

# MATERIAL SAFETY DATA SHEET

# AMINE 4 2,4-D 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:** AMINE 4 2,4-D WEED KILLER  
**CHEMICAL NAME:** 2,4-D; Dimethylamine salt of 2,4-Dichlorophenoxyacetic acid  
**CHEMICAL FAMILY:** Phenoxy Herbicide  
**EPA REG. NO.:** 34704-120  
**MSDS Number:** 000120-03-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>
Dimethylamine salt of 2,4-D	46.50	2008-39-1	10 mg/m <sup>3</sup>
2,4-D Acid (CAS: 94-75-7)			
Inert Ingredients	53.50		

## 3. HAZARDS IDENTIFICATION SUMMARY

**KEEP OUT OF REACH OF CHILDREN – DANGER – PELIGRO – Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle (If you do not understand the label, find someone to explain it to you in detail.)** Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin. Avoid breathing spray mist.

This product is amber to nearly black liquid with “fishy” amine-like odor.

**NOTE TO PHYSICIAN:** If in eyes specialized ophthalmologic attention may be necessary. If swallowed probable mucosal damage may contraindicate gastric lavage. There is no specific antidote; treat symptomatically.

## 4. FIRST AID MEASURES

**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 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 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):** Does not flash

**FLAMMABLE LIMITS (LEL & UEL):** None established

**EXTINGUISHING MEDIA:** 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 25°F/-3.9°C. If frozen, warm to 70°F/21.1°C and redissolve before using by rolling or shaking the container. Do not contaminate water supplies by handling and storage of product.

**EPA HANDLER REQUIREMENTS  
Worker Protection Standard – 40 CFR 170**

**Personal Protective Equipment: Applicators and other handlers must wear:** long sleeved shirt and long pants, waterproof gloves, 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.

**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 dusts exceed acceptable levels, wear a MSHA/NIOSH approved pesticide respirator.

**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.

	OSHA PEL 8 hr TWA	ACGIH TLV-TWA
2,4-D Acid	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
Dimethylamine	18 mg/m <sup>3</sup>	9.2 mg/m <sup>3</sup>

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<p><b>APPEARANCE AND ODOR:</b> Amber to nearly black liquid with “fishy” amine-like odor.</p> <p><b>SPECIFIC GRAVITY (Water= 1):</b> 1.158-1.168 g/ml</p> <p><b>VAPOR PRESSURE:</b> 20.7 mm Hg</p> <p><b>PERCENT VOLATILE (by volume):</b> ±50%</p> <p>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.</p>	<p><b>SOLUBILITY:</b> Miscible</p> <p><b>pH:</b> Not established</p> <p><b>BULK DENSITY:</b> 9.66-9.75 lbs/gal.</p> <p><b>BOILING POINT:</b> Not established</p> <p><b>EVAPORATION RATE:</b> Not established</p>
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**10. STABILITY AND REACTIVITY**

**STABILITY:** Stable

**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.

**CONDITIONS TO AVOID:** Extreme heat or extreme cold.

**11. TOXICOLOGICAL INFORMATION**

<p><b>Acute Oral LD<sub>50</sub> (rat):</b> 1670 mg/kg</p> <p><b>Eye Irritation (rabbit):</b> Corrosive; causes irreversible eye damage</p> <p><b>Inhalation LC<sub>50</sub> (rat):</b> &gt;5.28 mg/L (24 HR)</p> <p><b>Carcinogenic Potential:</b> None listed in OSHA, NTP or ACGIH; IARC Group 2B (limited evidence for carcinogenicity in humans).</p> <p><b>Target Organs:</b> 2,4-D: Skin, CNS, liver, kidneys</p>	<p><b>Acute Dermal LD<sub>50</sub> (rabbit):</b> &gt; 2000 mg/kg</p> <p><b>Skin Irritation (rabbit):</b> Non-irritating; not a sensitizer</p> <p><b>Ingestion:</b> May cause stomach distress, nausea or vomiting.</p>
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**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 water. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from target area.

**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 **less** than 26.7 gallons: NOT REGULATED BY USDOT  
 For containers **greater** than 26.7 gallons: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, UN3082, III (2,4-D) RQ, ERG GUIDE 171  
**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**

<b>NFPA &amp; HMIS Hazard Ratings:</b>	NFPA		HMIS
	3 Health	0 Least	3 Health
	0 Flammability	1 Slight	0 Flammability
	0 Instability	2 Moderate	0 Reactivity
		3 High	H PPE
		4 Severe	

**SARA Hazard Notification/Reporting**

**SARA Title III Hazard Category:** Immediate Y Fire N Sudden Release of Pressure N  
 Delayed N Reactive N

**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 Acid (CAS: 94-75-7) 38.6% 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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