

MATERIAL SAFETY DATA SHEET

LOW VOL 4 ESTER WEED KILLER

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

Loveland Products, Inc.
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300
Medical Emergencies: 1-800-301-7976

PRODUCT NAME: LOW VOL 4 ESTER WEED KILLER
CHEMICAL NAME: 2,4-D: Isooctyl (2-ethylhexyl) ester of 2,4-Dichlorophenoxyacetic acid
CHEMICAL FAMILY: Phenoxy Herbicide
EPA REG. NO.: 34704-124
MSDS Number: 000124-03-LPI **MSDS Revisions:** New

Date Of Issue: 11/03/03

Supersedes: New

2. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Isooctyl ester of 2,4-D	65.50	1928-43-4	not established
Inert Ingredients	34.50	Mixture	

3. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION – Harmful if swallowed, absorbed through skin, or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

This product is amber liquid with alcohol odor. Primary routes of entry are Inhalation, eye contact and skin contact.

4. FIRST AID MEASURES

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to do so. 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 clothing: Take off contaminated clothing. Rinse skin 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 the 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: Ingestion has caused vomiting, abdominal cramps, diarrhea, anorexia, myotonia, and increased salivation. Ataxia, mental confusion, hypotension, and tachycardia, have also occurred. There is no specific antidote; treat symptomatically.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976. Have the product label or container with you when calling a poison control center or doctor, or going for treatment.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): 149°F/65.0°C (PMCC)
FLAMMABLE LIMITS (LEL & UEL): None established
EXTINGUISHING MEDIA: Considered combustible, use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.

HAZARDOUS COMBUSTION PRODUCTS: Ammonia, oxides of nitrogen, chlorine-containing compounds and other unknown hazardous materials may be formed in a fire situation.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus with full protective clothing. Fight fire from upwind and keep all non-essential personnel out of area of intense smoke.

UNUSUAL FIRE AND EXPLOSION HAZARDS: If water is used to fight fire and/or cool containers, contain runoff, using dikes to prevent contamination of water supplies.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Contain spill and absorb with suitable absorbent, sweep up material and transfer to containers for possible land application according to label use or for proper disposal. Wash spill area with water containing strong detergent, absorb and sweep up as above. Check local, state and federal regulations for proper disposal.

CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: 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.

STORAGE: Store in a safe manner away from children, feed and food products, fertilizer and seed. Store in original container, tightly closed. Do not store below 0°F/-17.8°C. If frozen, warm to 45°F/7.2°C and redissolve before using by rolling or shaking the container. Do not contaminate water supplies by handling and storage of product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:	When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets with requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.	
RESPIRATORY PROTECTION:	Not normally required, if vapors or mists exceed acceptable levels, wear a NIOSH approved respirator with an organic vapor cartridge and dust/mist prefilter.	
EYE PROTECTION:	Chemical goggles or shielded safety glasses.	
SKIN PROTECTION:	Wear protective clothing: long-sleeved shirts and pants, hat, rubber boots with socks. Wear rubber or chemical-resistant gloves.	
2,4-D LV	OSHA PEL 8 hr TWA not established	ACGIH TLV-TWA not established

EPA HANDLER REQUIREMENTS
Worker Protection Standard – 40 CFR 170

Personal Protective Equipment: Applicators and other handlers must wear: long sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene or Viton®, shoes plus socks, and protective eyewear. 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. After each day of use, clothing or PPE must no be reused until it has been cleaned. **For containers over 1 gallon and less than 5 gallons in capacity:** Mixers and loaders who do not use a mechanical system (probe and pump) to transfer the product must wear coveralls or a chemical-resistant apron in addition to other PPE.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Amber liquid with alcohol-like odor.	BULK DENSITY: 8.6-8.7 lbs/gal.	SOLUBILITY: Emulsifies
SPECIFIC GRAVITY (Water= 1): 1.03-1.04 g/ml	BOILING POINT: Not established	pH: Not established
VAPOR PRESSURE: Not established	EVAPORATION RATE: Not established	
PERCENT VOLATILE (by volume): Not established		

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

STABILITY: Stable	CONDITIONS TO AVOID: Extreme heat or extreme cold.
INCOMPATIBILITY: Strong bases and oxidizers.	
HAZARDOUS DECOMPOSITION PRODUCTS: Ammonia, oxides of nitrogen, chlorine-containing compounds and other unknown hazardous materials may be formed in a fire situation. Incomplete combustion may lead to formation of oxides of carbon.	
HAZARDOUS POLYMERIZATION: Will not occur.	

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): 1670 mg/kg	Acute Dermal LD₅₀ (rabbit): > 2000 mg/kg
Eye Irritation (rabbit): Moderate irritation	Skin Irritation (rabbit): Non-irritating
Inhalation LC₅₀ (rat): >5.28 mg/L.	Ingestion: May cause stomach distress, nausea or vomiting.
Carcinogenic Potential: None listed in OSHA, NTP or ACGIH; IARC Group 2B (limited evidence for carcinogenicity in humans).	
Target Organs: 2,4-D: Skin, CNS, liver, kidneys	

12. ECOLOGICAL INFORMATION

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and non-target plants. For terrestrial uses, 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 disposing of equipment wash waters.

Summary of Effects

2,4-D ethylhexyl ester is slightly toxic to aquatic organisms.

Eco-Acute Toxicity

LC₅₀/EC₅₀

Most sensitive species 10-100 mg/L

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state and federal regulations. Do not reuse product containers
Plastic Jugs: Triple rinse (or equivalent), then offer for recycling at an ACRC site or by reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT Shipping Description: For containers greater than 26 gallons: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, UN3082, III (2,4-D) MARINE POLLUTANT, ERG GUIDE 171

DOT LABEL: CLASS 9 FOR LESS THAN 119 GALLONS; FOR GREATER THAN 119 GALLONS, CLASS 9 PLACARD WITH UN/ID NUMBER 3082

U.S. Surface Freight Classification: COMPOUND, TREE OR WEED KILLING, NOI (NMFC 50320, SUB 2:CLASS: 60)

Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:	NFPA		HMIS
	2 Health	0 Least	2 Health
	2 Flammability	1 Slight	2 Flammability
	0 Instability	2 Moderate	0 Reactivity
		3 High	H PPE
		4 Severe	

SARA Hazard Notification/Reporting

SARA Title III Hazard Category:	Immediate	<u>Y</u>	Fire	<u>N</u>	Sudden Release of Pressure	<u>N</u>
	Delayed	<u>Y</u>	Reactive	<u>N</u>		

Reportable Quantity (RQ) under U.S. CERCLA: 2,4-D Acid (CAS: 94-75-7) 100 pounds.

SARA, Title III, Section 313: 2,4-D 2-ethylhexyl ester (CAS: 1928-43-4) 65.5%; 2,4-D Acid (CAS: 94-75-7) 43.4% acid equivalent

RCRA Waste Code: Not listed

CA Proposition 65: Not listed.

16. OTHER

MSDS STATUS: New

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

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