

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS:

ALBAUGH, INC.
ANKENY, IA 50021

EMERGENCY TELEPHONE NUMBERS:

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

PRODUCT NAME : **QUINSTAR**
CHEMICAL NAME : 3,7-dichloro-8-quinolinecarboxylic acid
CHEMICAL FAMILY : Quinolinecarboxylic acid herbicide
PRODUCT CODE : EPA Reg. No. 42750-88

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
Quinclorac	75.0	84087-01-4	Not established	Not established
Inerts, including kaolin clay that may contain more than 0.1% crystalline silica	25.0	-	Not established	2 mg/m3

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

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

HEALTH HAZARDS: Moderately irritating to the eyes. May cause skin sensitization, an allergic reaction, which becomes evident on re-exposure to this material.

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 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 15-20 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.

Have the 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): N/A, will not flash

FLAMMABLE LIMITS (LFL-UFL): N/A

FIRE AND EXPLOSION HAZARD: 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.

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

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.

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

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

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing precautions in Section 8 of this document.

SMALL SPILL: Vacuum or sweep up material and place in a container for reuse or disposal.

LARGE SPILL: Vacuum or sweep up material and place in a container for reuse or disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Minimize dust generation and accumulation.

STORAGE: 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): (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. 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

RESPIRATOR - When handling in enclosed areas where exposure limits may be exceeded, a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)

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.

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.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Light tan granules

ODOR: No appreciable odor.

BULK DENSITY: 0.575 g/ml

pH: 4.2

VAPOR PRESSURE: $< 1 \times 10^{-7}$ mmHg @ 20C

WATER SOLUBILITY (technical): 65 ppm

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable, however may decompose if heated.

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

INCOMPATIBILITY WITH OTHER MATERIALS: None known.

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

HAZARDOUS POLYMERIZATION: Product will not undergo polymerization

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral LD ₅₀ (rat)	-	> 2,000 mg/Kg
Dermal LD ₅₀ (rat)	-	> 2,000 mg/Kg
Inhalation LC ₅₀ (rat)	-	> 6.0 mg/L
Eye Irritation (rabbit)	-	Moderately irritation
Skin Irritation (rabbit)	-	Slightly irritating
Sensitization (guinea pig)	-	Sensitization possible after repeated exposure

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Existing skin sensitivities.

CARCINOGEN STATUS:

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

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

ADDITIONAL DATA: Not known to exhibit reproductive or teratogenic (birth defect) effects.

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.

FISH TOXICITY: (Technical)

96 hour LC₅₀, Rainbow trout - > 100 mg/L

96 hour LC₅₀, Bluegill - > 100 mg/L

AVIAN TOXICITY: (Technical)

Oral LD₅₀, Bobwhite quail - > 2000 mg/Kg

Oral LD₅₀, Mallard duck - unknown

BEE TOXICITY: Non-toxic

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE: Pesticide wastes are hazardous. Dispose of in accordance with applicable Federal, state and local laws and regulations.

CONTAINER: Completely empty contents into application equipment. Then dispose of packaging in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burning, stay out of smoke. Do not contaminate water, food, or feed by storage or disposal.

SECTION 14 - TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION: Not regulated by DOT

DOT HAZARD CLASS: N/A

UN NUMBER: N/A

DOT PACKING GROUP: N/A

DOT PRIMARY/SECONDARY LABEL: N/A

DOT PRIMARY/SECONDARY PLACARD: N/A

DOT EMERGENCY RESPONSE GUIDE #: N/A

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: Not listed

SARA TITLE III STATUS:

311/312 Hazard Categories -
313 Toxic Chemicals -

Immediate & Chronic Health Hazard
None known

CALIFORNIA PROP 65: Not listed

SECTION 16 - OTHER INFORMATION

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

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REVISED DATE: January, 2008

REFERENCE: Revised Section 16 HMIS Table