

MATERIAL SAFETY DATA SHEET

Se-CURE Herbicide

MSDS DATE: 1/05/10

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Se-CURE Herbicide
 SYNONYMS: Sharda Quizalofop EC
 EPA REGISTRATION NO.: 83529-15

MANUFACTURER: Sharda USA LLC
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CHEMICAL NAME: Quizalofop-P-Ethyl
 Ethyl(R)-2-[4-(6-chloroquinoxalin-2-yloxy)-phenoxy]propionate
 CHEMICAL FAMILY: Aryloxyphenoxypropionate

CHEMICAL FORMULA: C₁₉H₁₇ClN₂O₄
 PRODUCT USE: Herbicide
 PREPARED BY: Sharda USA LLC

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

ACTIVE INGREDIENT: Quizalofop- P- ethyl

<u>CAS NO.</u>	<u>% WT</u>	<u>% VOL</u>	<u>SARA 313 REPORTABLE</u>
100646-51-3	10.3	10.3	No
	<u>ppm</u>	<u>mg/m3</u>	
OSHA PEL-TWA:	N/A	N/A	
OSHA PEL STEL :	N/A	N/A	
OSHA PEL CEILING:	N/A	N/A	
ACGIH TLV-TWA:	N/A	N/A	
ACGIH TLV STEL:	N/A	N/A	
ACGIH TLV CEILING:	N/A	N/A	

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: DANGER. Causes irreversible eye damage. Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or mist.

ROUTES OF ENTRY: Ingestion, inhalation, eye, and dermal contact.

POTENTIAL HEALTH EFFECTS

EYES: Moderate eye irritation.

SKIN: Harmful if absorbed through skin.

INHALATION: Avoid breathing vapor or mist.

CARCINOGENICITY – None known.

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SECTION 4: FIRST AID MEASURES

FIRST AID	
If swallowed:	<ul style="list-style-type: none"> 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:	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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.
If in eyes:	<ul style="list-style-type: none"> 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 treatments advice.
HOT LINE NUMBER	
Have a product container or label with you when calling a poison control center or doctor, or going for treatment. For 24-hour medical emergency assistance (human or animal) call 1-800-222-1222. For chemical emergency assistance (spill, leak, fire, or accident) call ChemTrec at 1-800-424-9300.	

SECTION 5: FIRE-FIGHTING MEASURES

Product is combustible.

FLAMMABLE LIMITS IN AIR, UPPER: Not applicable
(% BY VOLUME) LOWER: Not applicable

FLASH POINT: 210 deg F (98.9 deg C)

AUTOIGNITION TEMPERATURE: Not applicable

FLAMMABILITY: Vapor forms explosive mixture with air. Heating can release vapors which can be ignited.

EXTINGUISHING MEDIA: Water, foam, dry chemical, carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate personnel to safe area. Keep personnel removed and upwind of fire. Wear full protective clothing and self-contained breathing apparatus. If water spray is used to fight fire, dike and collect runoff. Prevent the use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition or combustion may produce irritating and possibly toxic gases including carbon oxides, nitrogen oxides (NOx), hydrogen chloride gas.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. If spill is on ground near trees or other valuable plants, remove top 2 inches of soil after initial clean up.

SECTION 6 NOTES:

Small Spill: Absorb small spills with sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal. Scrub area with hard water detergent. Pick up wash liquid with additional absorbent and place into 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. Pick up wash liquid with additional absorbent and place in a disposable container. After removal, flush contaminated area thoroughly with water. This material should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

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SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Combustible. Keep away from heat, sparks, and open flames. Store the material in a cool, dry, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco product in the storage area. Prevent eating, drinking tobacco use and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and after handling.

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use only with adequate ventilation. Keep container tightly closed.

EYE PROTECTION: Protective eyewear.

INGESTION: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

SKIN PROTECTION: Long-sleeved shirt, long pants, shoes plus socks. Chemical resistant footwear and overalls. Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC), or Viton. For overhead exposure, wear chemical resistant headgear.

INHALATION: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any N, R, P, or HE filter.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: 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.

WORK HYGIENIC PRACTICES: Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

EXPOSURE GUIDELINES: Refer to Section 2.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Amber

ODOR: Pungent

PHYSICAL STATE: Liquid

pH AS SUPPLIED: 5.38

SPECIFIC GRAVITY (H₂O = 1): 1.007 g/cm³ (8.4 pounds/gal)

SOLUBILITY IN WATER: Emulsifiable concentrate

SECTION 10: STABILITY AND REACTIVITY

STABLE
X

UNSTABLE

STABILITY: Stable at normal temperature and pressure.

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CONDITIONS TO AVOID (STABILITY): None known.

INCOMPATIBILITY (MATERIAL TO AVOID): None known.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Thermal decomposition can lead to the release of toxic gases.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Oral LD ₅₀ (rat)	4,100 mg/kg (female rat); 5,900 mg/kg (male rat)
Dermal LD ₅₀ (rabbit)	>2,000 mg/Kg
Inhalation LC ₅₀ (rat)	4 hr exposure 0.36 mg/L male rats; 0.62 mg/L female rats)
Eye Contact:	Moderate eye irritant (Rabbit)
Skin Contact:	Not an irritant (Rabbit)
Skin Sensitization:	Not a Sensitizer (Guinea Pig)
Reproductive/Developmental Effects:	May cause reproductive effects in animals.
Chronic/subchronic toxicity studies	In animals, repeated oral doses caused increased liver weights, and change in clinical chemical parameters associated with the liver. In mice there were morphological changes to the liver. In addition, at higher doses there were weight changes in the testes, body, brain, heart, lung, liver and kidneys in a different study; there were also morphological changes in the testes at these doses.
Carcinogenicity	No data available.
Other toxicity information	None
Toxicity of other components	No data available.
Target organs	
Active ingredient (quizalofop-P-ethyl)	Liver
Inert ingredient	Not applicable

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: This pesticide is toxic to fish and 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. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after application. Poorly drained soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which the product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion practices will reduce this product's contribution to surface water contamination.

Summary of effects:	This material is toxic to fish and invertebrates.
Eco Acute Toxicity:	Not available
Eco Chronic Toxicity:	Not available
Environmental fate:	Not available

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Product disposal – Pesticide wastes may be acutely hazardous. Improper disposal is a violation of federal law. Pesticide, mixtures, or equipment rinse water that cannot be chemically reprocessed must be disposed of according to applicable federal, state or local regulations. Contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional office for guidance.

Container disposal – Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

RCRA HAZARD CLASS: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

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SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION – Ground transport-NAFTA

PROPER SHIPPING NAME: Environmentally Hazardous Substance, Liquid N.O.S. (10% quizalofop-P-ethyl)
 HAZARD CLASS: 9
 ID NUMBER: UN 3082
 PACKING GROUP: PG III
 SPECIAL INFORMATION: Marine pollutant

WATER TRANSPORTATION – N/A

PROPER SHIPPING NAME:
 ID NUMBER:
 PACKING GROUP:

AIR TRANSPORTATION – International

PROPER SHIPPING NAME: Aviation Regulated Liquid N.O.S. (quizalofop-P-ethyl)
 HAZARD CLASS: 9
 ID NUMBER: UN 3334
 PACKING GROUP: None
 LABEL STATEMENTS:

This product is not regulated for domestic non-bulk shipments.

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): The ingredients of this product are listed on the TSCA inventory or are exempt.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):
 SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

302: Not applicable.

311/312 HAZARD CATEGORIES: Acute Health Hazard, Chronic Health Hazard
 313 REPORTABLE INGREDIENTS: None.

CA PROPOSITION 65: None

SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

HAZARD RATINGS	NFPA	HMIS		
HEALTH:	1	2	0	MINIMAL
FLAMMABILITY:	1	1	1	SLIGHT
REACTIVITY:	0	0	2	MODERATE
			3	HIGH
			4	SEVERE

PREPARATION INFORMATION: MSDS DATE 1-5-10
 REVISION DATE

DISCLAIMER: This product is a registered agricultural chemical and must therefore be used in accordance with the container label directions. The information contained herein is given in good faith and is believed to be correct, but no warrant, express or implied is made. Consult Sharda USA LLC for further information.