



SAFETY DATA SHEET

According to Federal Regulation 29 CFR 1910.1200

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

Product name: **DIEHARD™ Root Reviver**
 Type of product: Product is a granular

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

Identified uses: Processing aid for industrial applications

1.2 Details of the supplier of the safety data sheet

Company: Horticultural Alliance Inc.
 Address: 1550 66th Avenue Drive, East
 Sarasota, FL 34243
 United States
 Telephone: 800-628-6373
 Telefax: 888-386-4478
 E-mail: info@horticulturalalliance.com

1.3 Emergency telephone numbers

24-hour emergency number: 800-424-9300 CHEMTREC (CNN 20412), Outside U.S. 703-527-3887

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Hazard symbol (s): None
 Signal word: None
 Hazard statement(s): None
 Precautionary statement(s): None

2.3 Other hazards

The product swells in water. The product, when wet, renders surfaces extremely slippery.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable, this product is not a substance

3.2 Mixtures

Hazardous components

Potentially Hazardous Components	%	OSHA PEL	NIOSH	ACGIH
Humate (Coal, Humic Acids)	22%	1.5 mg/m ³	--	0.1 mg/m ³

Crystalline Quartz	0.7% - 2.5%	0.1 mg/m ³ (reparable)	50ug/m ³ (reparable)	--
Natural spores of <i>Pisolithus tinctorius</i> , a collected forest fungus.	<1%	15 mg/m ³ Nuisance dust	--	10 mg/m ³ Nuisance dust

SECTION 4: First Aid Measures

Inhalation: No hazards which require special first aid measures. If irritation persists, obtain medical attention.

Skin contact: Presents no hazards.

Eye contact: Rinse immediately with plenty of water, also under the eyelids. If eye irritation occurs, consult a physician.

Ingestion: The product is not considered toxic based on studies on laboratory animals.

4.2 Most important symptoms and effects, both acute and delayed
None

4.3 Indication of any immediate medical attention and special treatment needed.
None

Other information:
None

SECTION 5: Fire-fighting measures

Suitable extinguishing media: Water, water spray, foam, carbon dioxide, or dry powder.

Special hazards arising from the substance or mixture: Hazardous combustion products: Airborne concentrations of spore dust at high temperatures

Protective measures: In the event of fire, wear self-contained breathing apparatus. Use standard firefighting procedures and preferred extinguishing media above.

Other information:
Take precautions against explosion hazard associated with airborne concentrations of spore dust at high temperature.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: None

Protective equipment: Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection)

Emergency procedures: Keep people away from spill/leak.

6.2 Environmental precautions

As with all chemical products, do not flush into surface water.

6.3 Methods and material for containment and cleaning up

Clean up promptly by scoop or vacuum. Avoid stirring up dust. Sweep up under a water mist to reduce dust potential. If contact with skin occurs, wash skin with soap and water. Keep in suitable and closed containers for disposal.

6.4 Reference to other sections

Section 7: Handling and storage; Section 8: Exposure controls/personal protection; Section 9: Physical and chemical properties; Section 13: Disposal considerations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Wash hands before breaks and at the end of the workday.

7.2 Conditions for safe storage, including any incompatibilities.

Keep in dry place, cool place (0-35C). Keep container closed when not in use.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits:

None

8.2 Exposure Controls:

Appropriate engineering controls:

Use local exhaust if dusting occurs. Natural ventilation is adequate in absence of dusts.

Individual protection measures such as personal protective equipment

- a) Eye/face protection:
Safety glasses with side-shields
- b) Skin protection:
Not mandatory use protective clothes
- c) Respiratory protection:
Dusty safety masks are recommended where concentration of the total dust is more than 10mg/m³
- d) Additional advice:
Handle in accordance with good industrial hygiene and safety practice
- e) Hand protection:
Not mandatory use protective clothes

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties:

9.1 Information on basic physical and chemical properties

- a) Appearance: Brown dust and granular
- b) Odor: Slight – earth smell
- c) Odor Threshold: Not applicable
- d) pH: Not applicable
- e) Melting point/freezing point: Not applicable
- f) Initial Boiling point and boiling range: Not applicable
- g) Flash point: Not applicable
- h) Evaporation rate: Not applicable
- i) Flammability (solid, gas): No data available
- j) Upper/lower flammability or explosive Limits: Keep away from heat and flame
- k) Vapor pressure: Not applicable

l) Vapor density:	Not applicable
m) Relative density:	0.4 – 0.6
n) Solubility (ies):	Both soluble and insoluble
o) Partition coefficient:	Not applicable
p) Autoignition temperature:	Does not self-ignite (based on the chemical structure)
q) Decomposition temperature:	Not applicable
r) Viscosity:	Not applicable
s) Explosive properties:	Not expected to be explosive based on the chemical structure
t) Oxidizing properties:	Not expected to be oxidizing based on the chemical structure

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

None known

10.2 Chemical stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

Presents no significant reactivity hazard

10.4 Conditions to avoid

Avoid explosive dust concentrations

10.5 Incompatible materials

Incompatible with strong acids and oxidizing agents

10.6 Hazardous decomposition products

None known

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	Persons with acute allergies could become asthmatic (rare); Allergies could develop over time in some individuals. Persons with mold allergies could experience hay fever with sneezing and nasal congestion.
Acute dermal toxicity:	Skin allergy could develop from special repeated excess skin contact, involving itching and rash (rare).
Acute inhalation toxicity:	Avoid inhalation
Skin corrosion/irritation:	Not irritating
Serious eye damage/eye irritation:	Not irritating
Respiratory/skin sensitization:	Not sensitizing
Mutagenicity:	Not mutagenic
Carcinogenicity:	Not carcinogenic
Reproductive toxicity:	Not toxic for reproduction
STOT – single exposure:	No known effects
STOT – repeated exposure:	No known effects
Aspiration hazard:	No hazards resulting from the material as supplied

SECTION 12: Ecological information

12.1 Toxicity

Information on the product as supplied:

Acute toxicity to fish:	No Data available
Acute toxicity to invertebrates:	No Data available
Acute toxicity to algae:	No Data available
Chronic toxicity to fish:	No Data available
Chronic toxicity to invertebrates:	No Data available
Toxicity to microorganisms:	No Data available
Effects on terrestrial organisms:	No known effects
Sediment toxicity:	No Data available

12.2 Persistence and degradability

Information on the product as supplied:

Degradation:	Biodegradable.
Hydrolysis:	Does not hydrolyse
Photolysis:	No data available

12.3 Bioaccumulative potential

Information on the product as supplied:

Not bioaccumulating.	
Partition co-efficient (Long Pow):	No Data available
Bioconcentration factor (BCF):	No Data available

12.4 Mobility in soil

Information on the product as supplied:

None

12.5 Other adverse effects

None known

SECTION 13: Disposal considerations

13.1 Waste treatment methods.

Waste from residues/unused products:

Dispose in accordance with local and national regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Contaminated packaging:

Dispose in accordance with local and national regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

The product and its packaging are not suitable for recycling.

SECTION 14: Transportation information

Land transport (DOT)

Not classified

Sea transport (IMDG)

Not classified

Air transport (IATA)

Not classified

SECTION 15: Regulatory information:

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

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:

Not concerned

RCRA status:

Not RCRA hazardous.

California Proposition 65 information

NFPA and HMIS Ratings:

NFPA:

Health: 0

Flammability: 0

Instability: 0



HMIS:

Health: 0

Flammability: 0

Physical Hazard: 0

PPE Code: 0

This data sheet contains changes from the previous version in section(s):

SECTION 2. Hazards identification, SECTION 3. Composition/information on ingredients, SECTION 4. First aid measures, SECTION 11. Toxicological information, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet.

None

This SDS was prepared in accordance with the following:

Federal Regulation 29 CFR 1910.1200

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 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.