

# SAFETY DATA SHEET

SDS NUMBER: 000836-15-LPI

SDS REVISIONS: FORMAT

DATE OF ISSUE: 11/06/15

**STRATEGY™**

SUPERSEDES: 07/31/08

**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: **STRATEGY™**

1.2 **RECOMMENDED USE:** PRE-EMERGENT BROADLEAF WEED AND SEASONAL GRASS CONTROL IN CUCURBITS

### 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**

Eye Damage/Irritation

Category 2B

H320

Environmental Hazards/Aquatic Toxicity

Category 2

H401

### 2.2 Label elements

None

Signal word:

WARNING

Hazard Statement:

H320 – Causes eye irritation.

H401 – Toxic to aquatic life.

Precautionary

Statement:

(Prevention):

P264 – Wash hands and face thoroughly after handling.

Precautionary

Statement:

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

(Response):

Precautionary

Statement:

(Storage):

See section 7.

### 2.3 Other hazards

None known

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**3. COMPOSITION, INFORMATION ON INGREDIENTS**

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**3.1 Substances****3.2 Mixtures****Classification according to 29 CFR 1910.1200**

Chemical Name:	CAS No.	Classification	Concentration [%]
Ethalfuralin	55283-68-6	Eye Dam/irrit. 2B; H320	18.20
Clomazone	81777-89-1		5.60
*Other ingredients (contains Naphthalene)	Trade Secret 91-20-3		76.20

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

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**4. FIRST AID MEASURES**

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**4.1 Description of First Aid Measures**

General Advice: Get medical attention if symptoms occur.

- 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 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 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 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: Eyes: Causes eye 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:** There is no specific antidote. Treat symptomatically.

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**5. FIRE FIGHTING MEASURES**

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**5.1 EXTINGUISHING MEDIA:**

Suitable Extinguishing Media: Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide (CO<sub>2</sub>), 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 hazardous material may be released 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.

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**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: This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, 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. Runoff or erosion from treated areas may be hazardous to fish in neighboring areas. Due to risk to plants and animals in aquatic habitats that receive runoff containing this product, use of controls such as a vegetative buffer strip to filter such water flow from recently treated fields is recommended. Do not apply when weather conditions favor drift from target areas.

**6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP**

Methods for Clean-Up: Avoid breathing mists. Contain spill and 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. Never return spills to original containers for re-use.

**7. HANDLING AND STORAGE****7.1 PRECAUTIONS FOR SAFE HANDLING:**

Advice on Safe Handling: Do not use or store near heat or open flame. 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: Avoid freezing. Store above 40°F (5°C). If frozen, poor weed control may result. Do not use or store near heat or open flame. Store in original container only. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste. 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
Naphthalene	TWA	52 mg/m <sup>3</sup>

**U.S. Workplace Exposure Level (OSHA) PELs**

Components	Type	Value
Naphthalene	TWA	50 mg/m <sup>3</sup>

**Biological limit values****ACGIH Biological Exposure Indices**

Components	Value	Specimen
No listings		

**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: Coveralls. Long-sleeved shirt and long pants. Chemical-resistant gloves, such as barrier laminate or viton. 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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE :	Liquid
ODOR:	Acrylic paint-like.
ODOR THRESHOLD:	No data available.
COLOR:	Bright yellow.
pH:	7.68 (2% solution)
MELTING POINT / FREEZING POINT:	Not applicable
BOILING POINT:	>215°F (>101.7°C)
FLASH POINT:	No data available.
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:	No data available.
SPECIFIC GRAVITY (Water = 1):	1.049 g/ml
DENSITY:	8.75 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

No data available. Will not polymerize.

### 10.4 CONDITIONS TO AVOID

Excessive heat or cold.

### 10.5 INCOMPATIBLE MATERIALS

Strong bases and oxidizers.

### 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.

LC<sub>50</sub> (rat): > 2.38 mg/L (4 HR)

LD<sub>50</sub> Oral (rat): > 5,050 mg/kg

LD<sub>50</sub> Dermal (rat): > 5,050 mg/kg

Acute Toxicity Estimates: No data available

Skin Corrosion/ Irritation (rabbit): Not an irritant.

Serious Eye Damage/ Irritation (rabbit): Irritant.

Specific Target Organ Toxicity:

Single Exposure: Eyes

Aspiration: No data available

Specific Target Organ Toxicity:

Repeated Exposure: No data available.

Skin Sensitization (guinea pig): Not a sensitizer

Carcinogenicity: IARC 2B (Naphthalene has been determined to be a Possible Human Carcinogen).

Reproductive Toxicity: No data available.

Germ Cell Mutagenicity: No data available

Interactive Effects: None known

Other Information: None available.

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**12 ECOLOGICAL INFORMATION**

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**12.3 ECOTOXICITY**

The product is 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 Atrazine.

**Ecotoxicological Data**

	Species	Test Results
Ethalfluralin	Oncorhynchus mykiss	0.136 mg/L – 96-hour LC <sub>50</sub>
	Lepomis macrochirus	0.102 mg/L – 96-hour LC <sub>50</sub>
	Crassotrea virginica	0.172 mg/L – 48-hour EC <sub>50</sub>
Clomazone	Fish	15.5 mg/L – 96-hour LC <sub>50</sub>
	Crustacea	12.7 mg/L – 48-hour EC <sub>50</sub>

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.

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**13 DISPOSAL CONSIDERATIONS**

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**13.1 WASTE TREATMENT METHODS**

**PESTICIDE DISPOSAL:** Pesticide, spray mixture, or rinse water that cannot be used according to label instructions must be disposed of according to applicable federal, state or local procedures. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL: Non-refillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at [www.acrecycle.org](http://www.acrecycle.org). If not recycled, then puncture and dispose of in a sanitary landfill, or 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. **(For packages up to 5 gallons:) 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 ¼ 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. **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. **(For packages greater than 5 gallons or 50 lbs.:** 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. 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. **(For square bottom caged totes greater than 55 gals.:** Triple rinse or 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. Fill the container about ¼ full with water, rinsing down all sides inside the container thoroughly. Recirculate water with the pump for 2 minutes. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **(For refillable containers.:** 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 mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 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 BY DOT.

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**

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

**HMIS**

1	Health
1	Flammability
1	Reactivity
H	PPE

**SARA Hazard Notification/Reporting**

<b>SARA Title III Hazard Category:</b>	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: Naphthalene (CAS: 91-20-3) 100 pounds.

SARA, Title III, Section 313: Naphthalene (CAS: 91-20-3) 3.90%

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**

Causes moderate eye irritation.

Avoid contact with eyes or clothing.

Wear long-sleeved shirt and long pants, socks and shoes

**16 OTHER INFORMATION**

SDS STATUS: Format revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

EPA REG. NO.: 34704-836

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