

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: DIURON 4L HERBICIDE
- 1.2 **RECOMMENDED USE:** FOR CONTROL OF MANY ANNUAL AND PERENNIAL GRASSES AND HERBACEOUS 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
Skin Corrosion/Irritation	Category 2	H315
Eye Damage/Irritation	Category 2B	H320
Carcinogenicity	Category 2	H351
Aquatic acute toxicity	Category 1	H400
Aquatic chronic toxicity	Category 1	H410

2.2 Label elements



Signal word: WARNING

Hazard Statement: H302 – Harmful if swallowed.
 H320 – Causes eye irritation.
 H315 – Causes skin irritation.
 H351 – Suspected of causing cancer.
 H400 – Very toxic to aquatic life.
 H410 – Very toxic to aquatic life with long lasting effects.

Precautionary Statement: P262 – Do not get in eyes, on skin, or on clothing.
 P264 - Wash thoroughly after handling.

(Prevention): P271 – Use only outdoors or in a well-ventilated area.
 P280 – Wear protective gloves / eye protection / face protection.
 P102 – Keep out of reach of children.

Precautionary Statement: P305+P351+P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

(Response): P101 – If medical advice is needed, have the product container or label at hand.
 P363 – Wash contaminated clothing before reuse.
 P391 – Collect spillage.

Precautionary Statement: (Storage): P402+P234 – Store above 10°F (-12°C) to keep product from crystallizing. Keep only in original container.
 P405 – Store locked up.



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2.3 Other hazards

None known

3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

Classification according to 29 CFR 1910.1200

Chemical Name:	CAS No.	Concentration [%]
Diuron	330-54-1	40.00
Other ingredients	n/a	Balance

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 of contaminated clothing. Rinse skin immediately 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 mouth-to-mouth if possible. Call a poison control center or doctor for further 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.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Eyes: Causes eye irritation.
Skin: Causes skin irritation.

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: Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.



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5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Dry chemical, carbon dioxide (CO₂), alcohol foam, foam, water spray or fog. Do not use water jet as this will spread the fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: During a fire, hazardous by-products can be released.

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: 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: Avoid inhalation of mists, vapors / spray and contact with eyes, skin and clothing. Do not breathe mists or vapor. Wear personal protective equipment. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Do not empty into drains. Handle and open container with care. Use care in handling/storage. Wash before eating, drinking and/or smoking.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Store above 10°F (-12.2°C) to keep product from crystallizing. Crystals will settle to the bottom of the container. If allowed to crystallize, place in a warm room at 68°F (20°C) for several days to redissolve and roll or shake container or recirculate in mini-bulk or bulk containers to mix well before using. Do not contaminate water, foodstuffs, feed or seed 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
Diuron	TLV	10 mg/m ³

U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
No data available.		

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:	Slight.
ODOR THRESHOLD:	No data available.
COLOR:	Light beige.
pH:	7.1
MELTING POINT / FREEZING POINT:	No data available
BOILING POINT:	No data available
FLASH POINT:	Does not flash.
FLAMMABILITY (solid, gas):	No data available.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	No data available.
VAPOR PRESSURE:	No data available.
SOLUBILITY:	Dispersible.
PARTITION CO-EFFICIENT, n-OCTANOL / WATER:	No data available.
AUTO-IGNITION TEMPERATURE:	No data available.
DECOMPOSITION TEMPERATURE:	No data available.
VISCOSITY: (kinematic):	580 cps
SPECIFIC GRAVITY (Water = 1):	1.20 g/ml
DENSITY:	10.04 lbs./gal / 1.20 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

Oxides of nitrogen 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.



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11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Eye contact. Skin contact. Ingestion.

LC₅₀ (rat): >6.49 mg/L (4 HR)

LD₅₀ Oral (rat): > 3,000 mg/kg

LD₅₀ Dermal (rat): > 2,000 mg/kg

Acute Toxicity Estimates: No data available

Skin Irritation (rabbit): Causes skin irritation.

Eye Irritation (rabbit): Causes eye irritation

Specific Target Organ Toxicity: Single exposure: No data available.

Aspiration: No data available

Skin Sensitization (guinea pig): Not a sensitizer

Carcinogenicity: Likely to cause cancer in humans (EPA 10/2/2014)

Germ Cell Mutagenicity: No data available

Interactive Effects: None known

12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Ecotoxicological Data

	Species	Test Results
Diuron	Rainbow trout	1.95 ppm – 96-hour LC ₅₀
	Bluegill	2.8 ppm – 96-hour LC ₅₀
	Daphnia magna	1.4 ppm – 48-hour EC ₅₀
	Bee	>145 µ/bee – Contact LD 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

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: < 30 GALLONS NOT REGULATED BY DOT

DOT Shipping Description: > 30 GALLONS: RQ UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (DIURON), 9, III, ERG GUIDE 171

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



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15 REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

NFPA & HMIS Hazard Ratings:

NFPA				HMIS	
2	Health	0	Least	2	Health
0	Flammability	1	Slight	0	Flammability
0	Instability	2	Moderate	0	Reactivity
		3	High	B	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: Diuron (CAS: 330-54-1) 100 pounds.

SARA, Title III, Section 313: Diuron (CAS: 330-54-1) 40.0%.

RCRA Waste Code: Not listed.

CA Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

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:

CAUTION

- Harmful if swallowed.
- Causes moderate eye irritation.
- Avoid breathing spray mist.
- Avoid contact with eyes, skin, or clothing.

16 OTHER INFORMATION

SDS STATUS: Sections 1 and 15 revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

EPA REG. NO.: 34704-854

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