



TRIAD SPECIALTY SOLUTIONS, LLC  
11175 WINDFERN ROAD, SUITE A  
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T: 832.688.8540  
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## MATERIAL SAFETY DATA SHEET

MSDS Number: Bio Teck

Revision Date: April 10, 2012

### 1. Product Identification

**Manufacturer:**

TRIAD Specialty Solutions, LLC  
11175 Windfern Rd, Ste A  
Houston, Texas 77064

**Emergency Numbers**

CHEMTREC: (800) 424-9300  
(832)-279-0525

**Products:**

**Bio Teck**

Microbiological environmental remediation products

**Synonyms:** none – proprietary mixtures

### 2. Composition/Information on Chemical Ingredients

Ingredient	CAS No	Percent	Hazardous
Ammonium sulfate	7783-20-2	0 - 20%	No
Potassium Nitrate		0 - 20%	No
Inert Solids	Trade Secret	60 - 80%	No

Ingredients not precisely identified are proprietary, non-hazardous or constitute less than 1% by weight of the mixture. All chemical ingredients appear on the EPA TSCA inventory.



### 3. Hazards Identification

#### Emergency

#### Overview

**HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.**

#### Hazard Ratings

Health Rating: 1 - Slight  
Flammability Rating: 0 - None  
Reactivity Rating: 0 - None  
Contact Rating: 1 - Slight  
Protective Equip: Mask, goggles  
Storage Color Code: Yellow (Reactive)

#### Potential Health Effects

##### Inhalation:

Inhalation of dust may irritate the respiratory tract. Symptoms may include coughing, shortness of breath. Contains a small amount of crystalline silica. Prolonged and repeated exposure to the dust may cause delayed respiratory disease.

##### Ingestion:

May cause gastroenteritis and abdominal pains. Other symptoms may include dizziness, bloody diarrhea, convulsions, and collapse. Purging and diuresis can be expected. Small repeated doses may cause headache and mental impairment. Rare cases of nitrates being converted to the more toxic nitrites have been reported, mostly with infants.

##### Skin Contact:

May cause irritation, symptoms including redness, itching, and pain.

##### Eye Contact:

May cause irritation, symptoms including redness, and pain.

##### Chronic Exposure:

Under some circumstances methemoglobinemia occurs in individuals when the nitrate is converted by bacteria in the stomach to nitrite. Nausea, vomiting, dizziness, rapid heartbeat, irregular breathing, convulsions, coma, and death can occur should this conversion take place.

##### Aggravation of Pre-existing Conditions:

Workers with a history of kidney or lung disease may be more susceptible to the effects of this substance.



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## 4. First Aid Measures

**Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:**

Drink large quantities of milk or water. Follow with milk of magnesia, beaten eggs or vegetable oil. DO NOT INDUCE VOMITING! Get medical attention immediately.

**Skin Contact:**

Remove any contaminated clothing. Wipe off excess from skin. Wash skin with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

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## 5. Fire Fighting Measures

**Fire:**

Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

**Explosion:**

Explosive with heat or friction. Potassium nitrate decomposes explosively when heated > 538C (1000F). Sensitive to mechanical impact. Will release ammonia when heated to >155C (311F).

**Hazardous Decomposition:**

Highly toxic oxides of and oxides of nitrogen. Ammonia may be emitted upon heating.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire. Water spray may be used to keep fire-exposed containers cool.

**Special Information:**

Wear full protective clothing and breathing equipment for high-intensity fires or potential explosion conditions. This oxidizing material may increase the flammability of adjacent combustible materials.

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## 6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Material is micro-sized granulated dust and may be picked up for recovery or disposal and placed in a closed container.



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## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage and moisture. Isolate from any source of heat or ignition. Separate from strong alkalis, combustibles, and organic or other readily oxidizable materials. Container of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

## 8. Exposure Controls/Personal Protection

### **Airborne Exposure Limits:**

None established.

### **Ventilation System:**

This product is designed for use outside. If used indoors, a system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

### **Personal Respirators (NIOSH Approved):**

For conditions of use where exposure to the dust is heavy, a half-face dust/mist respirator or dust filter may be worn.

### **Skin Protection:**

Wear protective clothing, including boots, gloves and coveralls, as appropriate, to minimize skin contact.

### **Eye Protection:**

Use chemical safety goggles and/or full-face shield where severe dusting is possible. Maintain eye wash fountain and quick-drench facilities in work area.

## 9. Physical and Chemical Properties

### **Appearance:**

Grayish-white powder.

### **Odor:**

Virtually odorless powder.

### **Solubility:**

37g/100g water (70F), only partially soluble, will form suspension

### **Specific Gravity:**

1.8

### **pH (10% solution):**

7.2-7.4



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**% Volatiles by volume @ 21C (70F): 0**

**Boiling Point:**

N/A

**Melting Point:**

N/A

**Vapor Density (Air=1):**

N/A

**Vapor Pressure (mm Hg):**

N/A

**Evaporation Rate (BuAc=1):**

N/A

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## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

Emits ammonia and nitrous oxides when heated to decomposition.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Reacts with strong acids to emit oxides of nitrogen. Reacts with strong alkalis to emit ammonia. Avoid contact with strong alkline materials such as caustic soda. **DO NOT** mix with liquid chlorine bleach.

Contact with the following may cause an explosion: barium rhodanide, boron phosphide, cyanides, sodium thiosulfate, sodium hypophosphite, sulfur plus charcoal, powdered aluminum and aluminum oxide. Fibrous organic material such as jute, wood, and similar cellulosic materials can become highly combustible by nitrate impregnation.

**Conditions to Avoid:**

Moisture, heat, shock, friction, and incompatibles.

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## 11. Toxicological Information

Oral rat LD50:            **Ammonium sulfate: 3000 mg/Kg**

Irritant, harmful if swallowed, may lead to emesis. May irritate eyes and skin, respiratory tract irritant.



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## 12. Ecological Information

### Environmental Fate:

Rapidly degraded by active microbial activity from microbes in mixture. Can stimulate algal growth if introduced into an aquatic environment.

### Environmental Toxicity:

All active components are taken up as nutrients by vegetation.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be sent to an RCRA-approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

### Domestic (Land, DOT)

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**Proper Shipping Name:** Chemical mixture, NOS

**Hazard Class:** Non-Regulated Solid

**UN/NA:** NA

**Information reported for product/size:** 36x40 lb.

### International (Water, I.M.O.)

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**Proper Shipping Name:** Chemical mixture, NOS

**Hazard Class:** Non-Regulated Solid

**UN/NA:** NA

**Packing Group:** III

**Information reported for product/size:** 36x40 lb.

## 15. Regulatory Information

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
SARA 311/312: Acute: No      Chronic: No      Fire: No      Pressure: No



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Reactivity: No

**Poison Schedule:** No information found.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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## 16. Other Information

**NFPA Ratings:** Health: 1 Flammability: 0 Reactivity: 1 Other: **Oxidizer**

**HMIS Ratings:** Health: 1 Flammability: 0 Reactivity: 1 Protective Clothing: F

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**Disclaimer:**

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