

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

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

- 1.1 **PRODUCT IDENTIFIER:**
TRADE NAME: SABER® HERBICIDE
- 1.2 **RECOMMENDED USE:** AGRICULTURAL HERBICIDE FOR CONTROL OF BROADLEAF WEEDS
- 1.3 **SUPPLIER DETAILS:**
 LOVELAND PRODUCTS, INC.
 P.O. Box 1286 • Greeley, CO 80632-1286
- 1.4 **24 Hour Emergency Phone:** 1-800-424-9300 - **Medical Emergencies:** 1-866-944-8565 – **Product Information:** 1-888-574-2878 (LPI-CUST)
U.S. Coast Guard National Response Center: 1-800-424-8802

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to 29 CFR 1910.1200

Acute Toxicity - Oral	Category 4	H302
Eye Damage/Irritation	Category 1	H318
Sensitization - Skin	Category 1	H317
Aquatic Toxicity – Long term	Category 2	H411

2.2 Label elements



- Signal word: DANGER
- Hazard Statement: H302 – Harmful if swallowed.
 H318 – Causes serious eye damage.
 H317 – May cause an allergic skin reaction.
 H411 – Toxic to aquatic life with long lasting effects.
- Precautionary Statement: P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.
 P264 – Wash hands and face thoroughly after handling.
 P270 – Do not eat, drink or smoke when using this product.
 P272 – Contaminated work clothing must not be allowed out of the workplace.
 P280 – Wear protective gloves/protective clothing/eye protection/face protection.
 P102 – Keep out of reach of children.
 P273 – Avoid release to the environment.
- (Prevention):
- Precautionary Statement: P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
 P330 – Rinse mouth.
 P305+P351+P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
 P302+P352: IF ON SKIN: Wash with plenty of soap and water.
 P337+P313: If eye irritation persists: Get medical advice/attention.
 P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
 P363 – Wash contaminated clothing before reuse.
- (Response):
- Precautionary Statement: P501 – Dispose of contents/container in accordance with local regulations.
 (Disposal):

2.3 Other hazards
 None known



SAFETY DATA SHEET

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3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

Classification according to 29 CFR 1910.1200

Chemical Name:	CAS No.	Classification	Concentration [%]
Dimethylamine salt of 2,4-D	2008-39-1	Eye Dam. 1; H318 Oral tox. 4; H302	46.60
*Other ingredients	n/a	Skin sens. 1; H317 Aquatic Acute. 2; H411	53.40

*Ingredients not specifically listed are non-hazardous or are to be considered proprietary or confidential business information per 29 CFR 1910.1200(i)

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

- 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 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 clothing:** 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:** 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.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Eyes: Causes serious eye damage.
Oral: Harmful if swallowed.

4.3 Immediate Medical Attention and Special Treatment

Treatment: Treat symptomatically. Symptoms may be delayed.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565

Take container, label or product name with you when seeking medical attention.

NOTES 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.



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5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide (CO₂), alcohol foam, foam, water spray or fog.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: Ammonia, oxides of nitrogen, chlorine-containing compounds and other unknown materials may be formed in a fire situation.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Avoid inhalation of vapors and spray mist and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: May be toxic to fish and aquatic 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 disposing of equipment washwaters or rinsate.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. After removal flush contaminated area thoroughly with water.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to Remove residual contamination.
Never return spills to original containers for re-use.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe 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.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Store in a cool, dry, locked storage area inaccessible to children and pets. Avoid contamination of fertilizers, seeds, plants, insecticides, and fungicides in storage. Keep from freezing. Keep container tightly closed when not in use. When transfer to another container is necessary because of leakage or damage, carefully mark and identify contents of new container. If label is damaged or missing, contact dealer or manufacturer. Absorb spills with granular clay absorbent and dispose of as indicated under PESTICIDE DISPOSAL. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS

U.S. Workplace Exposure Level (ACGIH) TLVs

Components	Type	Value
2,4-D Acid	TLV	10 mg/m ³
Dimethylamine	TLV	9.2 mg/m ³

U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
2,4-D Acid	TLV	10 mg/m ³
Dimethylamine	TLV	18 mg/m ³

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen
No listings		



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8.2 EXPOSURE CONTROLS:

Engineering Measures

Provide adequate general and local exhaust ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and spray mists. Provide eyewash station and safety shower.

Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.

Skin Protection: Long-sleeved shirt and long pants. Chemical-resistant gloves, such as polyethylene or polyvinylchloride. Shoes plus socks.

Respiratory Protection: In case of inadequate ventilation or risk of inhalation of mists or vapors, use suitable respiratory equipment such as MSHA/NIOSH TC-84A with NIOSH equipped N, R, or P class filter media. Wear respiratory protection during operations where spraying or misting occurs. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE :	Liquid
ODOR:	Fishy, amine-like.
ODOR THRESHOLD:	No data available.
COLOR:	Dark brown.
pH:	8.7
MELTING POINT / FREEZING POINT:	No data available
BOILING POINT:	No data available
FLASH POINT:	> 212°F / > 100°C.
FLAMMABILITY (solid, gas):	No data available.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	No data available.
VAPOR PRESSURE:	9.0 mmHg.
SOLUBILITY:	Emulsifies.
PARTITION CO-EFFICIENT, n-OCTANOL / WATER:	No data available.
AUTO-IGNITION TEMPERATURE:	No data available.
DECOMPOSITION TEMPERATURE:	No data available.
VISCOSITY: (kinematic):	14.231 centistokes @ 20°C 6.587 centistokes @ 40°C
SPECIFIC GRAVITY (Water = 1):	1.176 g/ml
BULK DENSITY:	9.8 lbs./gal / 1.17 kg/L

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

10.1 REACTIVITY

Stable

10.2 CHEMICAL STABILITY

Stable under normal temperature conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No data available. Will not polymerize.

10.4 CONDITIONS TO AVOID

Excessive heat and moisture.

10.5 INCOMPATIBLE MATERIALS

Strong acids.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Ammonia, oxides of nitrogen, chlorine-containing compounds and other unknown hazardous material may be formed in a fire situation. Oxides of carbon and/or other asphyxiants may be formed from incomplete combustion.

11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Eye contact. Harmful if swallowed.

LC₅₀ (rat): > 2.06 mg/L (4 HR)

LD₅₀ Oral (female rat): 1,098 mg/kg

LD₅₀ Dermal (rat): > 2,000 mg/kg

Acute Toxicity Estimates: No data available

Skin Irritation (rabbit): Moderate skin irritant.

Eye Irritation (rabbit): Corrosive; causes irreversible eye damage.

Specific Target Organ Toxicity: Skin, CNS, liver, kidneys.

Aspiration: No data available

Skin Sensitization (guinea pig): Not a sensitizer

Carcinogenicity: IARC Group 2B (limited evidence for carcinogenicity in humans).

Germ Cell Mutagenicity: No data available

Interactive Effects: None known



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12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY

The product may be toxic to fish and aquatic invertebrates. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Information below is based on the technical ingredient 2,4-D acid.

Ecotoxicological Data

	Species	Test Results
2,4-D Acid	Rainbow trout	245 mg/L – 96-hour LC ₅₀
	Bluegill	524 mg/L – 96-hour LC ₅₀
	Fathead minnow	344 mg/L – 96-hour LC ₅₀
	Pink shrimp	181 mg/L – 96-hour LC ₅₀
	Daphnia magna	184 mg/L – 96-hour LC ₅₀
	Tidewater silverside	469 mg/L – 96-hour LC ₅₀
	Eastern oyster	136 mg/L – 48-hour EC ₅₀

Drift or runoff may adversely affect non-target plants.
Do not apply directly to water.
Do not contaminate water when disposing of equipment wash water.
Do not apply when weather conditions favor drift from target area.

12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: Biochemical oxygen demand is 0.72 for 5, 10 and 20 days. Chemical oxygen demand is 0.72. Under aerobic soil conditions the half-life is 4 – 23 days. Under aerobic aquatic conditions, the half-life is 0.5 – 11 days.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or log Pow < 3).

12.4 MOBILITY IN SOIL

High (50 < Koc < 150). Soil organic carbon/water partition coefficient (Koc) is 72-136.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13 DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Wastes may be disposed of on site or at an approved waste disposal facility. Triple rinse (or equivalent), adding rinse water to spray tank. Offer container for recycling or dispose of in a sanitary landfill or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at <http://www.acrecycle.org/>. Do not contaminate water, food or feed by storage or disposal.

14 TRANSPORT INFORMATION

14.3 LAND TRANSPORT

DOT Shipping Description: Less than 22 gallons: NOT REGULATED

DOT Shipping Description: 22 gallons and greater: RQ UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D), 9, III, ERG GUIDE 171

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

15 REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

NFPA & HMIS Hazard Ratings:

NFPA

2	Health	0	Least
0	Flammability	1	Slight
0	Instability	2	Moderate
		3	High
		4	Severe

HMIS

2	Health
0	Flammability
0	Reactivity
H	PPE

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>N</u>	Reactive	<u>N</u>		



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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) 38.7% acid equivalent
RCRA Waste Code: U240; D016
CA Proposition 65: Not listed.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER

Corrosive, causes irreversible eye damage.
Harmful if swallowed or absorbed through skin.
Do not get in eyes or on clothing.
Avoid contact with skin.
Avoid breathing spray mist.

16 OTHER INFORMATION

SDS STATUS: Format revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

EPA REG. NO.: 34704-803

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