

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: **SWORD®**
- 1.2 **RECOMMENDED USE:** SELECTIVE HERBICIDE FOR BROADLEAF WEED CONTROL IN LISTED CROPS
- 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 – Dermal	Category 3	H311
Acute Toxicity – Oral	Category 4	H302
Specific Target Organ Toxicity – Repeated Exposure	Category 2	H373
Aquatic Acute	Category 2	H401

2.2 Label elements



- Signal word: **DANGER**
- Hazard Statement:
H311 – Toxic in contact with skin.
H302 – Harmful if swallowed.
H373 – May cause damage to organs (liver, kidneys) through prolonged or repeated exposure.
H401 – Toxic to aquatic life.
- Precautionary Statement:
(Prevention): P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P264 – Wash hands and face thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P260 – Do not breathe dust/fume/gas/mist/vapors/spray.
- Precautionary Statement:
(Response): P302+P352: IF ON SKIN: Wash with soap and water.
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 – Rinse mouth.
P314 – Get medical attention if you feel unwell.
P361 – Remove/Take off immediately all contaminated clothing and wash it before reuse.
- Precautionary Statement:
(Storage): P405 – Store locked up.
(Disposal): P501 – Dispose of contents/container in accordance with federal, state and local regulations.

2.3 Other hazards

None known



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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 [%]
Isooctyl (2-ethylhexyl) ester of MCPA	29450-45-1	Dermal tox. 3; H311 Oral. tox: 4; H302 STOT-RE. 2; H373 Aquatic Acute. 1; H401	88 - 94
*Other ingredients	Trade Secret		Trade Secret

*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 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 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Eye exposure may cause mild irritation. Skin exposure may cause mild irritation. If ingested or absorbed through the skin, may cause diarrhea, headache, nausea, and vomiting.

4.3 Immediate Medical Attention and Special Treatment

Treatment: For ingestion there is no specific antidote. Treat symptomatically.
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: Treat symptomatically.

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: May produce gases such as hydrogen chloride, oxides of nitrogen and oxides of carbon.

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.



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6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

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

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: This pesticide is toxic to aquatic life. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. The active ingredient in this product can be persistent for several months or longer. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark, or other sensitive areas that may be exposed to spray drift. 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: Absorb and/or contain spill with inert material, then place in a suitable container. Check local, state and federal regulations for proper disposal. Never return spills to original containers for re-use.
CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling: Do not breathe mist, vapors or spray. 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: Always store pesticides in a secured warehouse or storage building. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in use. Do not stack cardboard cases more than two pallets high. Do not store near open containers of fertilizer, seed or other pesticides. 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
No data available	TWA	

U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
No data available	TWA	

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen
No data available		



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8.2 EXPOSURE CONTROLS:

Engineering Measures

When engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation or engineering controls specific to the task at hand (refer to product labeling for specific information).

Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.
Skin Protection: Long-sleeved shirt and long pants. Chemical-resistant gloves. Shoes plus socks. Chemical resistant apron (for mixers loaders, and cleaners).
Respiratory Protection: Not normally required, if vapors or dusts exceed acceptable levels, wear a MSHA/NIOSH approved air-purifying respirator with any cartridges/filter approved for pesticides. 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: Aromatic hydrocarbon.
ODOR THRESHOLD: No data available.
COLOR: Dark brown.
pH: 3.51 (5% dispersion in de-ionized water)
MELTING POINT / FREEZING POINT: No data available
BOILING POINT: No data available
FLASH POINT: >230°F (>110°C) Seta-flash.
FLAMMABILITY (solid, gas): No data available.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available.
VAPOR PRESSURE: No data available.
SOLUBILITY: Soluble.
PARTITION CO-EFFICIENT, n-OCTANOL / WATER: No data available.
AUTO-IGNITION TEMPERATURE: No data available.
DECOMPOSITION TEMPERATURE: No data available.
VISCOSITY: (kinematic): 28.5 cPs @ 25°C | 14.5 cPs @ 39°C
SPECIFIC GRAVITY (Water = 1): 1.055 g/ml
DENSITY: 8.80 lbs./gal. / 1.05 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

Will not polymerize. Reaction with oxidizers may cause fire.

10.4 CONDITIONS TO AVOID

Excessive heat. Do not store near heat of flame.

10.5 INCOMPATIBLE MATERIALS

Strong oxidizing agents. Strong bases and strong acids.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition products include, but are not limited to, hydrogen chloride, oxides of carbon and oxides of nitrogen.



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11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Skin contact. Eye contact.

LC₅₀ (rat): > 5.00 mg/L (4 HR)

LD₅₀ Oral (rat): 1,372 mg/kg

LD₅₀ Dermal (rabbit): > 1,000 mg/kg

Acute Toxicity Estimates: No data available

Skin Irritation (rabbit): Moderately toxic and mildly irritating. Overexposure by skin absorption may cause symptoms similar to those of ingestion.

Eye Irritation (rabbit): Mildly irritating.

Specific Target Organ Toxicity: Repeated overexposure may cause damage to liver, kidneys, blood chemistry, and gross motor function.

Aspiration: May be fatal if swallowed and enters airways

Skin Sensitization (guinea pig): Not a sensitizer.

Carcinogenicity: IARC-2B (Possibly Carcinogenic to Humans)

Germ Cell Mutagenicity: No data available

Interactive Effects: None known

12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY

The product is very toxic to aquatic life.

Ecotoxicological Data

	Species	Test Results
MCPA 2EHE	Rainbow trout	3.2 mg/L – 96-hour LC ₅₀
	Bluegill	3.9 mg/L – 96-hour LC ₅₀
	Daphnia Magna	0.28 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: No data available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

12.4 MOBILITY IN SOIL

No data available.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13 DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If container is damaged or if pesticide has leaked, contain all spillage. Absorb and clean up all spilled material with granules or sand. Place in a closed labeled container for proper disposal.

CONTAINER DISPOSAL: Nonrefillable Containers 5 Gallons or Less: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. **Nonrefillable containers larger than 5 gallons:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. If recycling or reconditioning not available, puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. **Refillable containers larger than 5 gallons:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Do not contaminate water, food, or feed by storage or disposal.



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14 TRANSPORT INFORMATION

14.3 LAND TRANSPORT

DOT Shipping Description: NOT REGULATED.

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
1 Flammability
0 Instability

0 Least
1 Slight
2 Moderate
3 High
4 Severe

HMIS

2 Health
1 Flammability
0 Reactivity
B PPE

SARA Hazard Notification/Reporting

SARA Title III Hazard Category:

Immediate Y
Delayed N

Fire N
Reactive N

Sudden Release of Pressure N

Reportable Quantity (RQ) under U.S. CERCLA: Not listed.

SARA, Title III, Section 313: Not listed.

RCRA Waste Code: Not listed.

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:

WARNING

May be fatal if absorbed through skin.

Harmful if swallowed.

Do not get in eyes, on skin or on clothing.

16 OTHER INFORMATION

SDS STATUS: Section 14 revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

EPA REG. NO.: 228-267-34704

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