

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: 2121 Second Street, Suite B-107 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

HAZARD CLASSIFICATION: This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

EMERGENCY OVERVIEW: Potential eye and skin irritant

HAZARD SYMBOLS:

Pictogram



Signal Word

Warning**HAZARD STATEMENT:**

H316 Causes mild skin irritation
H320 Causes eye irritation

ENVIRONMENTAL HAZARD STATEMENT

H402 Harmful to aquatic life.

PRECAUTIONARY STATEMENTS

Prevention

P261 Avoid breathing fume/mist/vapors/spray
P281 Use personal protective equipment as required.
P284 Wear respiratory protection

Response

P332 + 313 If skin irritation occurs: Get medical attention

SAFETY DATA SHEET

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Disposal
P501 Dispose of in accordance with all applicable local, regional, national, and international regulations.

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

CARCINOGENICITY:

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

Physical State: liquid Odor: grass-like, spicy Color: brown

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

SAFETY DATA SHEET

METHOD USED: METHOD USED: SW 1010

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.

SAFETY DATA SHEET

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

PHYSICAL STATE:	Liquid
COLOR:	Brown
ODOR:	Straw-like; spicy
pH:	5.0- 6.0
DENSITY:	1.0 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 LD₅₀: >5000 mg/kg (rat). Category 4

ACUTE DERMAL TOXICITY LD₅₀: >5000 mg/kg (rabbit). Category 4

SAFETY DATA SHEET

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
SKIN SENSITIZATION:	Non-sensitizing (guinea pigs). Category 4

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 3
Rainbow trout (96-hour) EC₅₀ = 17.885 mg/L Category 3
Daphnia magna (48-hour acute) EC₅₀ = 50.0 mg/L AI. Category 3
Freshwater 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.

SAFETY DATA SHEET**CAUTION**

Causes moderate eye irritation

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:	18 July 2014
Revision Date:	2
Revision Note:	Edited sections 2 and 12

DISCLAIMER: IN NO EVENT SHALL MARRONE BIO INNOVATIONS BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES. THE DATA PROVIDED IS FOR GENERAL INFORMATION ONLY AND IS NOT INTENDED AS A COMPREHENSIVE GUIDE CONCERNING HAZARDS THAT MAY BE ASSOCIATED WITH THIS PRODUCT. USER ASSUMES ALL RESPONSIBILITY FOR FOLLOWING PROPER SAFETY PROTOCOL AND CONSULTING TRAINED PERSONNEL FOR CONTROL AND CONTAINMENT.