

## MATERIAL SAFETY DATA SHEET

### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>COMPANY ADDRESS:</b>	<b>EMERGENCY TELEPHONE NUMBERS:</b>
United Turf Alliance, LLC	(800) 424-9300 (CHEMTREC, transportation and spills)
8014 Cumming Highway, Suite 403	
Canton, GA 30115	
PRODUCT NAME :	<b>ArmorTech TEB 360</b>
CHEMICAL NAME :	Tebuconazole: a-[2-(4-chlorophenyl)ethyl]-a-(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol
CHEMICAL FAMILY :	Triazole fungicide
PRODUCT CODE :	EPA Reg. No. 69361-27-86064

### SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
Tebuconazole	38.7%	107534-96-3	Not Established	Not Established

### SECTION 3 – HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

**HEALTH HAZARDS:** Moderate eye irritant  
**PHYSICAL HAZARDS:** May release toxic fumes if burned  
**ENVIRONMENTAL HAZARDS:** Tebuconazole is toxic to aquatic organisms

### SECTION 4 – FIRST AID MEASURES

**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 a 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 to 20 minutes. Call a poison control center or doctor for treatment advice.

**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 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.

**NOTE TO PHYSICIAN:** No specific antidote. Treat symptomatically. Symptoms of Poisoning: The compound does not cause any definite symptoms that would be diagnostic. Contact with the eyes may cause irritation.

Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

### SECTION 5 - FIRE FIGHTING MEASURES

**FLASHPOINT (method):** > 200 F

**FLAMMABLE LIMITS (LFL-UFL):** Unknown

**FIRE AND EXPLOSION HAZARD:** Can burn in fire, releasing toxic gases from thermal decomposition or combustion.

**EXTINGUISHING MEDIA:** Use foam, dry chemical, carbon dioxide, or water spray when fires involve this

material.

**FIRE FIGHTING INSTRUCTIONS:** Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Dike and collect water used to fight fire to prevent environmental damage due to run off.

**FIRE FIGHTING EQUIPMENT:** Self-contained breathing apparatus with full face-piece.

**HAZARDOUS COMBUSTION PRODUCTS:** Hydrogen chloride, hydrogen cyanide, Oxides of nitrogen, carbon monoxide.

### **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

**SMALL SPILL:** Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.

**LARGE SPILL:** Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

Wear appropriate personal protective equipment (PPE). [See Section 8 - Exposure Controls, Personal Protection.]

### **SECTION 7 - HANDLING AND STORAGE**

KEEP OUT OF REACH OF CHILDREN!

**HANDLING:** Use only in a well-ventilated area. Wear appropriate safety equipment when handling.

**STORAGE:** Store in cool well ventilated area. Store in original container with lid tightly closed. Keep away from food, feed and drinking water.

### **SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION**

**EXPOSURE LIMITS (8 hour TWA, ppm):** Refer to Section 3.

**ENGINEERING CONTROLS:** Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Local mechanical exhaust ventilation may be required. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

#### **PERSONAL PROTECTIVE EQUIPMENT:**

**EYE PROTECTION** - Safety glasses or goggles.

**CLOTHING** - Long-sleeved shirt and long pants, Shoes plus socks.

**GLOVES** - Chemical-resistant gloves, such as barrier laminate, or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride or Viton®.

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.

**USER SAFETY RECOMMENDATIONS:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL DESCRIPTION:** Off-white viscous liquid  
**ODOR:** No appreciable odor  
**MOLECULAR WEIGHT (technical):** 307.8  
**BOILING POINT:** > 210 F  
**SPECIFIC GRAVITY:** 1.1 g/ml (9.2 lb/gal) @ 25°C (77°F)  
**pH:** 6.7  
**VAPOR PRESSURE (technical):** 9.8 x 10<sup>-9</sup> mm Hg  
**WATER SOLUBILITY:** Dispersible

## SECTION 10 - STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable, however may decompose if heated.  
**CONDITIONS TO AVOID:** Avoid temperatures above (115°F, 46°C) and below 25°F (-6°C).  
**INCOMPATIBILITY WITH OTHER MATERIALS:** Acidic and oxidizing materials  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Hydrogen chloride, Oxides of nitrogen  
**HAZARDOUS POLYMERIZATION:** Product will not undergo polymerization.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### **ACUTE TOXICITY:**

Oral LD <sub>50</sub> (rat)	-	> 2,000 mg/Kg
Dermal LD <sub>50</sub> (rat)	-	> 2,000 mg/Kg
Inhalation LC <sub>50</sub> (rat)	-	> 0.5 mg/L (highest dose tested)
Eye Irritation (rabbit)	-	Moderate
Skin Irritation (rabbit)	-	Mild
Sensitization (guinea pig)	-	Non-sensitizer

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** None known.

### **CARCINOGEN STATUS:**

OSHA – No  
 NTP – No  
 IARC – No

**MUTAGENIC DATA:** Preponderance of evidence indicates that tebuconazole is non-mutagenic.

## SECTION 12 – ECOLOGICAL INFORMATION

**ENVIRONMENTAL SUMMARY:** This pesticide is toxic to estuarine and marine invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

### **FISH TOXICITY:** (technical)

96 hour LC<sub>50</sub>, Rainbow trout - 4.4 ppm  
 96 hour LC<sub>50</sub>, Bluegill - 5.7 ppm

### **AVIAN TOXICITY:** (technical)

Oral LD<sub>50</sub>, Bobwhite quail - 1,900 mg/Kg  
 Oral LD<sub>50</sub>, Mallard duck - unknown

**BEE TOXICITY:** (technical) Non-toxic

### **SECTION 13 - DISPOSAL CONSIDERATIONS**

Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### **SECTION 14 – TRANSPORT INFORMATION**

<b>DOT SHIPPING DESCRIPTION:</b>	Not regulated by DOT
<b>DOT HAZARD CLASS:</b>	N/A
<b>UN NUMBER:</b>	N/A
<b>DOT PACKING GROUP:</b>	N/A
<b>DOT PRIMARY/SECONDARY LABEL:</b>	N/A
<b>DOT PRIMARY/SECONDARY PLACARD:</b>	N/A
<b>DOT EMERGENCY RESPONSE GUIDE #:</b>	N/A

### **SECTION 15 – REGULATORY INFORMATION**

<b>CERCLA REPORTABLE QUANTITY:</b>	Not listed
<b>SARA TITLE III STATUS:</b>	
311/312 Hazard Categories-	Immediated and Delayed Health
313 Toxic Chemicals -	None known
<b>CALIFORNIA PROP 65:</b>	Not listed

### **SECTION 16 – OTHER INFORMATION**

**DISCLAIMER:** The information presented herein is based on available data from reliable sources and is correct to the best of United Turf Alliance's knowledge. United Turf Alliance makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

<b>DATE PREPARED:</b>	March 29, 2011
<b>REFERENCE:</b>	Minor revisions to Section 14 DOT and Section 15 Regulatory