

Material Safety Data Sheet

Effective Date: 18-JUL-2007  
Product: CROSSBOW

I. IDENTIFICATION

Chemical Name: 2,4-D + Triclopyr  
Chemical Family: Phenoxy Herbicides  
Formula: Not applicable, formulated mixture.  
Synonyms: None  
CAS Number: Not applicable, formulated mixture.  
EPA Number: 62719-260-5905

II. PHYSICAL DATA

Boiling Point: >175 Deg. C.  
Freezing Point: Not determined  
Spec Gravity: 1.013 gms/cc  
Vapor Pressure: 0.1 mm/Hg  
Vapor Density: 4.7  
Solubility: Emulsifies  
Volatiles: Not determined  
Evaporation: Not determined  
Melting Point: Not determined  
Appearance: Reddish brown liquid with sweet odor.

III. INGREDIENTS

Material	CAS Number	Percent	TLV	Hazard
2,4-Dichlorophenoxyacetic acid, butoxyethyl ester	1929-73-3	34.40	10 mg/m3	Skin & eye irritant
Triclopyr, butoxyethyl ester	64700-56-7	16.50	N/E	Skin & eye irritant
Inert ingredients, including Kerosene (CAS No. 8008-20-6)		49.10	N/E	

IV. FIRE AND EXPLOSION HAZARD

Flash Point: 148 Deg. F.  
Autoignition Temp: Not determined  
Flammable Limit: Not determined  
Extinguishing Media: Use water fog, foam, carbon dioxide and dry chemical extinguishing media.  
Special Fire Fight Proc: Use positive pressure self-contained breathing apparatus and full protective clothing.  
Fire and Expl Hazard: Combustible - produces noxious fumes under fire conditions.

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V. HEALTH HAZARD  
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Carcinogen Information: Not listed by OSHA.

ACUTE EFFECTS OF OVER EXPOSURE  
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- Swallowing: Low toxicity if swallowed. The Acute Oral LD50 (rats) is 1000-2589 mg/kg (males). Swallowing large amounts may cause injury. Aspiration into lungs may occur during swallowing or vomiting, causing lung damage or even death due to chemical pneumonia.
- Skin Absorption: Prolonged skin contact is unlikely to result in absorption of harmful amounts. The Acute Dermal LD50 for skin absorption is >5000 mg/kg.
- Inhalation: Excessive exposure may cause irritation to the upper respiratory tract. May cause central nervous system effects. The Acute Inhalation LC50 for rats is approximately 5 mg/L (males).
- Skin contact: Prolonged or repeated contact may cause moderate skin irritation. Brief contact may cause slight skin irritation with local redness. May cause drying or flaking of the skin.
- Eye Contact: May cause moderate eye irritation. Corneal injury is unlikely.
- Chronic Effects: Various animal cancer tests have shown no reliable positive association between 2,4-D exposure and cancer.
- Other Hazard: Effects have been reported on the following organs: blood, gastrointestinal tract, kidney, liver, muscle and respiratory tract.

EMERGENCY AND FIRST AID PROCEDURES  
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- Swallowing: Do not induce vomiting as this may cause aspiration of the product. Call a physician and/or transport to an emergency medical facility immediately.
- Skin: Wash affected area with plenty of soap and water. Launder clothing before reuse.
- Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, administer oxygen. Call a physician or transport to a medical facility.
- Eyes: Flush eyes thoroughly with water for at least

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15 minutes, holding eyelids open. If irritation persists, seek medical treatment.

Notes to Physician: The decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, endotracheal and/or esophageal control is recommended. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote is available. Treatment should be directed toward control of the symptoms and the clinical condition of the patient.

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VI. REACTIVITY

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Stability: Stable  
Conditions to Avoid: Avoid temperatures above or near the flash point (flash point 148 Degrees F.).  
Polymerization: Will Not Occur  
Conditions to Avoid: None currently known.  
Incompatibility material: Avoid acid, base and oxidizing materials.  
Hazardous Combustion: Produces noxious fumes under fire conditions.

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VII. SPILL OR LEAK PROCEDURES

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Spill or Leak Proc: Use non-combustible absorbent, such as sand or Zorball. Scoop or shovel into suitable chemical waste containers for proper disposal. Do not use water for cleanup. Notification to the National Response Center (1-800-424-8802) may be required if spilled into the environment.  
Waste Disposal Method: This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

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VIII. SPECIAL PROTECTION INFORMATION

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Respiration: Use NIOSH-approved air-purifying respirator for organic vapors if the TLV is exceeded.  
Ventilation: General and/or local exhaust should be sufficient.  
Gloves: Chemical-resistant gloves.  
Eyes: Chemical workers' goggles.  
Other: Emergency shower, eyewash station, impervious apron and footwear.

Material Safety Data Sheet

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IX. SPECIAL PRECAUTIONS

Special precaution: Keep out of reach of children. Do not store with food, feed or other material to be used or consumed by humans or animals. Keep away from open flames and avoid temperatures above 140 Degrees F. Do not store with acids, bases or oxidizing materials.

Other precaution: Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Always follow label directions for this or any other pesticide product.

X. SHIPPING INFORMATION

Shipping name: Not regulated by DOT in package quantities, see Transportation Note.

Hazard Class: None

Identification No: None

Labels Required: None required

Placarding: None

Freight Class: Compound, Weed Killing, Liquid (2,4-D, Triclopyr Herbicide), N.O.I. (NMFC Item 50320, Class 60)

Chemical Name

Equivalent R.Q.

2,4-D Esters

100 lbs/45.4 kg

TRANSPORTATION NOTE:

Containers greater than 34.48 gallons, ship as:

RQ, Environmentally Hazardous Substance, Liquid, n.o.s. (2,4-D Acid), 9, UN3082, PG III "ERG # 171"

Bulk shipments (119 gallons or greater), ship as:

RQ, Combustible liquid, n.o.s. (2,4-D Acid, Kerosene), Combustible Liquid, NA1993, PG III, Marine Pollutant "ERG # 128"

XI. GENERAL PRODUCT INFORMATION

Helena Chemical Company  
PH: 901-761-0050  
CHEMTREC: 800-424-9300

18-JUL-2007 10:24:13  
Page 5 Of 5

Material Safety Data Sheet

Effective Date: 18-JUL-2007  
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National Fire Protection Association Rating:  
(Rating level: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum

Health: 1                      Fire: 2                      Reactivity: 0

S.A.R.A. Title III Hazard Classification: (Yes/No)

Immediate (Acute) Health: Y                      Delayed (Chronic) Health: Y  
Sudden Release of pressure: N                      Fire: Y  
Reactive: N

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Mail inquiries to: 225 Schilling Blvd., Suite 300 Collierville, TN 38017  
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responsibility. It is offered solely for your consideration, investigation  
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