1. IDENTIFICATION

Product name: Quinclorac 1.5L
Product type: Herbicide
EPA Registration No.: 53883-336

Chemical name of active ingredient(s): Quinclorac: 3,7-dichloro-8-quinolinecarboxylic acid

Manufacturer/Registrant: Control Solutions, Inc.

5903 Genoa-Red Bluff Pasadena, TX 77507

For fire, spill, and/or leak emergencies,

contact Chemtrec:

Phone: 1-800-424-9300

For medical emergencies and health and safety inquiries, contact Safety

Phone: 1-866-897-8050

Call:

Poison Control Center Phone: 1-800-222-1222

2. HAZARDS IDENTIFICATIONS

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Acute Toxicity:

| | Acute oral | Acute dermal | Acute inhalation | Eye irritation | Skin irritation | Skin Sensitization |
|----------|------------|-----------------|------------------|-------------------|--------------------|-----------------------|
| Category | NC | NC | 4 | 2B | 2 | NC |

NC: Not classified

SIGNAL WORD: WARNING HAZARD STATEMENTS:

- Harmful if inhaled

Cause eye irritation

Cause skin irritation

PICTOGRAM:



PRECAUTIONARY STATEMENTS:

- Avoid breathing mist, vapors and spray. Use only outdoors or in a well-ventilated area. If inhaled: remove a person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
- Wash hand thoroughly after handling. Wear eye protection or face protection. 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.
- Wash hand thoroughly after handling. Wear protective gloves. If on skin: wash with plenty of water. If skin/irritation occurs: Get medical advice. Take off contaminated clothing and wash it before reuse.

Contact Safety Call® International for emergency medical treatment at (866) 897-8050.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| COMMON NAME | CAS NO. | % | OSHA PEL | ACGIH TLV | OTHER | NTP/IARC/OSHA (Carcinogen) |
|----------------------------------|------------|-------|-------------|--------------|-------|-------------------------------|
| Dimethylamine salt of Quinclorac | 84087-01-4 | 18.92 | NE | NE | NE | NA NA |

NE=Not established; NA=Not applicable.

4. FIRST AID MEASURES

| FIRST AID | | | | | | |
|---|---|--|--|--|--|--|
| 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 the poison control center or doctor. | | | | | |
| | Do not give anything by mouth to an unconscious person. | | | | | |
| IF ON SKIN OR | Take off contaminated clothing. | | | | | |
| CLOTHING | Rinse skin immediately with plenty of water for 15 to 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 15-20 minutes. | | | | | |
| | • Remove contact lenses, if present, after the first 5 minutes, then continuing | | | | | |
| | rinsing eye. | | | | | |
| | Call a poison control center or doctor for treatment advice. | | | | | |
| Have the product container or label with you when calling a poison control center or doctor, or going | | | | | | |
| for treatment. | | | | | | |
| You may also contact SafetyCall® at (866) 897-8050 for emergency medical treatment information. | | | | | | |

5. FIRE FIGHTING MEASURES

FLASH POINT: Not available

FLAMMABLE LIMITS: Not available.

EXTINGUISHING MEDIA: Water spray, CO₂, foam, dry chemical.

UNUSUAL FIRE, EXPLOSION HAZARDS: Hydrogen chloride, oxides of nitrogen and carbon. Traces of the substances/groups of substances mentioned can be released in case of fire.

FIRE-FIGHTING PROCEDURES: Wear full protective clothing and self-contained breathing apparatus and turn-out gear. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area and equipment until decontaminated. Water runoff can cause environmental damage.

HAZARDOUS DECOMPOSITION PRODUCTS: Product can decompose if heated to form toxic gases.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment. Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

CLEANUP: Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Do not contaminate water, food, or feed by storage or disposal or cleaning of equipment. Carefully open containers and after partial use close container

tightly. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

PRECAUTIONS TO BE TAKEN IN STORAGE: Do not store box under dampness or high humidity. Store in cool, dry area away from children and domestic animals.

STORAGE TEMPERATURE (MIN/MAX): Normal ambient temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

HAND PROTECTION: Chemical-resistant gloves such as butyl rubber > 14 mils, natural rubber > 14 mils, neoprene rubber > 14 mils, or nitrile rubber > 14 mils.

SKIN PROTECTION: Long-sleeve shirt, long pants, shoes plus socks.

EYE PROTECTION: Wear goggles or face shield.

RESPIRATOR REQUIREMENTS: For most conditions, no respiratory protection required. However, if handling without sufficient ventilation, use NIOSH approved air-purifying respirator with any N, P or R95 class filter and an organic vapor cartridge.

ADDITIONAL PROTECTIVE MEASURES:

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. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them.

USER SAFETY RECOMMENDATIONS:

Users Should:

- 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 the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

EXPOSURE GUIDELINES: Refer to Section 3.

ENGINEERING CONTROLS: Refer to product label. Provide local exhaust ventilation. Minimize airborne concentrations.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Off-white liquid **ODOR:** No appreciable odor

pH: 4.0

FLASH POINT: Will not flash DENSITY: 1.05 g/ml (8.8 lbs/gal)

VAPOR PRESSURE (technical): < 1 x 10⁻⁷ mmHg@20°C

WATER SOLUBILITY (technical): 65 ppm

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

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

HAZARDOUS DECOMPOSITION PRODUCTS: Product can decompose if heated to form toxic gases.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES: (Data based on a similar formulation)

Acute Oral LD₅₀ (Rat): > 3,500 mg/kg Acute Dermal LD₅₀ (Rabbit): > 2,000 mg/kg Acute Inhalation LC₅₀ (Rat): > 2.0 mg/L/4 hr

Eye Irritation: Mildly irritating Skin Irritation: Slightly irritating

Dermal Sensitization: Not a skin sensitizer

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

CHRONIC/SUBCHRONIC TOXICITY:

Quinclorac: Prolonged overexposure may cause effects to liver and kidneys.

REPRODUCTIVE TOXICITY:

Quinclorac: The results of animal studies gave no indication of a fertility impairing effect.

DEVELOPMENTAL EFFECTS:

Quinclorac: No indications of a developmental toxic/teratogenic effect were seen in animal studies.

MUTAGENICITY:

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

CARCINOGENICITY:

Quinclorac: In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical where soils are permeably, 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, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment of disposal of rinsate.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDSE) permit and the permitting authority has been notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

ECOTOXICITY (Quinclorac Technical):

Rainbow trout LC_{50} (96-h): > 100 mg/L

Bluegill LC_{50} (96-h): > 100 mg/L

Daphnia magna EC_{50} (48-h): 29.8 mg/L Bobwhite quail LD_{50} (oral): 2,000 mg/kg Green algae EC_{50} (96-h): >100 mg/l

BEE TOXICITY: Non-toxic

ENVIRONMENTAL FATE: Not readily biodegradable.

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.

CONTAINER DISPOSAL: Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

Not Regulated.

INTERNATIONAL TRANSPORTATION:

Not Regulated.

15. REGULATORY INFORMATION

FIFRA INFORMATION:

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 for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION Harmful if swallowed.

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.

Section 311/312: Acute health hazard (immediate)

Chronic health hazard (delayed)

Section 313: Not applicable

CA PROPOSITION 65: Not applicable

CERCLA RQ: Not applicable

RCRA CLASSIFICATION: 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.

TSCA STATUS: The ingredients of this product are listed on the TSCA inventory or are exempt.

16. OTHER INFORMATION

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

MSDS DATE: 4-16-2012

The information and recommendations contained herein are based upon data believed to be correct. However, no warranty of any kind, expressed or implied, is made with respect to the information contained herein.