

# **BIO-TAM**<sup>™</sup>

## SAFETY DATA SHEET

According to U.S. 29 CFR 1910.1200

Date of Issue: 3 January 2012

Revision Number: 0

Replaces all previous editions

## SECTION 1: IDENTIFICATION OF SUBSTANCE / PREPARATION AND COMPANY / UNDERTAKING

Product Name: BIO-TAM<sup>TM</sup> Synonyms: Not Applicable

Product Use: Biological mycofungicide

Company: AgraQuest, Inc. Distributor: Not Applicable

Address: 1540 Drew Avenue Address: Davis, California 95618, USA

Telephone: 1.530.750.0150 Telephone: Not Applicable

Emergency Phone: In USA call CHEMTREC 24-hour toll-free hotline at 1.800.424.9300

(CHEMTREC) Outside USA, call 1.703.527.3887 (collect calls accepted)

Registrations: See Section 15

# **SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS**

<u>Ingredient:</u> <u>CAS No.</u> <u>Percent</u>

1. Trichoderma asperellum, Not Applicable 2.0%

strain ICC 012

2. *Trichoderma gamsii*, Not Applicable 2.0%

strain ICC 080

3. Mixture of inert, Not Applicable to mixtures 96.0%

non-reactive ingredients

Section 2 Notes: This preparation contains no hazardous substances per Directive 67/548/EEC.

#### **SECTION 3: HAZARDS IDENTIFICATION**

Emergency Overview: This preparation is not considered to be hazardous to humans or the environment.

Product has very low toxicity via ingestion or skin contact.

Possible Routes of Entry: Inhalation, eyes, and skin

Potential Health Effects from Over-exposure

Skin/ Eye Irritation: Direct contact with skin or eyes may cause irritation in some individuals.

Inhalation: Inhalation of dust may cause respiratory tract irritation in some individuals.

Section 3 Notes: In the unlikely event that over-exposure occurs, follow first aid measures in section 4.

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# **SECTION 4: FIRST AID MEASURES**

General: Remove from source of exposure. If irritation or other signs of toxicity occur, seek medical attention.

Eyes: Hold eye open and rinse slowly and gently with plenty of water for at least 15 minutes. If present,

remove contact lenses and continue rinsing eye.

Skin: Remove contaminated clothing. Thoroughly wash skin with plenty of soap and water.

Inhalation: Move person to fresh air. If person is not breathing, call an ambulance, then give artificial respiration.

Ingestion: Call a doctor immediately if a large amount is swallowed. Have person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person.

**Note to Physicians and First Aid Providers:** This product has low oral and dermal toxicity, and is expected to have low inhalation toxicity. Direct contact with eyes may cause temporary irritation. Provide symptomatic and supportive care as necessary.

#### **SECTION 5: FIRE-FIGHTING MEASURES**

General: Use methods and protective gear that are appropriate for the conditions and size of the fire.

Extinguishing Media: Use appropriate media for underlying cause and combustibles involved in the fire.

Special Equipment: Self-contained breathing apparatus and full protective gear according to the conditions and

size of the fire.

# **SECTION 6: ACCIDENTAL RELEASE MEASURES**

Personal Precautions: Wear suitable protective clothing such as long-sleeved shirt, pants, waterproof gloves and

shoes with socks. If conditions warrant, use a respirator, safety goggles or face shield, and

chemical-resistant boots

Methods for Clean Up: Avoid generating dust during clean up. Recover the product and prevent it from entering

drainage systems, if possible. After the product has been recovered, rinse the area and any contaminated materials/equipment with detergent and water. Dispose unrecoverable

product, rinsate, or rinsate solids on site or at an approved disposal facility.

Section 6 Notes: Refer to section 8 for personal protection and section 13 for disposal considerations.

#### **SECTION 7: HANDLING AND STORAGE**

Handling: Use handling procedures that minimize formation of dust.

Storage: Store in a cool, dry, well-ventilated place in original container. Keep container closed when not

in use. Containers should be stored out of direct sunlight. Do not contaminate other pesticides,

fertilizers, water, or feed by storage or disposal.

Section 7 Notes: Avoid contact with skin, eyes and clothing. Avoid inhalation of dust. Wash any contamination

from skin or eyes immediately. Wash hands and exposed skin before eating, drinking, smoking

or using the toilet.

## **SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

General: Protective clothing should be selected according to the conditions likely to be encountered

in the workplace. Applicators should follow label instructions. No exposure limits have been

established.

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#### SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION continued

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to reduce

airborne exposure at locations/operations where dust may be generated.

Personal Protective Equipment:

Respiratory: Use a dust-filtering face mask or a NIOSH approved respirator with any N, R, P or HE filter

for biological products.

Eyes and Face: Chemical safety goggles or safety glasses with side shields.

Hands/Skin: Gloves made from chemically resistant material such as neoprene, vinyl, rubber, or nitrile.

Other Clothing: Wear suitable protective clothing such as long-sleeved shirt, pants, and shoes with socks.

Hygienic Practices: Wash hands and exposed skin before eating, drinking, smoking or using the toilet.

#### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Solid, off-white powder

Odor: Slight odor
Boiling Point: Not Applicable
Density: 0.78 gram/ml
Solubility in Water: 29 mg/ml
pH as Supplied: Not Applicable

pH (Other): 4.38 (1% aqueous dispersion)

# **SECTION 10: STABILITY AND REACTIVITY**

Stability: Stable, material is non-reactive.

Conditions to Avoid: High temperatures (> 40° C) and moisture.

Materials to Avoid: Alkali materials

Hazardous Decomposition Products: None that are known.

Hazardous Polymerization: Will not occur.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

Possible Routes of Entry: Inhalation, eyes, and skin

Potential Health Effects from Over-exposure

Skin/ Eye Irritation: Direct contact with skin or eyes may cause irritation in some individuals. Prolonged or

repeated skin contact may cause allergic reactions in some individuals.

Inhalation: Inhalation of dust may cause respiratory tract irritation in some individuals.

Acute studies on a similar formulation:

Acute Oral  $LD_{50}$  (Rat): > 2,000 mg/kg Eye Irritation (Rabbit): Nonirritating Acute Dermal  $LD_{50}$  (Rabbit) > 2,000 mg/kg Dermal Irritation (Rabbit): Nonirritating Acute Inhalation  $LD_{50}$  (Rat): > 5.20 mg/L Sensitization (Guinea Pig): Nonsensitizer

Section 11 Notes: None of the components of this product are listed as carcinogenic by NTP, IARC, or

OSHA. No mutagenic or teratogenic effects.

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#### **SECTION 12: ECOLOGICAL INFORMATION**

Ecological Information: This product is not persistant and is not expected to impose any environmental risk.

Ecotoxicity Information: Aquatic toxicity tests with Dapnia magna resulted in a 48 hour EC50 > 100 mg/Land a 48

hour ED100 > 100 mg/L. No adverse effects were reported in tested nontarget organisms.

#### **SECTION 13: DISPOSAL CONSIDERATIONS**

Disposal Method: Open dumping or burning of this material or its packaging is prohibited. If spilled material cannot

be disposed of by use according to label instructions, one acceptable method of disposal is to incinerate in accordance with local, regional, and national environmental regulations.

Empty Container: Completely empty package into application equipment, rinse with water and add rinsate to

application equipment. Dispose of empty package in accordance with applicable environmental

regulations.

Section 13 Notes: Regulatory requirements are subject to change and acceptable methods of disposal can vary by

location. The appropriate agencies should be contacted for advisement prior to disposal.

## **SECTION 14: TRANSPORT INFORMATION**

ADR / RID Class: Land: Not controlled under ADR (Europe)

Water: Not controlled under IMDG IMDG Class: Air: IATA - DGR Class: Not controlled under IATA

Other: U.S. DOT: Not Regulated

Freight Classification: Insecticides, Fungicides N.O.I., Other Than Poisons. NMFC 155050 Class 60

#### **SECTION 15: REGULATORY INFORMATION**

US EPA SARA: No acute or chronic health hazards. No fire, release of pressure, or reactivity hazards.

**Registration Information** 

US: EPA Reg. No. 80289-9-69592

#### **SECTION 16: OTHER INFORMATION**

Reason for Revision: New Product MSDS. Supersedes MSDS dated: Not Applicable

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