

**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:** SMACKDOWN™ HERBICIDE
- 1.2 **RECOMMENDED USE:** AGRICULTURAL HERBICIDE FOR USE ON TOLERANT AND CONVENTIONAL FIELD AND SILAGE CORN
- 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 2A	H319
Sensitization – Skin	Category 1A	H317
Carcinogenicity	Category 2	H351
STOT – SE	Category 3	H335

**2.2 Label elements**



- Signal word: WARNING
- Hazard Statement: H319 – Causes serious eye irritation.  
 H317 – May cause an allergic skin reaction.  
 H351 – Suspected of causing cancer.  
 H335 – May cause respiratory irritation.
- Precautionary Statement: P201 – Obtain special instructions before use.  
 P202 – Do not handle until all safety precautions has been read and understood.  
 P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P264 – Wash skin thoroughly after handling.
- (Prevention): P271 – Use only outdoors or in a well-ventilated area.  
 P272 – Contaminated work clothing should not be allowed out of the workplace.  
 P280 – Wear protective gloves/protective clothing/eye protection/face protection.
- Precautionary Statement: P302+P352: IF ON SKIN: wash with plenty of soap and water.  
 P304+P340: IF INHALED: Remove person to fresh air and keep in a position comfortable for breathing.  
 P304+P312: IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
 P308+P313 – If exposed or concerned. Get medical advice/attention.
- (Response): P333+P313 – If skin irritation or rash persists: Get medical advice/attention.  
 P337+P313 – If eye irritation persists: Get medical advice/attention.  
 P363 – Wash contaminated clothing before reuse.
- Precautionary Statement: (Storage): P403+P233+P234 – Store in a well-ventilated place. Keep container tightly closed. Keep only in original container.  
 P405 – Store locked up.
- Precautionary Statement: (Disposal): P501 – Dispose of contents container to an approved waste disposal facility.

**2.3 Other hazards**

None known



# SAFETY DATA SHEET

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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.	Concentration [%]
Acetochlor	34256-82-1	41.67
Clopyralid Monoethanolamine salt	57754-85-5	4.27
Flumetsulam	98967-40-9	1.30
Furilazole	121776-33-8	0.99
Propylene glycol	57-55-6	8.70
Solvent naphtha (petroleum), heavy aromatic	64742-95-6	1.50
Naphthalene	91-20-3	0.10
*Other ingredients	n/a	41.47

\*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 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.
- 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 serious eye irritation.  
Oral: May cause respiratory 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:** 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.



**5. FIRE FIGHTING MEASURES**

- 5.1 EXTINGUISHING MEDIA:**  
Suitable Extinguishing Media: This material does not burn. 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: Combustion products may include but are not limited to oxides of nitrogen, hydrogen chloride, chlorine-containing compounds, oxides of carbon, and other unknown materials.
- 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: Isolate area. Keep unprotected and unnecessary personnel from entering the area. Refer to section 7, Precautions for Safe Handling, for additional precautionary measures. Keep upwind. Ventilate area of leak or spill. 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: Keep out of reach of children. Do not swallow. Avoid contact with eyes, skin, and clothing. 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 dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies. 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> - 10 ppm (skin)

  

U.S. Workplace Exposure Level (OSHA) PELs		
Components	Type	Value
Naphthalene	TWA	50 mg/m <sup>3</sup> - 10 ppm

**Biological limit values**

ACGIH Biological Exposure Indices		
Components	Value	Specimen
Naphthalene	Under study	Skin



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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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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9.1 APPEARANCE : Liquid  
ODOR: Mild.  
ODOR THRESHOLD: No data available.  
COLOR: Tan.  
pH: 4.31  
MELTING POINT / FREEZING POINT: No data available  
BOILING POINT: No data available  
FLASH POINT: > 212 °F / > 100 °C (PMCC).  
FLAMMABILITY (solid, gas): No data available.  
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available.  
VAPOR PRESSURE: No data available.  
SOLUBILITY: Miscible.  
PARTITION CO-EFFICIENT, n-OCTANOL / WATER: No data available.  
AUTO-IGNITION TEMPERATURE: No data available.  
DECOMPOSITION TEMPERATURE: No data available.  
VISCOSITY: (kinematic): No data available  
SPECIFIC GRAVITY (Water = 1): 1.0881 g/ml  
DENSITY: 9.08 lbs./gal / 1.09 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.

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## 10. STABILITY AND REACTIVITY

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### 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

Exposure to elevated temperatures can cause product to decompose.

### 10.5 INCOMPATIBLE MATERIALS

Strong oxidizers.

### 10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of nitrogen, Hydrogen chloride, chlorine-containing compounds, oxides of carbon, and other unknown hazardous material may be formed in a fire situation.

**11 TOXICOLOGICAL INFORMATION**

**11.3 LIKELY ROUTES OF EXPOSURE**

Eye contact. Low toxicity if swallowed.  
**LC<sub>50</sub> (rat):** >5.6 mg/L (4 HR) [similar material]  
**LD<sub>50</sub> Oral (rat):** > 2,000 mg/kg (similar material)  
**LD<sub>50</sub> Dermal (rat):** > 2,000 mg/kg (similar material)  
**Acute Toxicity Estimates:** No data available  
**Skin Irritation (rabbit):** Slight irritant.  
**Eye Irritation (rabbit):** Causes serious eye irritation.  
**Specific Target Organ Toxicity:** May cause respiratory irritation.  
**Aspiration:** No data available  
**Skin Sensitization (guinea pig):** Not a sensitizer  
**Carcinogenicity:** Naphthalene: IARC Group 2B (Possibly Carcinogenic to Humans)  
 NTP-R (Reasonably Anticipated to Be a Human Carcinogen)  
 ACGIH TLV-A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans).  
**Germ Cell Mutagenicity:** No data available  
**Interactive Effects:** None known

**12 ECOLOGICAL INFORMATION**

**12.3 ECOTOXICITY**

The product is very highly toxic to aquatic organisms. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Ecotoxicological Data**

	<b>Species</b>	<b>Test Results</b>
Acetochlor	Oncorhynchus mykiss	0.36 mg/L – 96-hour LC <sub>50</sub>
	Daphnia magna	8.6 mg/L – 48-hour EC <sub>50</sub>
	Eastern oyster	4.2 mg/L – 48-hour EC <sub>50</sub>
	Apis mellifera (Bees)	> 100µ/bee – 48-hour – Oral LD <sub>50</sub> 200µ/bee – 48-hour – Contact LD <sub>50</sub>
Clopyralid Monoethanolamine salt	Oncorhynchus mykiss	> 100mg/L – 96-hour LC <sub>50</sub>
	Daphnia magna	> 100 mg/L – 48-hour EC <sub>50</sub>
	Apis mellifera (Bees)	> 100µ/bee – 48-d – Contact LD <sub>50</sub> > 98.1µ/bee – 48-d – Oral LD <sub>50</sub>
Flumetsulam	Oncorhynchus mykiss	> 300 mg/L – 96-hour LC <sub>50</sub>
	Daphnia magna	> 300 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:** Acetochlor: No data available.  
 Clopyralid Monoethanolamine salt: Expected to biodegrade very slowly in the environment.  
 Flumetsulam: Not readily biodegradable

**12.3 BIOACCUMULATIVE POTENTIAL**

**Bioaccumulation:** Acetochlor: Bioconcentration potential is low (BCF < 100 or log Pow < 3).  
 Clopyralid monoethanolamine salt: Bioconcentration potential is low (BCF < 100 or log Pow < 3).  
 Flumetsulam: Bioconcentration potential is low (BCF < 100 or log Pow < 3).

**12.4 MOBILITY IN SOIL**

Acetochlor: Medium (Koc 150 - 500). Partition coefficient (Koc) is 156 Estimated.  
 Clopyralid Monoethanolamine salt: Very high (Koc 0 - 50).  
 Flumetsulam: Very high (Koc 0 - 50). Partition coefficient (Koc) is 15.

**12.5 OTHER ADVERSE EFFECTS**

**Assessment:** No data available.



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**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: 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

HMIS

1 Health  
0 Flammability  
0 Instability

0 Least  
1 Slight  
2 Moderate  
3 High  
4 Severe

1 Health  
0 Flammability  
0 Reactivity  
H PPE

SARA Hazard Notification/Reporting

SARA Title III Hazard Category:

Immediate    Y  
Delayed        Y

Fire            N  
Reactive       N

Sudden Release of Pressure    N

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

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

RCRA Waste Code: Not listed

CA Proposition 65: **WARNING:** This product contain 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:

**WARNING**

Causes substantial but temporary eye injury.

Harmful if absorbed through skin.

Harmful if swallowed.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Do not get in eyes or on clothing.

Wear protective eyewear (goggles, face shield, or safety glasses).

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Removed and wash contaminated clothing before reuse.

Avoid contact with skin.

**16 OTHER INFORMATION**

SDS STATUS: New.

PREPARED BY: Registrations and Regulatory Affairs

EPA REG. NO.: 34704-1094

REVIEWED BY: Environmental Health and Safety

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