

# Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

## Vitanica® RZ Bio (ALT)



Version: 1.7  
Date of last issue: 23.12.2022  
Date of first issue: 14.02.2019

Revision Date:  
07.04.2023

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

#### 1.1 Product identifier

Trade name : Vitanica® RZ Bio (ALT)

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

Use of the Substance/Mixture : Fertilizer

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

Company : COMPO EXPERT GmbH  
Krögerweg 10  
D-48155 Münster

Telephone : +49 (0) 251 29 79 81 – 000

Telefax : +49 (0) 251 29 79 81 - 111

E-mail address of person responsible for the SDS : info@compo-expert.com

#### 1.4 Emergency telephone number

GBK GmbH - Global Regulatory Compliance - 24h  
Telephone: +49 (0) 6132 - 84463

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Reproductive toxicity, Category 1B H360FD: May damage fertility. May damage the unborn child.

#### 2.2 Label elements

##### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

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|                          |                                 |  |
|--------------------------|---------------------------------|--|
| Hazard statements        | : H360FD                        | May damage fertility. May damage the unborn child.   |
| Precautionary statements | : P201<br>P202                  | Obtain special instructions before use.<br>Do not handle until all safety precautions have been read and understood. |
|                          | <b>Prevention:</b><br>P280      | Wear protective gloves.  |
|                          | <b>Response:</b><br>P308 + P313 | IF exposed or concerned: Get medical advice/ attention.  |
|                          | <b>Storage:</b><br>P405         | Store locked up.   |
|                          | <b>Disposal:</b><br>P501        | Dispose of contents/ container to an approved waste disposal plant.  |

### 2.3 Other hazards

According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Liquid mixture of organic and inorganic salts of fertilizers.  
contains  
sodium salts  
extract of brown algae  
Using microorganisms.  
Bacillus amyloliquefaciens

#### Hazardous components

| Chemical Name | CAS-No.<br>EC-No.<br>Registration number | Classification   | Concentration<br>(% w/w) |
|---------------|--|------------------|--------------------------|
| boric acid    | 10043-35-3<br><br>233-139-2              | Repr. 1B; H360FD | >= 2 - <= 4,5            |

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

If inhaled : Move to fresh air in case of accidental inhalation of vapours or decomposition products.  
Keep patient calm, remove to fresh air, seek medical

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attention.

- In case of skin contact : Wash off immediately with soap and plenty of water.
- In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.  
If symptoms persist, seek medical advice.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.

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

- Symptoms : No information available.

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

- Treatment : Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Water

### 5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : In case of combustion evolution of dangerous gases possible.  
ammonia

### 5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
In the event of fire and/or explosion do not breathe fumes.
- Further information : Use water spray to cool unopened containers.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Ensure adequate ventilation.  
Avoid contact with skin and eyes.  
In case of involuntary exposition of the product contact producer or supplier.

### 6.2 Environmental precautions

- Environmental precautions : Do not flush into surface water or sanitary sewer system.

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Retain and dispose of contaminated wash water.

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

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Rinse with water.

### 6.4 Reference to other sections

For personal protection see section 8.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Keep away from heat.  
Keep away from direct sunlight.  
Do not allow to dry.

Hygiene measures : Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke.

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

Requirements for storage areas and containers : Keep away from direct sunlight.

Storage class (TRGS 510) : 12, Non Combustible Liquids

Recommended storage temperature : 5 - 35 °C

### 7.3 Specific end use(s)

Specific use(s) : Always read the label and product information before use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

| Components                              | CAS-No.   | Value type (Form of exposure) | Control parameters | Basis       |
|---|---|-------------------------------|--------------------|-------------|
| boric acid                              | boric acid (Crude)  |                               | 0,5 mg/m3          | DE TRGS 900 |
| Peak-limit: excursion factor (category) | 2;(I)   |                               |                    |             |
| Further information                     | Commission for dangerous substances, The threshold value is based on the element content of the corresponding metal.. When there is compliance with |                               |                    |             |

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|   |   |     |                                   |                |
|---|---|-----|-----------------------------------|----------------|
|   | the OEL and biological tolerance values, there is no risk of harming the unborn child   |     |                                   |                |
|   |   | AGW | 0,5 mg/m <sup>3</sup><br>(Borate) | DE TRGS<br>900 |
| Peak-limit:<br>excursion factor<br>(category) | 2;(I)   |     |                                   |                |
| Further information                           | Commission for dangerous substances, The threshold value is based on the element content of the corresponding metal., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child |     |                                   |                |

### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name         | End Use                            | Exposure routes | Potential health effects | Value |
|------------------------|------------------------------------|-----------------|--------------------------|-------|
| Vitanica® RZ Bio (ALT) |                                    |                 |                          |       |
| Remarks:               | This information is not available. |                 |                          |       |

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

| Substance name         | Environmental Compartment          | Value |
|------------------------|------------------------------------|-------|
| Vitanica® RZ Bio (ALT) |                                    |       |
| Remarks:               | This information is not available. |       |

## 8.2 Exposure controls

### Personal protective equipment

Eye protection : Tightly fitting safety goggles

Hand protection

Remarks : For prolonged or repeated contact use protective gloves.  
Impervious gloves Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

### Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.  
Retain and dispose of contaminated wash water.

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### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

|  |   |
|--|---|
| Physical state                         | : liquid  |
| Colour                                 | : brown   |
| Odour                                  | : characteristic                                      |
| Odour Threshold                        | : No data available                                   |
| pH                                     | : = 6,3, (20 °C)                                      |
| crystallization temperature            | : = -5 °C   |
| Boiling range                          | : = 110 °C  |
| Flash point                            | : Not applicable                                      |
| Evaporation rate                       | : No data available                                   |
| Flammability (solid, gas)              | : The product is not flammable.                       |
| Upper explosion limit                  | : Not applicable                                      |
| Lower explosion limit                  | : Not applicable                                      |
| Vapour pressure                        | : Not applicable                                      |
| Relative vapour density                | : No data available                                   |
| Density                                | : = 1,13 g/cm <sup>3</sup> (20 °C)                    |
| Solubility(ies)                        |   |
| Water solubility                       | : soluble   |
| Partition coefficient: n-octanol/water | : Not applicable                                      |
| Auto-ignition temperature              | : Not applicable                                      |
| Decomposition temperature              | : No decomposition if stored and applied as directed. |
| Viscosity                              |   |
| Viscosity, dynamic                     | : No data available                                   |
| Viscosity, kinematic                   | : No data available                                   |

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|                      |   |
|----------------------|---|
| Explosive properties | : Not explosive                         |
| Oxidizing properties | : Not considered an oxidizing substance |

### 9.2 Other information

|                 |                     |
|-----------------|---------------------|
| Surface tension | : No data available |
|-----------------|---------------------|

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

|                     |   |
|---------------------|---|
| Hazardous reactions | : Evolution of ammonia under influence of alkalies. |
|---------------------|---|

### 10.4 Conditions to avoid

|                     |   |
|---------------------|---|
| Conditions to avoid | : No decomposition if stored and applied as directed. |
|---------------------|---|

### 10.5 Incompatible materials

|                    |   |
|--------------------|---|
| Materials to avoid | : Nitrites<br>nitrates<br>Strong oxidizing agents |
|--------------------|---|

### 10.6 Hazardous decomposition products

|                                  |           |
|----------------------------------|-----------|
| Hazardous decomposition products | : ammonia |
|----------------------------------|-----------|

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## SECTION 11: Toxicological information

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

#### Acute toxicity

##### Product:

|                     |   |
|---------------------|---|
| Acute oral toxicity | : Remarks: Calculation method<br>Not applicable |
|---------------------|---|

##### Components:

boric acid:

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|                           |   |
|---------------------------|---|
| Acute oral toxicity       | : LD50 (Rat): 3.450 mg/kg   |
| Acute inhalation toxicity | : LC50 (Rat, male and female): > 2,12 mg/l<br>Method: OECD Test Guideline 403 |
| Acute dermal toxicity     | : LD50 (Rabbit): > 2.000 mg/kg  |

### Skin corrosion/irritation

#### Product:

Remarks: Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin.

#### Components:

##### **boric acid:**

Species: Rabbit

Result: No skin irritation

### Serious eye damage/eye irritation

#### Product:

Remarks: Based on available data, the classification criteria are not met.

#### Components:

##### **boric acid:**

Method: OECD Test Guideline 405

Result: No eye irritation

### Respiratory or skin sensitisation

#### Product:

Result: non-sensitizing

#### Components:

##### **boric acid:**

Test Type: Buehler Test

Species: Guinea pig

Method: OECD Test Guideline 406

Result: negative

### germ cell mutagenicity

#### Product:

Genotoxicity in vitro : Remarks: Contains no hazardous ingredients according to GHS



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### Components:

#### **boric acid:**

- Genotoxicity in vitro
- : Test Type: sister chromatid exchange assay  
Species: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Result: negative
  - : Test Type: Ames test  
Species: Salmonella typhimurium  
Method: OECD Test Guideline 471  
Result: negative
  - : Test Type: In vitro mammalian cell gene mutation test  
Species: mouse lymphoma cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative

### **Carcinogenicity**

#### Product:

Remarks: Contains no ingredient listed as a carcinogen

### Components:

#### **boric acid:**

Remarks: This information is not available.

### **Reproductive toxicity**

#### Product:

- Effects on fertility
- : Remarks: No toxicity to reproduction
- Effects on foetal development
- : Remarks: Contains no ingredient listed as toxic to reproduction

### Components:

#### **boric acid:**

- Effects on fertility
- : Remarks: May damage fertility or the unborn child.

### **STOT - single exposure**

#### Product:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single

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exposure.

### **Components:**

#### **boric acid:**

Remarks: No data available

### **STOT - repeated exposure**

#### **Product:**

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### **Aspiration hazard**

Based on available data, the classification criteria are not met.

## **11.2 Information on other hazards**

### **Endocrine disrupting properties**

No data available

### **Further information**

No data available

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

#### **Product:**

Toxicity to fish : Remarks: There is a high probability that the product is acute not harmful to aquatic organisms.

### **12.2 Persistence and degradability**

#### **Product:**

Biodegradability : Remarks: No data available

### **12.3 Bioaccumulative potential**

#### **Product:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

### **12.4 Mobility in soil**

#### **Product:**

Mobility : Remarks: No data available

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### 12.5 Results of PBT and vPvB assessment

**Product:**

Assessment : Remarks: No data available

### 12.6 Endocrine disrupting properties

No data available

### 12.7 Other adverse effects

**Product:**

Additional ecological information : There is a high probability that the product is acute not harmful to aquatic organisms. The product was not tested. The statement was derived from products of similar structure and composition. May contribute to eutrophication in static waters, therefore should not be released into surface waters.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Do not flush into surface water or sanitary sewer system. Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

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## SECTION 14: Transport information

### 14.1 UN number or ID number

Not regulated as a dangerous good

### 14.2 UN proper shipping name

Not regulated as a dangerous good

### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

### 14.4 Packing group

Not regulated as a dangerous good

### 14.5 Environmental hazards

Not regulated as a dangerous good

### 14.6 Special precautions for user

Not applicable

### 14.7 Maritime transport in bulk according to IMO instruments

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Remarks : Not relevant

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### SECTION 15: Regulatory information

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

Water contaminating class : WGK 2 water endangering  
(Germany)

#### 15.2 Chemical Safety Assessment

No data available

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### SECTION 16: Other information

#### Full text of H-Statements

H360FD : May damage fertility. May damage the unborn child.

#### Full text of other abbreviations

Repr. : Reproductive toxicity

(Q)SAR - (Quantitative) Structure Activity Relationship; ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; DIN - Standard of the German Institute for Standardisation; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TRGS - Technical Rule for Hazardous Substances; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS -

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Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

### Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

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