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Revision Date: June 27, 2018



SAFETY DATA SHEET ArmorTech Zoxy-PG

SECTION 1: IDENTIFICATION

Product Name: ArmorTech Zoxy-PG **EPA Registration No.:** 53883-440-86064

Recommended Use: Fungicide; See product label for a complete list of uses and use sites. **Restrictions on Use:** See product label for any restrictions on the use of this product.

Chemical Family: N/A – Multiple active ingredients

Chemical Name of Azoxystrobin
Active Ingredient(s): Propiconazole
Manufactured for: United Turf Alliance

8104 Cumming Hgwy, #403-282

Canton, GA 30115

FOR FIRE, SPILL, AND/OR LEAK EMERGENCIES CONTACT: CHEMTREC 1-800-424-9300

FOR MEDICAL EMERGENCIES AND HEALTH AND SAFETY INQUIRIES CONTACT: Safety Call 1-866-897-8050

SECTION 2: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW: Greenish brown granules with a faint odor. May cause mild but temporary eye irritation if dust enters eye.

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

This product does not meet the regulatory definition of a hazardous chemical under 29 CFR 1910.1200. However, good industrial hygiene practices should be used in the manufacture and handling of the product.

Signal Word: CAUTION FIFRA Label Signal Word

Hazard Statement(s): None required

Precautionary Statement(s):

Prevention: No statements required.Response: No statements required.Storage: No statements required.Disposal: No statements required.

SECTION 3: COMPOSTION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %
Propiconazole	60207-90-1	0.75%
Azoxystrobin	131860-33-8	0.31%

^{*}Ingredients not listed or listed with a weight % range are considered a trade secret and are withheld under 29 CFR 1910.1200(i).

SECTION 4: FIR	SECTION 4: FIRST AID MEASURES			
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eye. Call a poison control center or doctor for treatment advice.			
IF ON SKIN:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.			
IF INHALED:	Move person to fresh air. If 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 further treatment advice.			
IF INGESTED:	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 do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.			

Most important symptoms/effects, acute and delayed: Temporary mechanical eye irritation including redness, itching, and tearing due to dust particles.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Foam, dry chemical, carbon dioxide or water spray

Unsuitable Extinguishing Media: Water jet

Hazardous Combustion Products: Thermal d

Special Protective Equipment &

Precautions:

Thermal decomposition may produce oxides of nitrogen and carbon. Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam and/or dry chemical are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run-off. Wear self-contained breathing apparatus and full fire-fighting turn-out gear

(Bunker gear).

Unusual Fire & Explosion Hazards: None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: See Section 8 for personal protection equipment.

Environmental Precautions: Keep spilled material and any rinsate from contaminating soil or from entering

sewage and drainage systems and bodies of water.

Methods for Containment: Isolate the spill area. Keep unnecessary and unprotected personnel from

entering. Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as many spilled granules as possible for reuse. Place contaminated material in appropriate container for disposal. After

Methods for Clean-up: Place contaminated material in appropriate container for disposal. After

removal, flush contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container. Do not put

spilled material back in the original container.

Other Information: None known

SECTION 7: HANDLING AND STORAGE

Handling: RECOMMENDATIONS ARE INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL

BLENDING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the product label

and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Handle and open container in a manner as to prevent spillage. Do not eat, drink or smoke while handling this

product.

Storage: See pesticide label for full information on product storage. Do not contaminate water, food

or feed by storage of this product. Store away from sources of heat, out of direct sunlight and away from incompatible materials. Pesticides should be stored in secured areas away from

children and animals.

Storage Temperature (Min/Max): Not determined.

Product Incompatibilities: None known

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Users of a pesticide product must refer to the product label for personal protective equipment requirements.

Exposure Guidelines:

COMPONENT	OSHA PEL	ACGIH TLV	NIOSH REL
No components listed			

Engineering Controls: Provide general or local exhaust ventilation systems to maintain airborne

concentrations below OSHA PELs or other specified exposure limits. Local exhaust

ventilation is preferred.

Respiratory Protection: In areas of poor ventilation, use a NIOSH approved respirator with

cartridges/canisters approved for general particulates.

Eye Protection: Chemical goggles or safety glasses and full-face shield.

Protective Gloves: Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile,

neoprene rubber, polyvinyl chloride (PVC) or Viton.

Other Protective Clothing: Long-sleeved shirt, long pants and shoes plus socks.

General Safety Measures: Wash hands before eating, drinking, chewing gum, using tobacco, or using

the toilet. Remove clothing immediately after handling this product. Wash outside of gloves before removing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately

from other laundry.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Greenish brown Upper/Lower Flammability Limits: Not determined

granules

Odor: Faint Vapor Pressure: Not determined **Odor Threshold:** Not determined Not determined Vapor Density: **Relative Density (Pour Density):** pH (1% aqueous suspension): 6.0 - 6.50.836 g/mL (typical) **Melting /Freezing Point:** Not determined Solubility: Not determined **Partition Coefficient: Boiling Point/Range:** Not determined Not determined **Auto-ignition Temperature:** Flash Point: Not applicable Not determined **Evaporation Rate:** Not determined **Decomposition Temperature:** Not determined Flammability: Not determined Not determined **Viscosity:**

SECTION 10: STABILITY AND REACTIVITY

Reactivity: No hazardous chemical reactions known.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: No potential for hazardous reactions known.

Conditions to Avoid: None known Incompatible Materials: None known

Hazardous Decomposition Products: May decompose to oxides of nitrogen and carbon under fire

conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eye contact, Skin contact, Inhalation, Ingestion

Symptoms of Exposure: Temporary mechanical eye irritation including redness, itching, and tearing due

to dust particles.

Oral LD₅₀: >5,000 mg/kg (rat)(Based upon similar composition)

Dermal LD₅₀: >5,000 mg/kg (rat) (Based upon similar composition)

Inhalation LC₅₀: Not available

Eye Irritation/Damage: Mildly irritating (rabbit) (Based upon similar composition) **Skin Corrosion/Irritation:** Slightly irritating (rabbit) (Based upon similar composition)

Skin Sensitization: Non-sensitizer (Based upon similar composition)

Chronic/Subchronic Toxicity: Azoxystrobin: In a rat 90-day feeding study, liver toxicity was observed at

 $2,\!000$ ppm. This was manifested as gross distension of the bile duct, increased numbers of lining cells and inflammation of the duct. No

toxicologically significant effects were seen in repeat dose dog studies. Data

reviews do not indicate any potential for endocrine disruption.

Mutagenicity: No data available

Reproductive Toxicity: Azoxystrobin: Shows weak chromosomal damage in mammalian cells at

cytotoxic levels. Negative in whole animal assays for chromosomal and DNA damage at high dosages (≥2,000 mg/kg). In rabbits, no effect was observed up to the highest dose level (500 mg/kg/day). In rats, developmental effects

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were seen only at maternally toxic doses (100 mg/kg/day).

Neurotoxicity: Azoxystrobin: There is no evidence of neurotoxicity in any of the studies

conducted with azoxystrobin.

Propiconazole: A clinical study in rats demonstrated piloerection, diarrhea

and tip toe gait at the LOAEL of 100 mg/kg/day.

Target Organs:No data availableAspiration Hazard:No data availableCarcinogenicity:No data available

Chemical Name	ACGIH	IARC	NTP	OSHA
No components listed				

SECTION 12: ECOLOGICAL INFORMATION

Environmental Hazards Statement from FIFRA Regulated Pesticide Label:

This pesticide is toxic to freshwater and estuarine/marine fish and aquatic invertebrates. Do not apply directly to water except as specified on this label. For terrestrial uses: 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 washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

The active ingredient, azoxystrobin, in this product can be persistent for several months or longer. Azoxystrobin is known to leach through soil to ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

Notify state and/or federal authorities and United Turf Allinace immediately if you observe any adverse environmental effects due to use of this product.

ECOTOXICITY DATA:

Fish Toxicity: Azoxystrobin: Rainbow Trout 96 hr $LC_{50} = 470$ ppb

Propiconazole: Rainbow Trout 96 hr LC_{50} = 850 $\mu g/L$

Aquatic Invertebrate Toxicity: Azoxystrobin: Daphnia magna 48 hr $EC_{50} = 259$ ppb

Propiconazole: Daphnia magna 48 hr LC₅₀ = 1300 μg/L

Aquatic Plant Toxicity: Azoxystrobin: Green algae 5-day $EC_{50} = 106 \text{ ppb}$

Avian Toxicity: Propiconazole: Bobwhite quail oral LD₅₀ = 2,825 mg/kg

Honeybee Toxicity: No data available

ENVIRONMENTAL EFFECTS:

Persistence and Degradability:No data availableBioaccumulation:No data availableMobility:No data availableOther Adverse Effects:No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Refer to the pesticide label for full information on disposal. Pesticide wastes are

toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in

proper disposal methods.

Container Disposal: Refer to the pesticide label for full information on disposal. When possible, triple

rinse the container and offer for recycling if available.

RCRA Characteristics: It is the responsibility of the individual disposing of this product to determine the

RCRA classification and hazard status of the waste.

SECTION 14: TRANSPORTATION INFORMATION

DOT

(Ground): Not regulated

IMDG UN3077, Environmentally hazardous substance, solid, n.o.s (azoxystrobin, propiconazole), 9, PG

(Sea): III, Marine Pollutant

IATA UN3077, Environmentally hazardous substance, solid, n.o.s (azoxystrobin, propiconazole), 9, PG

(Air): |||

SECTION 15: REGULATORY INFORMATION

Labeling Requirements Under FIFRA: This chemical is a pesticide product registered by the 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 and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION

Causes moderate eye irritation. Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. 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.

TSCA Inventory: This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA

regulated use.

SARA Title III Information:

Section 302 – Extremely hazardous substances: None

Section 311/312 – Hazard Categories: Immediate (Acute)

Section 313 – This product contains a chemical or chemicals which are subject to the reporting

requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS Number	Weight %
Propiconazole	60207-90-1	0.75%

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CERCLA – This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Chemical Name	CAS Number	RQ	Quantity of Finished Product
None listed			

CALIFORNIA PROPOSITION 65:

Chemical Name	CAS Number	Prop 65 Category(ies)
None listed		

U.S. STATE RIGHT-TO-KNOW REGULATIONS:

Chemical Name	New Jersey	Massachusetts	Pennsylvania
None listed			

SECTION 16: OTHER INFORMATION

Disclaimer: This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. To the extent consistent with applicable law, neither United Turf Alliance, LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED TURF ALLIANCE, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED TURF ALLIANCE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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Document Superseded: N/A – New document

Revision Note: