

MATERIAL SAFETY DATA SHEET

Emergency Phone: 1-800-308-5391

Effective Date: May 21, 2010

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ArmorTech PAC 223
PRODUCT DESCRIPTION: A plant growth regulator.
EPA Reg. No. 80697-4-86064

COMPANY IDENTIFICATION:

United Turf Alliance
12480 Ford Drive
Fishers, IN 46038

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>Chemical Name</u>	<u>Chemical Formula</u>	<u>CAS Number</u>	<u>Composition</u>
Paclobutrazol	((±)-(R*,R*)-β-[(4-chlorophenyl)methyl]-α-(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol)	C ₁₅ H ₂₀ ClN ₃ O	76738-62-0	22.3%

3. HAZARD IDENTIFICATION

For chemical emergency assistance (spill, leak, fire, or accident) call PROSAR at 1-800-308-5391.

HEALTH HAZARDS: Harmful if swallowed, inhaled or absorbed through skin.

ENVIRONMENTAL HAZARDS: This product is toxic to aquatic organisms. 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 washwaters or rinsate.

PHYSICAL OR CHEMICAL HAZARDS: Mechanical sparks, open flame and hot surfaces may cause ignition of this product. Thermal decomposition may generate irritating and possibly toxic gasses.

4. FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact PROSAR at 1-800-308-5391 for emergency medical treatment information.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 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 SWALLOWED: 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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 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 and then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

NOTE TO PHYSICIAN: There is no specific antidote if this product is ingested, treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash point (Closed Cup): > 221°F

Flammability: N/A

Fire and Explosion Hazards: This product has minimum ignition energy between 100 and 300 millijoules. Mechanical sparks, open flames and sufficiently hot surfaces may serve as ignition sources.

Suitable Extinguishing Media: Use foam, dry chemical or carbon dioxide.

Fire Fighting Equipment: Wear full fire fighting turn-out gear (Bunker gear) and self-contained breathing apparatus.

Fire Fighting Procedures: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Containers exposed to fire should be kept cool with water spray. Foam and/or dry chemicals are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run off.

Hazardous Combustion Products: This product can release irritating and/or toxic fumes when burned.

NFPA Hazard Ratings: Health – 1 / Flammability – 1 / Instability - 0

6. ACCIDENTAL RELEASE MEASURES

For chemical emergency assistance (spill, leak, fire, or accident) call PROSAR at 1-800-308-5391. Clean up spills immediately, observing precautions in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Dispose of this product and its container at a hazardous or special waste collection point in accordance with national and regional regulations.

Implement containment to avoid environmental contamination. Absorb small spills with sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal. Scrub area with hard water detergent (such as Tide, Joy, Spic and Span, etc.) and pick up wash liquid with additional absorbent material and place into containers for disposal.

7. HANDLING AND STORAGE

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.

Keep out of reach of children. Do not contaminate water, food, or feed by storage or disposal. Store in original container in a secured dry storage area and keep above freezing temperatures.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Refer to the product label for additional information regarding application of this product.

PERSONAL PROTECTIVE EQUIPMENT:

Handlers should wear long sleeved shirt and long pants, chemical resistant gloves such as barrier laminate, butyl rubber, nitrile rubber or Viton, and shoes plus socks.

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/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off-white or beige liquid

Odor: Not available

pH: Not available

Specific Gravity: 1.08 g/cm³

Solubility in Water: Miscible.

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Flame and open sources of heat.

CHEMICAL STABILITY: Stable under normal use and storage conditions.

INCOMPATIBILITY WITH OTHER MATERIALS: Oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition will generate toxic fumes.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY

Oral LD₅₀ (rat): > 2,000 mg/kg

ACUTE DERMAL TOXICITY

Dermal LD₅₀ (rat): > 2,000 mg/kg

ACUTE INHALATION TOXICITY

Inhalation LC₅₀ (rat): > 2.5 mg/L (4 hr)

EYE IRRITATION: Mildly irritating

SKIN IRRITATION: Non-irritating

DERMAL SENSITIZATION: Not a contact sensitizer

CARCINOGENICITY:

IARC: Not listed

NTP: Not listed

OSHA: Not listed

ACGIH: Not listed

MUTAGENIC DATA: No evidence of effects during *in vivo* or *in vitro* studies.

REPRODUCTIVE TOXICITY: No evidence of reproductive effects.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This product is toxic to aquatic organisms. Do not apply directly to water, or to areas where surface water is present, or to inter-tidal areas below mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

AQUATIC TOXICITY

Bluegill (96hr LC₅₀): 23.6 ppm

Daphnia Magna (48hr EC₅₀): 33.2 ppm

AVIAN TOXICITY

Mallard Duck (LC₅₀): > 7,913 mg/kg

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide wastes are toxic and improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of according to the instructions in the label, contact your State Pesticide or Environmental Control Agency, or the hazardous waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL:

Nonrefillable container, do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times, then offer container for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: Not Regulated by DOT

MARINE POLLUTANT: No

15. REGULATORY INFORMATION

FIFRA –

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act. The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide.

CERCLA REPORTABLE QUANTITY –

None

SARA Title III – Section 302 Extremely Hazardous Substances

Not listed

SARA Title III – Section 311 Hazard Categories

Immediate

SARA Title III – Section 312 Threshold Planning Quantity

The threshold planning quantity (TPQ) for this product treated as a mixture is 10,000 lbs. This product contains no ingredients with a TPQ of less than 10,000 lbs.

SARA Title III – Section 313 Reportable Ingredients

None

CALIFORNIA PROP 65 STATUS –

This product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

16. OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

DISCLAIMER

The information and recommendations contained herein are based upon data believed to be correct. However, **no guarantee or warranty of any kind, expressed or implied, is made** with respect to the information contained herein. United Turf Alliance assumes no responsibility for results obtained or for incidental or consequential damages arising from the use of these data.