

SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **AzoxyBio™**

USEPA registration number: 89118-14-84059

SUPPLIER: Marrone Bio Innovations

ADDRESS: 1540 Drew Avenue, Davis CA, 95618, USA

**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 1-530-750-2800 (9am to 5 pm PST)

FAX PHONE: Marrone Bio Innovations 1-530-302-0189

PRODUCT USE: Refer to the product label for use instructions.

SECTION 2: HAZARDS IDENTIFICATION

Classification: The following hazard classification is in accordance with 29 CFR 1910.1200 [OSHA HCS 2012] in the United States of America, and WHMIS 2015 in Canada.

EMERGENCY OVERVIEW:

Acute inhalation toxicity 4
Eye irritation 2

HAZARD SYMBOLS:

Pictogram



Signal Word

Warning

HEALTH HAZARD STATEMENTS.

H320 Causes eye irritation
H332 Harmful if inhaled

PRECAUTIONARY STATEMENTS

P261 Avoid breathing mist/spray

P264 Wash thoroughly after handling

P271 Use only outdoors or in a well-ventilated area

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

P302 + P312 IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing;

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

P312 Call a POISON Center or doctor if you feel unwell

P337 + P313 If eye irritation persists: Get medical attention

P403 +P233 Store in a well-ventilated place. Keep container tightly closed

P405 Store locked up

P501 Dispose of contents/container in accordance with

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local/regional/national/international regulations.

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

<u>COMPONENT</u>	<u>CAS NUMBER</u>	<u>PERCENT BY WEIGHT (%)</u>
azoxystrobin	131860-33-8	18.4
<i>Reynoutria</i> spp. extract	none	10.2

Contains other ingredients not otherwise classified as hazardous or present in concentrations which warrant inclusion in this SDS.

SECTION 4: FIRST AID MEASURES

EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

SKIN: Call a POISON CENTER or doctor if you feel unwell.

INGESTION: Call a POISON CENTER or doctor if you feel unwell.

INHALATION: Remove person to fresh air and keep comfortable for breathing. Call a POISON Center or doctor if you feel unwell.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

Specific hazards: May produce toxic and irritant vapors

Special protective equipment: Wear self-contained breathing apparatus for fire fighting

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear respiratory protection. Wear protective gloves/protective clothing. Do not breathe mist/spray. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environment Precautions: Do not let product enter drains. Discharge into the environment must be avoided.

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Methods and Materials for Containment and Cleaning Up: Absorb using inert materials and dispose of in accordance with local regulations. Do not let the material dry before cleaning the spill.

SECTION 7: HANDLING AND STORAGE

GHS Precautions for Safe Handling: Avoid breathing mist/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area.

Conditions for Safe Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Avoid extreme temperatures

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	OSHA PEL	ACGIH TLV	AOEL
azoxystrobin	-	-	0.2 mg/kg/day
<i>Reynoutria</i> spp. extract	-	-	-

Engineering Controls: This product is intended to be used outdoors. If necessary, provide local exhaust ventilation and use appropriate containment procedures to maintain airborne levels at a safe concentration.

Personal Protective Equipment: Applicators and other handlers must wear: Long-sleeved shirt and long pants; Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber; Shoes plus socks.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
COLOR:	Dark brown
ODOR:	None
ODOR THRESHOLD:	Not available ³
pH at 22 °C:	6.5
DENSITY at 22.3 °C:	1.13 g/mL
SOLUBILITY IN WATER:	Not available
BOILING POINT/RANGE:	Not determined
FREEZING/MELTING POINT:	Not determined
FLASH POINT:	Non-flammable
EVAPORATION RATE:	Not determined
FLAMMABILITY (SOLID. GAS):	Not determined
UPPER FLAMMABILITY LIMITS:	Not determined
LOWER FLAMABILITY LIMITS:	Not determined
VAPOR PRESSURE:	Not determined
VAPOR DENSITY:	Not determined
RELATIVE DENSITY:	Not determined
SOLUBILITY IN OTHER SOLVENTS:	Not determined

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PARTITION COEFFICIENT:	Not determined
AUTOIGNITION TEMPERATURE:	Not applicable
DECOMPOSITION TEMPERATURE:	Not determined
VISCOSITY:	Non-newtonian
EXPLOSIVE PROPERTIES:	Not determined
OXIDIZING PROPERTIES:	Not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Strong oxidizers
Chemical Stability:	Stable under normal conditions
Hazardous Reactions:	No data available
Conditions to Avoid:	High temperatures, high pH
Incompatible Materials:	Strong oxidizers
Hazardous Decomposition Products:	No data available

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY LD ₅₀ :	5000 mg/kg
ACUTE DERMAL TOXICITY LD ₅₀ :	5000 mg/kg
ACUTE INHALATION LC ₅₀ :	>2.0 mg/L
EYE IRRITATION:	Rabbit: Corneal opacity and positive conjunctivitis clearing by 72 hours. (similar formulation)
SKIN IRRITATION:	Rabbit: Slight erythema and/or slight edema (severity 1.0 - 2.0) clearing by 72 hours. (similar formulation)
SKIN SENSITIZATION:	Guinea pig: Not a sensitizer (similar formulation).
GERM CELL MUTAGENICITY	no data available
CARCINOGENICITY	Not classified as carcinogenic by IARC or ACGIH
REPRODUCTIVE TOXICITY	no data available
STOT-Single Exposure	no data available
STOT-Repeated Exposure	no data available
ASPIRATION HAZARD	no data available
ACUTE EXPOSURE SYMPTOMS	azoxystrobin: may cause respiratory tract pain and irritation, eye pain, skin redness, headache, and dizziness.
CHRONIC EXPOSURE SYMPTOMS	no data available
INTERACTIONS	no data available

SECTION 12: ECOLOGICAL INFORMATION

Azoxystrobin:	
Bird LD ₅₀	> 2000 mg/kg
Bird Dietary LD ₅₀	> 1179 mg/kg feed
Fish Acute 96-h LC ₅₀	0.47 mg/L
Fish Chronic 30-d NOAEC	0.147 mg/L
Aquatic Invertebrate Acute EC ₅₀	0.23 mg/L
Aquatic Crustacean Acute LC ₅₀	0.055 mg/L
Algae Acute 72-h EC ₅₀	0.36 mg/L

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Honeybee Acute 48-h LD ₅₀	> 25 µg/bee
Earthworm Acute 14-d LC ₅₀	283 mg/kg
Soil Degradation DT ₅₀	180 d
Aqueous Photolysis DT ₅₀	pH 7 8.7 d
Aqueous Hydrolysis DT ₅₀	pH7 Stable
Bioaccumulation Potential	no data available

Reynoutria spp. toxicity to freshwater aquatic life: Fathead Minnow (96-hour acute toxicity) LC₅₀ > 10.18 mg/L.
Category 2

Testing all beneficial insects, in all situations, mixtures and combinations, is not feasible. Prior to treating where beneficial insects are released, consult with an extension specialist or with the product manufacturer.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not reuse containers. Dispose of contents/container in accordance with local/regional/national/international regulations. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA regional Office for guidance. Dangerous to the environment. Avoid all releases to sewer.

SECTION 14: TRANSPORTATION INFORMATION

DOT (US) Ground – Non-Bulk (<= 119 Gallons): Not regulated

DOT (US) – Marine or Bulk (> 119 Gallons):

UN-Number: 3082

Class: 9

Packing Group: III

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Azoxystrobin mixture)

Other: Marine pollutant (49 CFR 171.4)

Exemptions: Not a dangerous good if single or combination packaging contains a net quantity per single or inner packaging of 5 L or less.

Air Transport (IATA)

UN-Number: 3082

Class: 9

Packing Group: III

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Azoxystrobin mixture)

Other: Marine pollutant (49 CFR 171.4)

Exemptions: "Not Restricted" as per IATA special provision A197 provided that the net quantity in any receptacle does not exceed 5 kg or 5 L and the packaging used meets defined standards.

SECTION 15: REGULATORY INFORMATION

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FIFRA: This mixture is a pesticide product as per 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 hazard information required for safety data sheets (SDS) and material safety data sheets (MSDS), 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. Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

SECTION 16: OTHER INFORMATION

Date Issued:	23 May 2022
Revision:	2
Revision Note:	Add USEPA registration number

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