

SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **REGALIA[®] PTO** (synonym: MBI-10605)
 REGISTRATION NO: 84059-3
 MANUFACTURER: Marrone Bio Innovations
 ADDRESS: 1540 Drew Avenue, 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-based fungicide

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Causes eye irritation (Category 2B)
 Mild skin irritation (Category 3)
 Harmful if inhaled (Category 4)
 Harmful to aquatic life (Category 3)

HAZARD SYMBOLS:

Pictogram



Signal Word

Warning

HAZARD STATEMENTS

H316	Causes mild skin irritation
H320	Causes eye irritation
H332	Harmful if inhaled
H402	Harmful to aquatic life.

PRECAUTIONARY STATEMENTS.

P261	Avoid breathing dust, fumes, gas, mist, vapors or spray
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release into the environment.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable

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P312 P305 + P351 + PP338 P332 + P313 P337 + P313 P501	for breathing. Call a doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present, and easy to do. Continue rinsing. If skin irritation occurs, seek medical advice/ attention. If eye irritation persists: Get medical attention. Dispose of contents/ container to an approved waste disposal plant.
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POTENTIAL ROUTES OF ENTRY: Oral, eye, and inhalation.

CARCINOGENICITY:

OSHA: Not listed ACGIH: Not listed NTP: Not listed. IARC: Not listed

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

ACTIVE INGREDIENT:

Reynoutria spp. Extract

CAS NO. None

% WT 5

EXPOSURE LIMITS None Established

OTHER INGREDIENTS:

Water and other inert ingredients; USDA
 National Organic Program Compliant

SYNONYM: MBI-106-O5_

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.

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.

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.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, (% BY VOLUME)

UPPER: Not applicable.

LOWER: Not applicable.

IGNITABILITY: 205 °F or 96 °C

METHOD USED: METHOD USED: SW 1010

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AUTOIGNITION TEMPERATURE: Not applicable.

NFPA HAZARD CLASSIFICATION**HEALTH: 1****FLAMMABILITY: 1****REACTIVITY: 0****HMIS HAZARD CLASSIFICATION****HEALTH: 1****FLAMMABILITY: 1****REACTIVITY: 0**

EXTINGUISHING MEDIA: Use Foam, Carbon Dioxide, or Dry Chemical extinguishers.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide, smoke, fumes, and hydrocarbons and terpenes.

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.

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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

PHYSICAL STATE:	Liquid
COLOR:	Brown
ODOR:	Straw-like; spicy
pH:	5 to 8 (1% solution in water)
DENSITY:	1 g/mL
SOLUBILITY IN WATER:	Miscible in water
BOILING POINT/RANGE:	Not determined
FREEZING/MELTING POINT:	Not determined
FLASH POINT:	Not determined
EVAPORATION RATE:	Not determined
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 determined
DECOMPOSITION TEMPERATURE:	Not determined
KINEMATIC VISCOSITY:	Not determined
DYNAMIC VISCOSITY:	Not determined
EXPLOSIVE PROPERTIES:	Not determined
OXIDIZING PROPERTIES:	Not determined

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable.

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: This product causes eye irritation. This product causes mild skin irritation.

ACUTE ORAL TOXICITY LD ₅₀ :	>5000 mg/kg (rat). Not categorized
ACUTE DERMAL TOXICITY LD ₅₀ :	>5000 mg/kg (rabbit). Not categorized
ACUTE INHALATION LC ₅₀ :	>2.11 mg/L (rat). Category 4
EYE IRRITATION:	Minimally irritating (rabbit). Category 2B
SKIN IRRITATION:	Slightly irritating (rabbit). Category 3

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SKIN SENSITIZATION:

Non-sensitizing (guinea pigs). Not categorized

SECTION 12: ECOLOGICAL INFORMATION

This product poses acute toxicity to freshwater fish.

Avian Acute Oral Toxicity:

Bobwhite quail. LD₅₀ >2000 mg/kg-bw. Non-toxic. Category 5

Toxicity to freshwater aquatic life:

Fathead minnow (96-hour acute) LC₅₀ > 10.18 mg/L. Category 3Rainbow trout (96-hour) EC₅₀ = 17.885 mg/L Category 3*Daphnia magna* (48-hour acute) EC₅₀ = 50.0 mg/L AI. Category 3Freshwater algae (72-hour acute) EC₅₀ = 54.61 mg/L Category 3

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

Minimize drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

Bioconcentration potential: This material is not expected to bioconcentrate in organisms.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not reuse containers. Dispose of in accordance with all applicable federal, state, and local environmental regulations.

SECTION 14: TRANSPORTATION INFORMATION

U.S. DOT: Not Regulated

IATA DGR: Not regulated

IMDG: Not Regulated

Freight Classification: Fungicide. See NMFTA code.

SECTION 15: REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazardous information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION

Causes moderate eye irritation

SAFETY DATA SHEET**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:

New Jersey Right To Know Components: CAS No.:

Propylene glycol 57-55-6

1-Hexanol 111-27-3

Pennsylvania Right To Know Components: CAS No.:

Propylene glycol 57-55-6

1-Hexanol 111-27-3

California Proposition 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: OTHER INFORMATION

SPECIAL HAZARDS: Not Determined

Date Issued: 10 May 2016

Revision: 3

Revision Note: Update company address, make consistent with other company SDS documents

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