

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

1.1. Product identifier

Product form : Mixture
Product name : Bacterial Wheat Inoculant
Trade name : MicroAZ-ST Dry™ for Wheat

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

1.2.1. Relevant identified uses

Natural fertilizer

1.2.2. Uses advised against

None identified

1.3. Details of the supplier of the safety data sheet

Manufacturer:
TerraMax, Inc
815 W 106th St.
Bloomington, MN 55420
Tel: 1-952-657-5592

1.4. Emergency telephone number

Emergency Number : 1-800-535-5053 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Comb. Dust

Carc. 1A H350

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H232 – May form combustible dust concentrations in air

Precautionary statements (GHS-US) :

H350 – May cause cancer

P201 – Obtain special instructions before use

P202 – Do not use until all safety precautions have been read and understood

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P308+P313 – If exposed or concerned: Get medical advice/attention

P405 – Store locked up

P501 – Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, and/or international regulation

2.3. Other hazards

Prolonged or repeated contact to skin may cause mild irritation. Contact to eye may cause mild eye irritation

Bacterial Wheat Inoculant

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Humate	(Cas No.) Proprietary	90-95
Quartz	(Cas No.) 14808-60-7	< 6
Limestone	(Cas No.) 1317-65-3	4-6
Azospirillum		.042% w/w

Some constituent(s) and/or exact percentage(s) are being withheld as trade secrets.

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 victim to breathe fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

- Symptoms/injuries after skin contact : Exposure to skin or mucous membranes may produce irritation, absorption of skin oils, smarting, redness, or contact dermatitis.
- Symptoms/injuries after eye contact : Exposure may cause reversible irritation and reddening of the eye.
- Symptoms/injuries after inhalation : Can cause respiratory tract irritation

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : This product is not flammable.
- Explosion hazard : Avoid generation of dust; fine dust dispersed in air in sufficient concentration, and in the presence of an ignition source is a potential dust explosion hazard.

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.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Collect as much as possible in clean container for (preferably) re-use or disposal. Spills of this product present a serious slipping hazard. Dust deposits should not be allowed to accumulate on surfaces as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

6.1.1. For non-emergency personnel

- Emergency procedures : Avoid contact with skin and eyes. Do not breath dust. Evacuate unnecessary personnel.
- Protective Equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure-controls refer to /personal protection

6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required. For further information refer to section 8: Exposure-controls refer to /personal protection
- Emergency procedures : Contain for reuse if possible. Sweep and scoop spilled material into clean, dedicated equipment. Collect all waste in suitable and labelled containers and dispose according to local legislation.

Bacterial Wheat Inoculant

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

6.2. Environmental precautions

Prevent entry to sewers and public waters. Do not allow large quantities to spread into the environment. Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Recover mechanically the product. Wet clean or vacuum up solids. Sweep or shovel spills into appropriate container for disposal. Wash contaminated area with large amounts of water. Avoid raising powdered materials into airborne dust. Avoid dispersal of dust in the air (i.e. Cleaning dust surfaces with compressed air), Non-sparking tools should be used.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid raising powdered materials into airborne dust. Avoid contact with skin and eyes. Do not breath dust. Keep container closed when not in use. Minimize dust generation and accumulation. 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 mixture operations. Provide adequate precautions, such as electrical grounding and bonding or inert atmospheres.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well-ventilated place. Keep containers closed when not in use. Avoid freezing.

Technical measures :

Incompatible materials : Strong acids.

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)
OSHA	Remark (OSHA)	(3) See Table Z-3

Limestone (1317-65-3)		
OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). 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. Use only appropriately classified electrical equipment and powred industrial trucks.

Personal protective equipment : Protective goggles. Gloves. Dust mask.



Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses. It is strongly recommended contact lenses not be worn when working with chemicals because they may increase the severity of an eye injury.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

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

Bacterial Wheat Inoculant

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder
Colour	: Gray-black
Odour	: Odourless
Odour threshold	: No data available
pH	: 6.0-7.0 (Slurry)
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Insoluble in water
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: No data available
Oxidising properties	: Not applicable (No oxidizing agent)
Explosive limits	: No data available

9.2. Other information

Volatiles	: None
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SECTION 10: Stability and reactivity

10.1. Reactivity

Stable and non-reactive under normal operating conditions.

10.2. Chemical stability

Stable under normal operating conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Avoid low temperatures below freezing point.

10.5. Incompatible materials

Strong acids.

10.6. Hazardous decomposition products

Thermal decomposition: Carbon monoxide. Carbon dioxide. Alkali oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
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Quartz (14808-60-7)	
IARC group	1 – Carcinogenic to humans
National Toxicology Program (NTP) Status	2 – Known Human Carcinogens

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.

Bacterial Wheat Inoculant

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: (Based on available data, the classification criteria are not met)

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

Not established

12.3. 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	: 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

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: Not applicable
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IMDG

Transport hazard class(es) (IMDG)	: Not applicable
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IATA

Transport hazard class(es) (IATA)	: Not applicable
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ADN

Transport hazard class(es) (ADN)	: Not applicable
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RID

Transport hazard class(es) (RID)	: Not applicable
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Bacterial Wheat Inoculant

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

14.4. Packing group

Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

14.6.1. Overland transport

14.6.2. Transport by sea

14.6.3. Air transport

14.6.4. Inland waterway transport

Carriage prohibited (ADN)	: No
Not subject to ADN	: No

14.6.5. Rail transport

Carriage prohibited (RID)	: No
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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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

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

CANADA

Humate	
Listed on the Canadian NDSL (Non-Domestic Substances List)	
Quartz (14808-60-7)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
Limestone (1317-65-3)	
Listed on the Canadian NDSL (Non-Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

EU-Regulations

Humate	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
Quartz (14808-60-7)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
Limestone (1317-65-3)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Bacterial Wheat Inoculant

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

15.2.2. National regulations

Humate
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Korean ECL (Existing Chemicals List)
Quartz (14808-60-7)
Listed on IARC (International Agency for Research on Cancer) Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed as carcinogen on NTP (National Toxicology Program) Listed on the Canadian IDL (Ingredient Disclosure List) Listed on INSQ (Mexican national Inventory of Chemical Substances) Listed on CICR (Turkish Inventory and Control of Chemicals)
Limestone (1317-65-3)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on INSQ (Mexican national Inventory of Chemical Substances) Listed on CICR (Turkish Inventory and Control of Chemicals)

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

Other information : Refer to NFPA 654, *Standard for the Prevention of Fire and Dust explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids*, for safe handling.

Carc. 1A	Carcinogenicity, Category 1A
Comb. Dust	Combustible dust
H232	May form combustible dust concentrations in air
H350	May cause cancer

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