

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

1.1. Product identifier

Product form : Mixture
 Trade name : QuickRoots® dry planter box corn, canola, cotton and sorghum

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

Use of the substance/mixture : Formulation for planter box (corn)

1.3. Details of the supplier of the safety data sheet

Novozymes BioAg
 3101 West Custer Ave
 Milwaukee, WI 53209 - USA
 Information Telephone Number : 1-888-744-5662
 Available 24 hours a day 7 days a week from April 1st to June 15th, otherwise available from 8:00am to 4:30pm CST, Monday to Friday.

1.4. Emergency telephone number

Emergency number : 1-800-424-9300 (Chemtrec) 24 hours every day

SECTION 2 : Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Comb. Dust
 Carc. 1A

Full text of H-statements: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS08

Signal word (GHS-US) : Danger
 Hazard statements (GHS-US) : May form combustible dust concentrations in air
 May cause cancer
 Precautionary statements (GHS-US) : Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves, protective clothing, eye protection
 If exposed or concerned: Get medical advice/attention
 Store locked up
 Dispose of contents/container to comply with applicable local, national and international regulation.

2.3. Other hazards

No additional information available

SECTION 3 : Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Components:
Bacillus amyloliquefaciens : 1-8% w/w
Trichoderma virens : 10-18% w/w
 Talc : 28-40%

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Name	Product identifier	%	GHS-US classification
Quartz	(CAS No) 14808-60-7	0.0325 - 0.325	Carc. 1A STOT RE 1

Full text of H-statements: see section 16

The specific chemical identity and/or concentration range is being withheld because it is trade secret information of Novozymes BioAg.

SECTION 4 : First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Allow the victim to rest. Allow breathing of fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Immediately get medical attention.
First-aid measures after skin contact	: Remove contaminated clothing and shoes. Rinse immediately with plenty of water (for at least 15 minutes). If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting unless directed to do so by medical personnel. Give water to drink if victim completely conscious/alert. Never give anything by mouth to an unconscious person. Obtain emergency medical attention.

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

Symptoms/injuries	: This product contains beneficial microorganisms. Novozymes exclusively uses non-pathogenic beneficial microorganisms that are considered to be non-allergenic, non-irritating and non-sensitizing when used as directed. Exposure to very high levels of airborne microbial spores may result in very rare respiratory impairments or cause an allergic reaction in sensitized individuals.
Symptoms/injuries after inhalation	: May cause cancer by inhalation. Possible respiratory damage following repeated or prolonged inhalation.
Symptoms/injuries after skin contact	: May cause skin irritation.
Symptoms/injuries after eye contact	: May cause moderate irritation.

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

Treat symptomatically

SECTION 5 : Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Explosion hazard	: Accumulation of airborne dusts may present an explosion hazard in the presence of an ignition source.
Reactivity	: Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protective equipment for firefighters	: As in any fire, wear self-contained breathing apparatus pressure-demand, NIOSH (approved or equivalent) and full protective gear.

SECTION 6 : Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.

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6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Wash contaminated area with large amounts of water. On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials. Collect all waste in suitable and labelled containers and dispose according to local legislation.

6.4. Reference to other sections

No additional information available

SECTION 7 : Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure adequate ventilation. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with eyes, skin, and clothing. Avoid breathing dust. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practices. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed. Store at room temperature. Store locked up. Do not freeze. Keep away from: Direct sunlight, Heat sources, Extremely high or low temperatures. Keep away from food, drink and animal feeding stuffs.

Incompatible materials : Acids. Bases. Oxidizing agents. Reducing agents. Disinfectants, fungicides, and/or biocides may inactivate.

7.3. Specific end use(s)

No additional information available

SECTION 8 : Exposure controls/personal protection

8.1. Control parameters

Quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)

Talc (14807-96-6)		
ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³ (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)

8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Avoid all unnecessary exposure. Protective goggles. Gloves. Protective clothing. Dust formation: dust mask.



Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Where exposure through inhalation may occur from use, approved respiratory protection equipment is recommended.

Other information : Do not eat, drink or smoke during use.

SECTION 9 : Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Tan/green granular solid

Colour : Tan with green tint

Odour : Dusty or musty

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Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: Not applicable
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: Not applicable
Relative density	: No data available
Relative vapour density at 20 °C	: Not applicable
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: Not applicable
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable

9.2. Other information

No additional information available

SECTION 10 : Stability and reactivity

10.1. Reactivity

Stable

10.2. Chemical stability

Stable

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat sources. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Acids. Bases. oxidizing agents. Reducing agents. Disinfectants, fungicides, and/or biocides may inactivate.

10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon monoxide. Carbon dioxide.

SECTION 11 : Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)

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Carcinogenicity : May cause cancer.

Quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens
In OSHA Hazard Communication Carcinogen list	Yes

Reproductive toxicity : Not classified
(Based on available data, the classification criteria are not met)

Specific target organ toxicity (single exposure) : Not classified
(Based on available data, the classification criteria are not met)

Specific target organ toxicity (repeated exposure) : Not classified
(Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified
(Based on available data, the classification criteria are not met)

Symptoms/injuries after inhalation : May cause cancer by inhalation. Possible respiratory damage following repeated or prolonged inhalation.

Symptoms/injuries after skin contact : May cause skin irritation.

Symptoms/injuries after eye contact : May cause moderate irritation.

SECTION 12 : Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

QuickRoots® Dry Planter Box Corn	
Persistence and degradability	Not established

12.3. Bioaccumulative potential

QuickRoots® Dry Planter Box Corn	
Bioaccumulative potential	Not established

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer : No additional information available

Effect on the global warming : No additional information available

Other information : For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters or rinsate. Avoid release to the environment.

SECTION 13 : Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14 : Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

Additional information

Other information : No supplementary information available.

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ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15 : Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

Chlorite-group minerals	CAS No 1318-59-8	0.325 - 1.625%
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This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

No additional information available

National regulations

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This material is considered hazardous according to the criteria of the US OSHA Hazard Communication Standard (29 CFR 1910.1200).

15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

Quartz (14808-60-7)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
Yes	No	No	No	

SECTION 16: Other information

Abbreviations and acronyms : CAS - Chemical Abstracts Service. GHS - Globally Harmonised System. HCS - Hazard Communication Standard. OSHA - Occupational Safety and Health Administration. PEL- Permissible Exposure Level. STEL- Short-Term Exposure Limit. TWA- Time Weighted Average.

Other information : None

Full text of H-statements:

Carc. 1A	Carcinogenicity, Category 1A
Comb. Dust	Combustible Dust
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
H232	May form combustible dust concentrations in air
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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