudokirchneriella subcapitata (OECD Guideline 201, static)*

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### Persistence and degradability

Assessment biodegradation and elimination (H<sub>2</sub>O):

The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 1,2-Benzisothiazol-3(2H)-one*

*Elimination information:*

*85 % CO<sub>2</sub> formation relative to the theoretical value (63 d) (OECD 301C; ISO 9408; 92/69/EEC, C.4-F) (aerobic, activated sludge, domestic, adapted)*

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### Bioaccumulative potential

Assessment bioaccumulation potential:

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The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 1,2-Benzisothiazol-3(2H)-one*

*Bioaccumulation potential:*

*Bioconcentration factor: 6.62 (56 d), Lepomis macrochirus (measured)*

### **Mobility in soil**

Assessment transport between environmental compartments:

Adsorption in soil: Adsorption to solid soil phase is expected. The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 1,2-Benzisothiazol-3(2H)-one*

*Assessment transport between environmental compartments:*

*Volatility: The substance will not evaporate into the atmosphere from the water surface.*

*Adsorption in soil: Adsorption to solid soil phase is not expected.*

### **Results of PBT and vPvB assessment**

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

### **Other adverse effects**

The product does not contain substances that are listed in the Montreal Protocol on substances that deplete the ozone layer.

### **Additional information**

Other ecotoxicological advice:

Do not discharge product into the environment without control.

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## **13. Disposal Considerations**

### **Waste treatment methods**

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

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## **14. Transport Information**

### **Land transport**

ADR

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UN number or ID number: Not classified as a dangerous good under transport regulations  
UN proper shipping name: Not applicable  
Transport hazard class(es): Not applicable  
Packing group: Not applicable  
Environmental hazards: Not applicable  
Special precautions for user: None known

#### RID

UN number or ID number: Not classified as a dangerous good under transport regulations  
UN proper shipping name: Not applicable  
Transport hazard class(es): Not applicable  
Packing group: Not applicable  
Environmental hazards: Not applicable  
Special precautions for user: None known

#### **Inland waterway transport**

##### ADN

UN number or ID number: Not classified as a dangerous good under transport regulations  
UN proper shipping name: Not applicable  
Transport hazard class(es): Not applicable  
Packing group: Not applicable  
Environmental hazards: Not applicable  
Special precautions for user: None known

#### Transport in inland waterway vessel

Not evaluated

#### **Sea transport**

##### IMDG

UN number or ID number: Not classified as a dangerous good under transport regulations  
UN proper shipping name: Not applicable  
Transport hazard class(es): Not applicable  
Packing group: Not applicable  
Environmental hazards: Not applicable  
Special precautions for user: None known

#### **Air transport**

IATA/ICAO

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	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

### Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

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## 15. Regulatory Information

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

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## 16. Other Information

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
Skin Sens.	Skin sensitization
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
H318	Causes serious eye damage.
H315	Causes skin irritation.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H310 + H330	Fatal in contact with skin or if inhaled
EUH071	Corrosive to the respiratory tract.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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Vertical lines in the left hand margin indicate an amendment from the previous version.