

Material Safety Data Sheet



3935 Thatcher Avenue, Saskatoon, SK. S7R 1A3 Canada

1. Product identification:

Designations: Peat-based inoculant products containing live cultures of nitrogen-fixing Rhizobium bacteria

Chemical formula: Mixture

Manufacturer: Novozymes BioAg Inc.
3101 W. Custer Ave., Milwaukee, WI 53209

Telephone: Phone: 414-462-7600;
M-F, 8:00 am – 4:30 pm CDT

MSDS number: NZWI-04

Effective date: June 1, 2011

NitraStik™

2. Composition:

Hazardous ingredient:	CAS number:	OSHA PEL:	ACGIH TLV:
crystalline quartz	14808-60-7	10 mg/m ³	0.1 mg/m ³

(Small amounts of quartz are a naturally-occurring component of the carrier substrate.)

Contains naturally-occurring, non-pathogenic Rhizobium bacteria on a carrier substrate of clay. These are symbiotic nitrogen-fixing bacteria, to be applied as a seed treatment or in-furrow at seed planting, to specific legume crops (not a plant food product). See product label for specific crop information, application rates, and methods. Not for food, feed or drug use.

3. Hazard identification:

Emergency overview: There are no known health effects caused by the Rhizobium bacteria contained in this product

Primary entry routes: Oral (swallowing), inhalation

Acute effects (signs and symptoms of overexposure):

Eyes: Dust may cause mechanical irritation of eye

Skin: No known hazard

Inhalation: Inhalation of large amounts of dust may cause discomfort

Ingestion: No known hazard

Chronic effects: Chronic inhalation of quartz dust causes lung disease

Medical conditions aggravated by exposure:
Respiratory disease

Target organs: Lungs

Carcinogenicity:

Quartz is listed as a carcinogen by NTP and IARC

HMIS: Health – 0, Flammability – 0, Reactivity – 0

4. First aid measures:

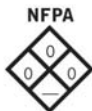
Eyes: Flush eyes with water for at least 15 minutes

Skin: Wash with soap and water

Inhalation: Remove person to fresh air. Get medical attention if irritation persists

Ingestion: No treatment necessary

5. Fire-fighting measures:



Flash point: None

Auto-ignition temp.: Not determined

Explosive limits:

LEL: Not applicable UEL: Not applicable

Extinguishing media:

Use media suitable for the surrounding fire

Unusual fire or explosion hazards: None known

Fire fighting instructions: No special requirements

6. Accidental release measures:

Large spill/leak procedures: Contain spill and recover for use or disposal

Small spills: Spilled liquid may cause slippery residue on hard floors. Flush spill area with water to wash away any slippery residue

7. Handling and storage:

Storage requirements: Store in original container in a cool, dry place. Use before expiration date printed on package

Handling precautions: No special handling requirements. Follow normal hygiene and housekeeping standards for agricultural products

8. Exposure controls, personal protection, and exposure limits:

Ventilation: Special ventilation is not required for the normal handling and use of this product when following the label instructions

Protective clothing/equipment: Dust-proof goggles are recommended when working in dusty conditions

Respirator: Wear a dust mask when working in dusty conditions

Contaminated equipment: Clean application equipment with detergent and water after use

Questions: 1-800-558-1003;
Monday-Friday, 8:00 am – 4:30 pm CDT

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Comments: Practice general personal hygiene after using this product. After handling any chemical or biological product, wash arms, hands and face with soap and water before eating, drinking or smoking

9. Physical and chemical properties:

Physical state: Powder or granules
Water solubility: Insoluble
Color: Dark brown
% Volatile (Volume): Not determined
Odor: Earthy
Specific gravity: 0.6
Melting point: Not determined
Vapor pressure: Not determined
Boiling point: Not determined
Vapor density: Not determined
Freezing point: Not determined **pH:** 6.5 to 7.3

10. Stability and reactivity:

Stability: Stable
Conditions to avoid: None
Hazardous polymerization: Will not occur
Chemical incompatibilities: Some seed-applied chemicals, including fungicides, may be harmful to the bacteria in this product. See product label for further information on the use of fungicides or other chemicals in conjunction with seed treatment. Avoid contact with strong fertilizers or strong oxidizers
Hazardous products of decomposition:
Oxides of carbon

11. Toxicological information:

Eye effects/eye irritation: Non-irritating
Acute oral effects: LD₅₀ (orl-rat) : >5000 mg/kg
Acute inhalation effects: No data available
Acute dermal effects: LD₅₀ (dml-rbt) : >2000 mg/kg
Skin irritation: Non-irritating
Skin sensitization: Not a skin sensitizer

12. Ecological information:

This product contains non-pathogenic bacteria strains that occur naturally in soil and are biodegradable.

13. Disposal considerations:

Disposal: Small amounts of product which cannot be used according to label instructions may be disposed of in a landfill
RCRA waste status: This product is not regulated as a hazardous waste. State and local regulation may affect the disposal of this product. Consult your state, local or provincial environmental agency for disposal of waste other than by use according to label instructions

14. Transportation information:

Transportation data: This product is not regulated as a hazardous material for all modes of transportation within the U.S. and Canada
Hazard class: Not applicable **ID No.:** Not applicable

15. Regulatory information:

TSCA: All components of this product are listed on the TSCA inventory
SARA section 313: Contains no reportable components
OSHA hazard classification: Non-hazardous
Proposition 65: Contains no components subject to warning requirements
WHMIS / controlled products regulations: This product has been classified in accordance with the hazard criteria of the CPR and this MSDS contains all of the information required by the CPR
Master reference: On file
MSDS status: New MSDS

16. Other information:

Prepared by: D. Joers
This information may not be adequate for every application and therefore it is up to the user to determine the suitability of this information based on conditions of use, storage or local regulations.

***Notice:** The information contained in this Material Safety Data Sheet is presented in good faith and is believed to be accurate as of the effective date shown above. However, no other warranty, expressed, or implied, is given. Laws, regulations, and/or third party rights may prevent customers from importing, using, processing and/or reselling the products described herein in a given manner. Without separate written agreement between the customer and Novozymes to such effect this document does not constitute a representation or warranty of any kind and is subject to change without further notice.*

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