

# SAFETY DATA SHEET

## ArmorTech PGR 113 MC

### SECTION 1: IDENTIFICATION

**Product Name:** ArmorTech PGR 113 MC  
**EPA Registration No.:** 86064-3  
**Recommended Use:** Plant Growth Regulator; 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:** Not determined  
**Chemical Name of Active Ingredient(s):** Trinexapac-ethyl  
**Manufactured for:** United Turf Alliance, LLC  
8014 Cumming Highway, Suite 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: Poison Control 1-800-222-1222**

### SECTION 2: HAZARD(S) IDENTIFICATION

**EMERGENCY OVERVIEW:** Amber liquid with no odor. Causes moderate to serious eye irritation.

**OSHA HCS CLASSIFICATION (29 CFR 1910.1200)**

Eye Damage/Irritation	Category 2A
Flammable Liquids	Category 4
Reproductive Toxicity	Category 1B

**Signal Word:** DANGER



**Hazard Statement(s):** Causes serious eye irritation.  
Combustible liquid.  
May damage fertility or the unborn child.

**Precautionary Statement(s):**

**Prevention:** Wear eye protection/face protection.  
Wash face, hands and any exposed skin thoroughly after handling.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

**Response:** **IF IN 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 advice/attention.

**IF EXPOSED OR CONCERNED:** Get medical advice/attention.

**IN CASE OF FIRE:** Use carbon dioxide, dry chemical or alcohol resistant foam to extinguish.

**Storage:** Store locked up. Store in a well-ventilated place. Keep cool.

**Disposal:** Dispose of contents/container in accordance with Federal, state and local laws and regulations.

The following percentage of the mixture consists of components with unknown hazards regarding the acute toxicity:

- 46.25% Acute dermal toxicity
- 88.35% Acute inhalation toxicity

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS Number	Weight %
Tetrahydrofurfuryl alcohol	97-99-4	44.0 – 48.0%
Trinexapac-ethyl	95266-40-3	11.3%

\*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: FIRST AID MEASURES**

<b>IF IN EYES:</b>	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.
<b>IF ON SKIN:</b>	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.
<b>IF INHALED:</b>	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.
<b>IF INGESTED:</b>	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:** Serious eye irritation, reproductive toxicity

**Note to Physician:** If a large amount has been ingested, lavage stomach. An aqueous suspension of activated charcoal can be given to absorb remaining toxicant. Treat symptomatically.

**SECTION 5: FIRE-FIGHTING MEASURES**

<b>Suitable Extinguishing Media:</b>	Foam, dry chemical, carbon dioxide or water spray
<b>Unsuitable Extinguishing Media:</b>	Water jet
<b>Hazardous Combustion Products:</b>	Burning may produce oxides of nitrogen and carbon.
<b>Special Protective Equipment &amp; Precautions:</b>	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).
<b>Unusual Fire &amp; Explosion Hazards:</b>	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 and eliminate sources of heat, sparks or flames. Absorb small spills with sand, vermiculite or other inert absorbent. Avoid using combustible materials such as sawdust or cloth rags. 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.

**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. Immediately wash off accidental splashes of the concentrate or spray mixture from skin, clothing and out of eyes.

**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. If crystals form during storage, store above 70°F, shaking periodically until crystals are dissolved.

**Storage Temperature (Min/Max):** Store above 32°F.

**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.

<b>Respiratory Protection:</b>	In areas of poor ventilation, use a NIOSH approved respirator with cartridges/canisters approved for pesticides.
<b>Eye Protection:</b>	Chemical goggles or safety glasses and full-face shield.
<b>Protective Gloves:</b>	Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC) or Viton.
<b>Other Protective Clothing:</b>	Long-sleeved shirt, long pants and shoes plus socks.
<b>General Safety Measures:</b>	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**

<b>Appearance:</b>	Amber liquid	<b>Upper/Lower Flammability Limits:</b>	Not determined
<b>Odor:</b>	None	<b>Vapor Pressure:</b>	Not determined
<b>Odor Threshold:</b>	Not determined	<b>Vapor Density:</b>	Not determined
<b>pH (1% dispersion):</b>	3.63	<b>Relative Density (@24°C):</b>	1.07 (typical)
<b>Melting /Freezing Point:</b>	Not determined	<b>Solubility (in water):</b>	10.2 g/L (25°C)
<b>Boiling Point/Range:</b>	Not determined	<b>Partition Coefficient:</b>	Not determined
<b>Flash Point:</b>	189°F (87°C)	<b>Auto-ignition Temperature:</b>	Not determined
<b>Evaporation Rate:</b>	Not determined	<b>Decomposition Temperature:</b>	Not determined
<b>Flammability:</b>	Not applicable	<b>Viscosity:</b>	Not determined

**SECTION 10: STABILITY AND REACTIVITY**

<b>Reactivity:</b>	No hazardous chemical reactions known.
<b>Chemical Stability:</b>	Stable under normal storage and handling conditions.
<b>Possibility of Hazardous Reactions:</b>	No potential for hazardous reactions known.
<b>Conditions to Avoid:</b>	Temperatures below 32°F. Excessive heat.
<b>Incompatible Materials:</b>	None known
<b>Hazardous Decomposition Products:</b>	May create oxides of carbon and nitrogen in fire conditions.

**SECTION 11: TOXICOLOGICAL INFORMATION**

<b>Likely Routes of Exposure:</b>	Eye contact, Skin contact, Inhalation, Ingestion
<b>Symptoms of Exposure:</b>	Serious eye irritation (eye contact)
<b>Oral LD<sub>50</sub>:</b>	3,558 mg/kg (rat); Estimated based upon component data.
<b>Dermal LD<sub>50</sub>:</b>	4,784 mg/kg (rat); Estimated based upon component data.
<b>Inhalation LC<sub>50</sub>:</b>	Not determined
<b>Eye Irritation/Damage:</b>	Serious eye irritation (rabbit); Estimated based upon component data.
<b>Skin Corrosion/Irritation:</b>	No irritation (rabbit); Estimated based upon component data.
<b>Skin Sensitization:</b>	Non-sensitizer; Estimated based upon component data.
<b>Chronic/Subchronic Toxicity:</b>	Repeated dose toxicity of tetrahydrofurfuryl alcohol on rat – NOAEL = 35 mg/kg

**Mutagenicity:** No data available  
**Reproductive Toxicity:** Tetrahydrofurfuryl alcohol has shown reproductive toxicity in both male and female rats. Paternal effects: testes, epididymis, sperm duct, spermatogenesis (including genetic material, sperm morphology, motility, and count). Endocrine: effect on menstrual cycle.  
**Neurotoxicity:** No data available  
**Target Organs:** No data available  
**Aspiration Hazard:** Not anticipated to be an aspiration hazard.  
**Carcinogenicity:** No data available

Chemical Name	ACGIH	IARC	NTP	OSHA
No components listed				

**SECTION 12: ECOLOGICAL INFORMATION**

**Environmental Hazards Statement from FIFRA Regulated Pesticide Label:**

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment washwaters. Do not apply when weather conditions favor drift from treated areas.

**ECOTOXICITY DATA:** Data below is presented on the trinexapac-ethyl technical material.  
**Fish Toxicity:** Rainbow Trout 96 hr LC<sub>50</sub> = 68 mg/L  
 Bluegill 96 hr LC<sub>50</sub> >130.1 mg/L  
**Aquatic Invertebrate Toxicity:** *Daphnia magna* 48 hr EC<sub>50</sub> >142.5 mg/L  
**Aquatic Plant Toxicity:** No data available  
**Avian Toxicity:** Mallard duck oral LD<sub>50</sub> >2,000 mg/kg  
 Bobwhite Quail oral LD<sub>50</sub> >2,250 mg/kg  
**Honeybee Toxicity:** No data available

**ENVIRONMENTAL EFFECTS:**

**Persistence and Degradability:** No data available  
**Bioaccumulation:** No data available  
**Mobility:** No data available  
**Other 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** Not regulated in packages of less than 119 gallons. For containers of 119 gallons or greater;  
**(Ground):** NA1993, Combustible liquid, n.o.s. (tetrahydrofurfuryl alcohol), PGIII  
**IMDG**  
**(Sea):** Not regulated  
**IATA**  
**(Air):** Not regulated

**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**

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing.

**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:** Acute (Immediate); Chronic (Delayed); Fire  
**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 %
None listed		

**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
Tetrahydrofurfuryl alcohol	X	X	X
Castor oil, ethoxylated	X		X

**SECTION 16: OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards 2</b>	<b>Flammability 1</b>	<b>Instability 0</b>	<b>Special Hazards – None</b>
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