

**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**COMPANY ADDRESS:**

United Turf Alliance, LLC  
 8014 Cumming Highway, Suite 403-282  
 Canton, GA 30115

**EMERGENCY TELEPHONE NUMBERS:**

(800) 424-9300 (CHEMTREC, transportation and spills)

PRODUCT NAME : **ArmorTech MYCLO 20 EW**  
 CHEMICAL NAME : Myclobutanil  
 PRODUCT USE : Fungicide  
 PRODUCT CODE : EPA Reg. No 42750-166-86064

**SECTION 2 - HAZARDS IDENTIFICATION SUMMARY**

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

White liquid

**HEALTH HAZARDS:** WARNING. Causes moderate eye irritation. Harmful if swallowed or absorbed through the skin.

**PHYSICAL HAZARDS:** May release toxic fumes if burned.

**ENVIRONMENTAL HAZARDS:** Toxic to aquatic life.



**SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS**

COMPONENT	PERCENTAGE	CAS NUMBER
Myclobutanil	19.7	88671-89-0
Petroleum distillates	25.0	64742-94-5
Napthalene	3.5	91-20-3
Cyclohexanone	10.0	108-94-1

**SECTION 4 - FIRST AID MEASURES**

First Aid responders should use protective equipment in Section 8 if there is a potential for exposure to product.

**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:** Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give any liquid to the person. 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, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**NOTE TO PHYSICIAN:** Contains petroleum distillate – vomiting may cause aspiration pneumonia.

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**

National Fire Protection Rating (NFPA)

HEALTH	2
FLAMMABILITY	1
REACTIVITY	0
4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

**FLASHPOINT:** > 200° F (95° C)

**EXTINGUISHING MEDIA:** Water fog or fine spray, dry chemical, carbon dioxide or alcohol resistant foam.

**FIRE AND EXPLOSION HAZARD:** Vapors from product can be flammable. Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

**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. Minimize use of water to prevent environmental contamination

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

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

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

Clean up spills immediately. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Wear appropriate personal protection equipment. (See Section 8 Exposure Controls, Personal Protection.)

**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, scrub the area with detergent and water and neutralize with dilute alkaline solutions of soda ash, or lime.

This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. After removal, flush contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

Minimize use of water to prevent environmental contamination

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

KEEP OUT OF REACH OF CHILDREN!

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

**HANDLING:** Use only in a well-ventilated area. Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate.

**STORAGE:** Store in a cool, dry secure area at temperatures above freezing. Store in original container. Keep away from food, feed and drinking water. Store in a well ventilated, dry place away from heat and other sources of ignition.

**SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION****EXPOSURE LIMITS (8 hour TWA, ppm):**

COMPONENT	OSHA PEL	ACIGH TLV
Myclobutanil	Not listed	Not listed
Cyclohexanone	25	20
Napthalene	10	10

**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.

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**

<b>Appearance:</b>	White liquid
<b>Odor:</b>	Fuel oil like
<b>pH:</b>	5.5 – 6.6
<b>Melting Point:</b>	Not applicable
<b>Boiling Point:</b>	No data
<b>Flash Point:</b>	> 200° F (95° C)
<b>Evaporation Rate:</b>	No data
<b>Flammability:</b>	60° C
<b>Flammability Limits:</b>	Not applicable
<b>Vapor Pressure:</b>	0.213 mPa (24°C) (myclobutanil)
<b>Vapor Density:</b>	Not applicable
<b>Density:</b>	0.99 – 1.03 g/ml (8.22 – 8.6 lb/gl)*
<b>Solubility:</b>	Emulsifies
<b>Partition Coefficient:</b>	log Pow = 2.94 (pH 7-8, 25°C) (myclobutanil)
<b>Auto-Ignition Temperature:</b>	No data
<b>Decomposition Temperature:</b>	No data
<b>Viscosity:</b>	528.8 mPa/s (20°C); 491.3 mPa/s (40°C)

\*Listed density is an approximate value and does not necessarily represent that of a specific batch.

## SECTION 10 - STABILITY AND REACTIVITY

**PRODUCT REACTIVITY:** None known.

**CHEMICAL STABILITY:** Stable under normal storage conditions. However may decompose if heated.

**HAZARDOUS REACTION/POLYMERIZATION:** Product will not undergo polymerization.

**CONDITIONS TO AVOID:** Avoid ignition sources and temperatures below 35 F and above 120 F

**INCOMPATIBLE MATERIALS:** Acidic and oxidizing materials

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hydrogen chloride, Oxides of nitrogen

## SECTION 11 - TOXICOLOGICAL INFORMATION

Values from a similar but not identical formulation.

### **ACUTE TOXICITY:**

Oral LD <sub>50</sub> (rat)	- > 3,500 mg/Kg
Dermal LD <sub>50</sub> (rat)	- > 2,000 mg/Kg
Inhalation LC <sub>50</sub> (rat)	- Unknown
Eye Irritation (rabbit)	- Moderately irritating
Skin Irritation (rabbit)	- Slightly irritating
Sensitization (guinea pig)	- Non-sensitizer

### **CARCINOGEN STATUS:**

OSHA	- Not listed
NTP	- Not listed
IARC	- Not listed

**TERATOGENICITY:** Myclobutanil exhibited reproductive toxicity in long term rat and rabbit studies at moderate doses.

**MUTAGENICITY:** In-vitro and animal evidence indicates that myclobutanil is non-mutagenic

## SECTION 12 - ECOLOGICAL INFORMATION

**ENVIRONMENTAL SUMMARY:** 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. Do not apply when weather conditions favor drift or runoff from areas treated.

**FATE:** Myclobutanil is moderately persistent with a half-life > 365 days and moderately mobile in soil.

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

96 hour LC <sub>50</sub> , Rainbow trout –	4.2 mg/L
96 hour LC <sub>50</sub> , Bluegill –	2.4 mg/L

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

Oral LC <sub>50</sub> , Bobwhite quail –	> 5,000 ppm
Oral LC <sub>50</sub> , Mallard duck -	> 5,000 ppm

**BEE TOXICITY:** (technical) - > 200 ug/bee

**SECTION 13 - DISPOSAL CONSIDERATIONS**

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

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

**CONTAINER:** Non-refillable containers: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Refer to the container label to determine if it is refillable and complete cleaning and disposal instructions

**SECTION 14 - TRANSPORT INFORMATION**

**SHIPPING DESCRIPTION:** Not regulated by DOT  
(Non-bulk ground transport)

**TRANSPORT HAZARD CLASS:** N/A  
**UN NUMBER:** N/A  
**DOT PACKING GROUP:** PG III

**SECTION 15 - REGULATORY INFORMATION**

**CERCLA REPORTABLE QUANTITY:** 100 lb Naphthalene (approximately 325 gallons of product)  
5,000 lb Cyclohexanone (approximately 5,900 gallons of product)

**SARA TITLE III STATUS:**  
311/312 Hazard Categories – Immediate, Delayed  
313 Toxic Chemicals – Myclobutanil (88671-89-0)

**CALIFORNIA PROP 65:** Contains myclobutanil

**TSCA:** This product is exempted from TSCA because it is solely for FIFRA regulated use.

**SECTION 16 - OTHER INFORMATION**

HMIS HAZARD RATINGS	HEALTH	2
	FLAMMABILITY	1
	PHYSICAL HAZARD	0
	4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

**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.

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. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling.

It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

**REVISED DATE:** January, 2016

**REFERENCE:** Update for GHS compliance