

**SAFETY DATA SHEET****SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: **ENNOBLE™ BIOFUMIGANT**

REGISTRATION NO: 84059-26

MANUFACTURER: Marrone Bio Innovations

ADDRESS: 1540 Drew Ave., Davis CA, 95618

**EMERGENCY PHONE: INFOTRAC Chemical Response System  
US and Canada 1-800-535-5053 (24 hours)  
International 1-352-323-3500 (24 hours)**

OTHER CALLS: Marrone Bio Innovations 530-750-2800 (9am to 5 pm PST)

FAX PHONE: Marrone Bio Innovations 530-750-2808

PRODUCT USE: Bio-fumigant

**SECTION 2: HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW:**

May be sensitizing.

**HAZARD SYMBOLS:**

Pictogram None

Signal Word None

**HEALTH HAZARD STATEMENT**

None

**ENVIRONMENTAL HAZARD STATEMENT**

Environmental hazards unknown

**PRECAUTIONARY STATEMENTS**

Avoid direct contact or exposure. Use personal protective equipment. If irritation, sensitization or other symptoms occur, seek medical advice/attention

Dispose of in accordance with all applicable local, regional, national, and international regulations.

POTENTIAL ROUTES OF ENTRY: Oral, eye, and inhalation.

CARCINOGENICITY:

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OSHA: Not listed

ACGIH: Not listed

NTP: Not listed.

IARC: Not listed

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**SYNONYM: MBI-601 EPACTIVE INGREDIENT:*Muscodor albus* strain SA13 and spent and unspent fermentation mediaCAS NO.: None% WT: 100EXPOSURE LIMITS: None EstablishedOTHER INGREDIENTS: None**SECTION 4: FIRST AID MEASURES**

**EYES**: Hold eye open and rinse slowly and gently with water for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Do not use an eye ointment. Call poison control center or doctor for treatment advice.

**SKIN**: Remove contaminated clothing. Rinse skin immediately with plenty of water for at least 15-20 minutes. Call a poison control center or doctor for treatment advice.

**INHALATION**: Remove person to fresh air. If the person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment.

**INGESTION**: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or physician. Do not give anything by mouth to an unconscious person.

**SECTION 5: FIRE-FIGHTING MEASURES****FLAMMABLE LIMITS IN AIR, (% BY VOLUME)**

UPPER: Not applicable.

LOWER: Not applicable.

**AUTOIGNITION TEMPERATURE**: Not applicable.**EXTINGUISHING MEDIA**: Use extinguishing media appropriate for the surrounding fire.**SPECIAL FIRE FIGHTING PROCEDURES**: None**UNUSUAL FIRE AND EXPLOSION HAZARDS**: Dust may form explosive mixture with air in the presence of a suitable ignition source.**HAZARDOUS DECOMPOSITION PRODUCTS**: Unknown

**SAFETY DATA SHEET****SECTION 6: ACCIDENTAL RELEASE MEASURES**

**ACCIDENTAL RELEASE MEASURES:** Wear suitable clothing such as eye protection, long-sleeved shirt, pants and shoes with socks. If spilled, contain - prevent run off into drains and waterways. Absorb liquid with an inert absorbent material. Seal absorbent material in a closed labeled container and dispose of in accordance with local ordinances.

**SECTION 7: HANDLING AND STORAGE**

**HANDLING AND STORAGE:** Store in the closed, original container in a well-ventilated area out of direct sunlight. Keep containers closed when not in use. Empty container completely and dispose of in accordance with all applicable federal, state and local environmental regulations.

**OTHER PRECAUTIONS:** No special precautions.

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

**ENGINEERING CONTROLS:** Spill controls should be provided for working with large quantities.

**VENTILATION:** No TLV assigned. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and aerosols below the exposure levels. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**RESPIRATORY PROTECTION:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

**EYE PROTECTION:** Safety goggles or glasses with side shields advisable when handling liquid.

**SKIN PROTECTION:** Wear gloves made of Latex or other impervious material.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Clothing to prevent prolonged skin contact as needed such as long-sleeved shirt, long pants and shoes with socks.

**WORK HYGIENIC PRACTICES:** Wash any contamination from skin or eyes immediately. Wash hands and exposed skin before eating, drinking, smoking, after work, or using the toilet.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>PHYSICAL STATE:</b>	Solid
<b>COLOR:</b>	White
<b>ODOR:</b>	Light mucus smell
<b>pH:</b>	Not determined
<b>DENSITY:</b>	Not determined
<b>SOLUBILITY IN WATER:</b>	Miscible in water
<b>BOILING POINT/RANGE:</b>	Not determined
<b>FREEZING/MELTING POINT:</b>	Not determined
<b>FLASH POINT:</b>	Not applicable
<b>EVAPORATION RATE:</b>	Not determined

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FLAMMABILITY (SOLID, GAS):	Not determined
UPPER FLAMMABILITY LIMITS:	Not determined
LOWER FLAMMABILITY LIMITS:	Not determined
VAPOR PRESSURE:	Not determined
VAPOR DENSITY:	Not determined
RELATIVE DENSITY:	Not determined
SOLUBILITY IN OTHER SOLVENTS:	Not determined
PARTITION COEFFICIENT:	Not determined
AUTOIGNITION TEMPERATURE:	Not applicable
DECOMPOSITION TEMPERATURE:	Not determined
KINEMATIC VISCOSITY:	Not determined
DYNAMIC VISCOSITY:	Not determined
EXPLOSIVE PROPERTIES:	Not applicable
OXIDIZING PROPERTIES:	Not applicable

**SECTION 10: STABILITY AND REACTIVITY**

STABILITY: Material is non-reactive.

INCOMPATIBILITY (MATERIAL TO AVOID): None known

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None known

HAZARDOUS POLYMERIZATION: Not known to occur

CONDITIONS TO AVOID (POLYMERIZATION): None

**SECTION 11: TOXICOLOGICAL INFORMATION**

**WARNING:** If product comes in contact with eyes or skin, irritation may occur. May be sensitizing.

ACUTE ORAL TOXICITY LD <sub>50</sub> (rat):	>5000 mg/kg, not categorized
ACUTE DERMAL TOXICITY LD <sub>50</sub> (rat):	>5050 mg/kg, not categorized
ACUTE INHALATION LC <sub>50</sub> (rat):	> 5.28 mg/L, not categorized
EYE IRRITATION (rabbit):	Not categorized
SKIN IRRITATION (rabbit):	Not categorized
SKIN SENSITIZATION (guinea pig):	Not a sensitizer to guinea pigs

**SECTION 12: ECOLOGICAL INFORMATION**

Avian Acute Oral Toxicity: Unknown

Toxicity to freshwater aquatic life: Unknown

**SECTION 13: DISPOSAL CONSIDERATIONS**

Do not reuse containers. Dispose of in accordance with all applicable local, regional, national, and international regulations.

**SECTION 14: TRANSPORTATION INFORMATION**

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U.S. DOT: Not Regulated

IATA DGR: Not regulated

IMDG: Not Regulated

**SECTION 15: REGULATORY INFORMATION**

Allowable Tolerances: Residues of ENNOBLE are exempted from the requirement of a tolerance when used in accordance with good agricultural practices and label application instructions to agricultural commodities directed on the product label.

**INTERNATIONAL REGULATIONS**

TSCA: Exempt

**U.S. FEDERAL REGULATIONS**

CERCLA: Not applicable.

**SARA TITLE III HAZARD CLASSIFICATION SECTIONS 311 AND 312:**

Immediate (acute) Health: None

Delayed (chronic) Health: None

Fire: None

Sudden Release of Pressure: None

Reactivity: None

SARA 313: Not determined

U.S. STATE REGULATIONS: None

US STATE RIGHT-TO-KNOW REGULATIONS: None

**SECTION 16: OTHER INFORMATION**

SPECIAL HAZARDS: Not Determined

Date Issued:	09 July 2018
Revision:	2
Revision Note:	Update tradename

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