

# Safety Data Sheet

## RHIZOFLO SOYBEAN

Revision date : 2017/02/13  
Version: 4.0

Page: 1/9  
(30587068/SDS\_GEN\_US/EN)

### 1. Identification

#### Product identifier used on the label

## RHIZOFLO SOYBEAN

#### Recommended use of the chemical and restriction on use

Recommended use\*: Biological agent

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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

Company:  
BASF SE  
67056 Ludwigshafen  
GERMANY

Contact address:  
BASF CORPORATION  
100 Park Avenue  
Florham Park, NJ 07932  
USA  
Telephone: +1 973 245-6000

#### Emergency telephone number

CHEMTREC: 1-800-424-9300  
BASF HOTLINE: 1-800-832-HELP (4357)

#### Other means of identification

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### 2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

#### Classification of the product

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

#### Label elements

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

#### Hazards not otherwise classified

# Safety Data Sheet

## RHIZOFLO SOYBEAN

Revision date : 2017/02/13  
Version: 4.0

Page: 2/9  
(30587068/SDS\_GEN\_US/EN)

### Labeling of special preparations (GHS):

This product is not combustible in the form in which it is shipped by the manufacturer, but may form a combustible dust through downstream activities (e.g. grinding, pulverizing) that reduce its particle size.

**According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

### **Emergency overview**

Ingestion may cause gastrointestinal disturbances.  
Prolonged or excessive exposure may cause irritation of the respiratory tract.  
Prolonged or repeated contact may cause mild skin irritation.  
Prolonged or repeated contact may cause mild eye irritation.

## **3. Composition / Information on Ingredients**

**According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

No particular hazards known.

**According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
	100.0 %	Proprietary ingredients

## **4. First-Aid Measures**

### **Description of first aid measures**

#### **General advice:**

Remove contaminated clothing.

#### **If inhaled:**

Keep patient calm, remove to fresh air.

#### **If on skin:**

Wash thoroughly with soap and water.

#### **If in eyes:**

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

#### **If swallowed:**

Rinse mouth and then drink plenty of water.

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

Symptoms: No significant reaction of the human body to the product known.

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

#### Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

# Safety Data Sheet

## RHIZOFLO SOYBEAN

Revision date : 2017/02/13  
Version: 4.0

Page: 3/9  
(30587068/SDS\_GEN\_US/EN)

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### 5. Fire-Fighting Measures

#### Extinguishing media

Suitable extinguishing media:  
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:  
carbon dioxide

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

Hazards during fire-fighting:  
carbon monoxide, carbon dioxide, nitrogen oxides  
The substances/groups of substances mentioned can be released in case of fire.

#### Advice for fire-fighters

Protective equipment for fire-fighting:  
Wear self-contained breathing apparatus and chemical-protective clothing.

#### Further information:

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. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

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### 6. Accidental release measures

#### Further accidental release measures:

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

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

Avoid dust formation. 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: Contain with dust binding material and dispose of.

For large amounts: Sweep/shovel up.

Avoid raising dust. 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

# Safety Data Sheet

## RHIZOFLO SOYBEAN

Revision date : 2017/02/13  
Version: 4.0

Page: 4/9  
(30587068/SDS\_GEN\_US/EN)

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:

Avoid dust formation. Dust can form an explosive mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.

### Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Further information on storage conditions: Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination.

Protect from temperatures below: 5 °C

Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.

Protect from temperatures above: 25 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

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## 8. Exposure Controls/Personal Protection

### Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

### Personal protective equipment

#### Respiratory protection:

Wear a NIOSH approved (or equivalent) particulate respirator if ventilation is inadequate to control dust.

#### Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

#### Eye protection:

Safety glasses with side-shields.

#### Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

# Safety Data Sheet

## RHIZOFLO SOYBEAN

Revision date : 2017/02/13  
Version: 4.0

Page: 5/9  
(30587068/SDS\_GEN\_US/EN)

### General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

## 9. Physical and Chemical Properties

Form:	solid
Odour:	earthy
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	grey
pH value:	approx. 5 - 7 ( 1 %(m), 20 °C)
Melting temperature:	not applicable
boiling temperature:	not applicable
Flash point:	not applicable
Flammability:	Based on the structure or composition there is no indication of flammability
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.
Vapour pressure:	not applicable
Bulk density:	200 - 1,200 kg/m <sup>3</sup>
Vapour density:	not applicable
Partitioning coefficient n-octanol/water (log Pow):	not applicable
Self-ignition temperature:	Based on its structural properties the product is not classified as self-igniting.
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Viscosity, dynamic:	not applicable, the product is a solid
Solubility in water:	insoluble
Evaporation rate:	not applicable
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.

## 10. Stability and Reactivity

### Reactivity

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

### Oxidizing properties:

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

### Chemical stability

# Safety Data Sheet

## RHIZOFLO SOYBEAN

Revision date : 2017/02/13  
Version: 4.0

Page: 6/9  
(30587068/SDS\_GEN\_US/EN)

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

Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme temperatures. Avoid prolonged exposure to extreme heat. Avoid contamination. Avoid electro-static discharge. Avoid prolonged storage. This product may form an explosive mixture if: 1. the dust is suspended in the atmosphere as a dust cloud AND 2. the concentration of the dust is above the lower explosion limit (LEL) AND 3. the limiting oxygen concentration (LOC) is exceeded.

### Incompatible materials

strong acids, strong bases, strong oxidizing agents

### Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

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## 11. Toxicological information

### Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

### Acute Toxicity/Effects

#### Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

#### Oral

Type of value: ATE

Value: > 5,000 mg/kg

#### Inhalation

Type of value: ATE

Value: > 5.0000 mg/l

Determined for dust

#### Dermal

Type of value: ATE

Value: > 5,000 mg/kg

#### Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. Not irritating to the eyes.

#### Sensitization

Assessment of sensitization: There is no evidence of a skin-sensitizing potential.

# Safety Data Sheet

## RHIZOFLO SOYBEAN

Revision date : 2017/02/13  
Version: 4.0

Page: 7/9  
(30587068/SDS\_GEN\_US/EN)

### Chronic Toxicity/Effects

#### Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. No substance-specific organotoxicity was observed after repeated administration to animals.

#### Genetic toxicity

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.

#### Teratogenicity

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.

#### Other Information

Misuse can be harmful to health.

### Symptoms of Exposure

No significant reaction of the human body to the product known.

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## 12. Ecological Information

### Toxicity

#### Aquatic toxicity

Assessment of aquatic toxicity:

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

#### Toxicity to fish

No data available.

#### Aquatic invertebrates

No data available.

#### Aquatic plants

No data available.

### 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.

# Safety Data Sheet

## RHIZOFLO SOYBEAN

Revision date : 2017/02/13  
Version: 4.0

Page: 8/9  
(30587068/SDS\_GEN\_US/EN)

Biodegradable.

### Bioaccumulative potential

#### Assessment bioaccumulation potential

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

#### Bioaccumulation potential

At the present state of knowledge, no negative ecological effects are expected.

### Mobility in soil

#### Assessment transport between environmental compartments

Due to the product characteristics the test is impossible.

### Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

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## 13. Disposal considerations

### **Waste disposal of substance:**

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

### **Container disposal:**

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**

USDOT

Not classified as a dangerous good under transport regulations

### **Sea transport**

IMDG

Not classified as a dangerous good under transport regulations

### **Air transport**

IATA/ICAO

Not classified as a dangerous good under transport regulations

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## 15. Regulatory Information

### **Federal Regulations**

#### **Registration status:**

Chemical TSCA, US released / listed

Fertilizer TSCA, US released / listed



# Safety Data Sheet

## RHIZOFLO SOYBEAN

Revision date : 2017/02/13  
Version: 4.0

Page: 9/9  
(30587068/SDS\_GEN\_US/EN)

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**EPCRA 311/312 (Hazard categories):** Not hazardous;

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### 16. Other Information

**SDS Prepared by:**  
BASF NA Product Regulations  
SDS Prepared on: 2017/02/13

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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END OF DATA SHEET