

SAFETY DATA SHEET
Bio-Iron
Agricultural Mineral & Soil Inoculant

I. IDENTIFICATION

General Use: Soil Amendment
Common Name: Bio-Iron
Manufacturer: Blacksmith BioScience Inc
504 Spring Hill Dr #440
Spring Texas 77386
Emergency Tel# 855-971-2669

II. HAZARD INFORMATION

A. Toxicity: none
B. Carcinogenicity: N/A not listed by NTP, LARC, OSHA, ACGIH, ORHIOSH
C. Primary Route(s) of Exposure: Skin Contact, Ingestion
D: Health Effects of Over Exposure:
1. Inhalation: Nasal Irritation
2. Ingestion: Irritation of mucous membranes.
3. Skin: No negative side effects. Wash with soap and water.
4. Eyes: Slight irritation may occur. Flush with water.

III. COMPOSITION AND INFORMATION ON INGREDIENTS

Components

- 1) Bacillus blend (B. subtilis, B. licheniformis, B. amyloliquefaceans,) at 1×10^9
- 2) Streptomyces nigrescens at 1×10^6
- 3) iron humate

IV. FIRST AID MEASURES:

1. Inhalation: Flush nose with water
2. Ingestion: Induce vomiting; consult physician
3. Skin: Wash with soap and water.
4. Eyes: Flush with water for five minutes

V. FIRE-FIGHTING MEASURES

- A. Fire: Not considered a fire hazard.
- B. Explosion: Not considered an explosion hazard.
- C. Fire Extinguishing Media: Water, CO₂, or dry chemicals may be used.
- D. Precautions: No precautions are necessary under normal conditions of use. As with any dust avoid high concentrations

VI. ACCIDENTAL RELEASE MEASURES

General: Take all additional action necessary to prevent and remedy the adverse effects of the spill.

Specific: In case of spill, collect material immediately. Wipe residual material from surfaces with cloth. Do not wash residues into drains or other waterways.

VII. HANDLING AND STORAGE

Armory may be stored in all types of containers made of various materials of construction. Avoid contact with strong oxidizing agents.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

- A. Eyes and Face: Though not necessary, safety glasses may be worn.
- B. Respiratory: No respirator is required under normal conditions of use.
- C. Skin: Though not necessary, gloves may be worn.
- D. Shoes: Safety shoes are not necessary.

IX. PHYSICAL & CHEMICAL PROPERTIES

Bulk Density: 55-65 lb/ cubes ft
Solubility in H₂O: none
pH (apparent): 5.0-6.5

Form: Solid powder
Appearance: dark Chocolate brown
Odor: Slight peat aroma
Boiling Point (degC): N/A
Melting Point (degC): N/A
Evaporation Rate: N/A
Vapor Pressure: N/A

X. STABILITY AND REACTIVITY

Stability: Stable under normal recommended storage and handling conditions
Hazardous Polymerization: Will not occur
Incompatibility: Strong acidic materials

XI. TOXICOLOGY INFORMATION

This section is intended for use by toxicologists and other health professionals.
Data obtained on similar products and on components are summarized below.

Acute oral toxicity

Rat, LD50: > 5,050 mg/kg body weight Practically non-toxic.

Acute dermal toxicity

Rat, LD50: > 5,050 mg/kg body weight Practically non-toxic.

Skin irritation

Rabbit, Non-irritating

Eye irritation

Rabbit: none observed

Acute inhalation toxicity

Rat, LC50: > 5,050mg/kg Practically non-toxic.

Skin sensitization

Guinea pig, Buehler test: Sensitizer

Mutagenicity

In vitro and in vivo mutagenicity test(s): None observed.

Carcinogenicity

None observed

Toxicity to reproduction/fertility

None observed

Developmental toxicity/teratogenicity

None observed

XII. ECOLOGICAL INFORMATION

Active ingredient is practically non-toxic, non-allergenic and non-pathogenic to fish, non-target insects, non-target plants and freshwater invertebrates.

XIII. DISPOSAL CONSIDERATIONS

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Dispose of empty container in a sanitary landfill or by incineration or, if allowed by state or local authorities, by burning. If burned, stay out of smoke.

XIV. TRANSPORT INFORMATION

A. DOT Shipping Name: None
B. DOT Hazard Class: None
C. DOT Category: None
E. Reportable Qualities (RQ): None
F. HMIS: Personal Protective Code - A (Safety Glasses)
G. NFPA Rating: 0 (Health) - 0 (Flammability)
- 0 (Reactivity)

XV. REGULATORY INFORMATION

United States - Not regulated
SARA Hazard Class: None
SARA 313: NO
SARA 302: NO
CERCLA: NO
RQ: NONE
RCRSA: NO

XVI OTHER INFORMATION

date. This information was drawn from recognized sources, believed to be reliable. However, company will not be responsible for damages of any kind resulting from the use or reliance upon such information. The product discussed is sold without warranty, expressed or implied, and upon conditions that purchasers shall perform their own verification and testing to determine its suitability for a particular purpose.

Contact: Blacksmith BioScience Inc
504 Spring Hill Dr #440
Spring Texas 77386

Effective Date: April 1, 2021