

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

**COMPANY ADDRESS:** ALBAUGH, LLC  
Ankeny, IA 50021

**EMERGENCY TELEPHONE NUMBERS:**  
(800) 424-9300 (CHEMTREC, transportation and spills)

**PRODUCT NAME :** QUINSTAR TURF  
**CHEMICAL NAME :** Quinclorac  
**PRODUCT USE :** Herbicide  
**PRODUCT CODE :** EPA Reg. No 42750-90

**SECTION 2 - HAZARDS IDENTIFICATION SUMMARY**

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

Light tan granules

**HEALTH HAZARDS:** Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation.**PHYSICAL HAZARDS:** Can decompose at high temperatures forming toxic gases.**ENVIRONMENTAL HAZARDS:** Use on permeable soil-types where the water table is shallow may result in groundwater contamination.**SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS**

COMPONENT	PERCENTAGE	CAS NUMBER
Quinclorac	75.0	84087-01-4
Other ingredients	25.0	n/a

**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 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 15-20 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 15-20 minutes. Remove contact lenses, if present, after 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 by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.**NOTE TO PHYSICIAN:** No specific antidote, treat symptomatically.

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

**FLASHPOINT:** Not applicable

**EXTINGUISHING MEDIA:** Use foam, dry chemical, carbon dioxide, or water spray.

**FIRE AND EXPLOSION HAZARD:** Do not let dust accumulate. Organic solid dusts at sufficient concentrations can form explosive mixtures with air. 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. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water run off. Minimize use of water to prevent environmental contamination

**FIRE FIGHTING EQUIPMENT:** Full fire fighting turn-out gear (Bunker gear). Self-contained breathing apparatus with full facepiece.

**EQUIPMENT: HAZARDOUS COMBUSTION PRODUCTS:** Hydrogen chloride, Oxides of nitrogen and carbon

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**IN CASE OF SPILLS OR LEAKS:** 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, scrub the area with detergent and water and neutralize with dilute alkaline solutions of soda ash, or lime. Do not allow spill or clean up water to enter waterways.

Minimize use of water to prevent environmental contamination

**SECTION 7 - HANDLING AND STORAGE**

KEEP OUT OF REACH OF CHILDREN!

**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 cool, dry and well ventilated area. Do not store containers under wet conditions.

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

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

COMPONENT	OSHA PEL	ACIGH TLV
Quinclorac	Not listed	Not listed

**ENGINEERING CONTROLS:** Proper ventilation is required when handling or using this product to minimize exposure to airborne contaminants. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**PERSONAL PROTECTIVE EQUIPMENT:** (import current label text)

**USER SAFETY RECOMMENDATIONS:** (use label text)

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.

**PERSONAL PROTECTIVE EQUIPMENT:**

EYE PROTECTION - Safety glasses or goggles

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

GLOVES – Chemical resistant gloves made of waterproof material.

Wash thoroughly with soap and water after handling. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not re-use them. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, 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/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the 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>	Light tan granules
<b>Odor:</b>	faint odor
<b>pH:</b>	3.69 – 4.69
<b>Melting Point:</b>	No data
<b>Boiling Point:</b>	Not applicable
<b>Flash Point:</b>	Not applicable
<b>Evaporation Rate:</b>	Not applicable
<b>Flammability:</b>	Not flammable
<b>Flammability Limits:</b>	Not applicable
<b>Vapor Pressure:</b>	<0.01 mPa (20°C) (quinclorac)
<b>Vapor Density:</b>	Not applicable
<b>Density:</b>	0.62 – 0.66 g/ml (5.17 – 5.51 lb/gl)*
<b>Solubility:</b>	No data
<b>Partition Coefficient:</b>	log Pow = -1.15 (pH 7) (quinclorac)
<b>Auto-ignition Temperature:</b>	No data
<b>Decomposition Temperature:</b>	No data
<b>Viscosity:</b>	Not applicable

\*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, however may decompose if heated.

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

**CONDITIONS TO AVOID:** Avoid exposure to high moisture conditions for prolonged periods.

**INCOMPATIBLE MATERIALS:**

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

**SECTION 11 - TOXICOLOGICAL INFORMATION****ACUTE TOXICITY:**

Oral LD <sub>50</sub> (rat)	No data
Dermal LD <sub>50</sub> (rat)	No data
Inhalation LC <sub>50</sub> (rat)	No data
Eye Irritation (rabbit)	No data
Skin Irritation (rabbit)	No data
Sensitization (guinea pig)	No data

**CARCINOGEN STATUS:**

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

**TERATOGENICITY:** Not known to exhibit reproductive or teratogenic (birth defect) effects.

**MUTAGENICITY:** No evidence of mutagenic effects during in vivo or in vitro studies.

**SECTION 12 - ECOLOGICAL INFORMATION**

**ENVIRONMENTAL SUMMARY:** This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Keep out of lakes, ponds and streams. Do not apply directly to water, areas where surface water is present, or to intertidal areas below the mean high water mark, except as specified on this label for use in rice. Do not contaminate water by cleaning of equipment or disposal of rinsate.

**FATE:** Quinclorac and its metabolites are persistent (with half-life > 1 year under certain conditions) and mobile with potential contaminate ground water.

**FISH TOXICITY: (Technical)**

96 hour LC <sub>50</sub> , Rainbow trout -	83.5 mg/L
96 hour LC <sub>50</sub> , Bluegill -	31.6 mg/L

**AVIAN TOXICITY: (Technical)**

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

**BEE TOXICITY: (technical)** > 357 ug/bee

**SECTION 13 - DISPOSAL CONSIDERATIONS**

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

**CONTAINER DISPOSAL:** 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 Containers: 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 product label to determine if container is refillable and for complete cleaning and disposal instructions.

**SECTION 14 - TRANSPORT INFORMATION**

**SHIPPING DESCRIPTION:** Not regulated by DOT  
(Ground transport)

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

**SECTION 15 - REGULATORY INFORMATION**

**CERCLA REPORTABLE QUANTITY:** Not listed

**SARA TITLE III STATUS:**  
311/312 Hazard Categories - Immediate & Chronic Health Hazard  
313 Toxic Chemicals - None known

**CALIFORNIA PROP 65:** Not listed

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

**SECTION 16 - OTHER INFORMATION**

HMIS HAZARD RATINGS	HEALTH	1
	FLAMMABILITY	1
	PHYSICAL HAZARD	1
	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 Albaugh's knowledge. Albaugh 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:** December, 2014

**REFERENCE:** Update for GHS compliance