



**SAFETY DATA SHEET**

**SIGNATURE® TALSTAR® 0.073% PLUS FERTILIZER - LC**

SDS NUMBER: 2793223-15-LPI

SDS REVISIONS: FORMAT

DATE OF ISSUE: 03/30/15

SUPERSEDES: 01/19/15

**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:** SIGNATURE® TALSTAR® 0.073% PLUS FERTILIZER - LC 17-2-10 WITH 25% XCU™

**1.2 RECOMMENDED USE:** FERTILIZER FOR USE BY LANDSCAPE PROFESSIONALS

**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  
**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
Skin Corrosion/Irritation	Category 2	H315
Acute Toxicity – Oral	Category 4	H302
Acute Toxicity - Inhalation	Category 4	H332

**2.2 Label elements**



**Signal word:** WARNING  
**Hazard Statement:** H319 – Causes serious eye irritation.  
H315 – Causes skin irritation.  
H302 – Harmful if swallowed.  
H332 – Harmful if inhaled.

**Precautionary Statement: (Prevention):** 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.  
P271 – Use only outdoors or in a well-ventilated area.  
P280 – Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary Statement: (Response):** 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.  
P302+P352 – IF ON SKIN: Wash with plenty soap and water.  
P321 – Specific treatment (see Note to Physician on the product label).  
P332+P313 – If skin irritation occurs: Get medical advice/attention.  
P362 – Take off contaminated clothing and wash it before reuse.  
P301+P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 – Rinse mouth.  
P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 – Call a POISON CENTER or doctor/physician if you feel unwell.

**Precautionary Statement: (Disposal):** P501 – Dispose of contents/container in accordance with local, state, and federal regulations. (See Storage and Disposal on the product label).

**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.	Concentration [%]
Bifenthrin	82657-04-3	0.073
Urea	57-13-6	0.1 – 98
Polymer Coating	Mixture	Trace
Muriate of Potash	7447-40-7	0.1 - 20
Diammonium Phosphate	7783-28-0	0.1 - 50

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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.

- Eye contact:** 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.
- Skin contact:** 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.
- Ingestion:** 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.
- Inhalation:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

#### 4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Causes serious 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:** No specific antidote. 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

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#### 5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Dry chemical, carbon dioxide (CO<sub>2</sub>), 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 breathing dusts. And contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

**6.2 ENVIRONMENTAL PRECAUTIONS**

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not contaminate water. Do not allow to enter drains, sewers, or watercourses.

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

**Methods for Clean-Up:**

Sweep up dry spills immediately and transfer to suitable containers for possible land application according to label use or for disposal. 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: 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 place and in such a manner as to prevent cross-contamination with other pesticides, fertilizers, food and feed. Store in original container and out of reach of children, preferably in a locked storage area. 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 (OSHA, ACGIH or AIHA) Guides**

Components	Type	Value
Urea (CAS: 57-13-6)	TWA	10 mg/m <sup>3</sup>
Particulates not otherwise classified / regulated (PNOC; PNOR)	TWA	15 mg/m <sup>3</sup> (Total dust); 5 mg/m <sup>3</sup> (Respirable fraction)

**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 dusts and spray mists. Provide eyewash station and safety shower.

**Individual Protection Measures:**

Eye / Face Protection: Goggles or shielded safety glasses are recommended.  
 Skin Protection: Wear chemical-resistant gloves. Long-sleeved shirt, long pants, and 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-21C or NIOSH approved respirator with N, R, P or HE filter. 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: Solid.
- ODOR: Slight aromatic.
- ODOR THRESHOLD: No data available.
- COLOR: Light yellow to brown-colored.
- pH: Not applicable.
- MELTING POINT / FREEZING POINT: No data available.
- BOILING POINT: Not applicable.
- FLASH POINT: Not applicable.
- FLAMMABILITY (solid, gas): No data available.
- UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available.
- VAPOR PRESSURE: No data available.
- SOLUBILITY: Not applicable.
- 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): 0.80 – 0.86 g/ml
- BULK DENSITY: 50 - 54 lbs/ft<sup>3</sup> / 800.9 kg/m<sup>3</sup> – 864.9 kg/m<sup>3</sup>

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 reactions known under normal use conditions. Will not polymerize.

**10.4 CONDITIONS TO AVOID**

Excessive heat, open flame, other ignition sources.

**10.5 INCOMPATIBLE MATERIALS**

Caustics, acids, oxidizers, fluorine, metals.

**10.6 HAZARDOUS DECOMPOSITION PRODUCTS**

May include but are not limited to oxides of carbon, hydrogen chloride, hydrogen fluoride, oxides of nitrogen, ammonia, oxides of phosphorus, oxides of sulfur, hydrogen sulfide.

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**11. TOXICOLOGICAL INFORMATION**

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**11.1 LIKELY ROUTES OF EXPOSURE**

Eye contact.

LC<sub>50</sub> (rat): > 5 mg/L (4 HR)

LD<sub>50</sub> Oral (rat): > 5,000 mg/kg

LD<sub>50</sub> Dermal (rabbit): > 2,000 mg/kg

Acute Toxicity Estimates: No data available

Skin Irritation (rabbit): Irritating.

Eye Irritation (rabbit): Serious eye irritation.

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

Aspiration: No data available

Skin Sensitization (mouse): Not a sensitizer

Carcinogenicity: No data available

Germ Cell Mutagenicity: No data available

Interactive Effects: None known



**12. ECOLOGICAL INFORMATION**

**12.1 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. Extremely toxic to fish and aquatic invertebrates.

**Ecotoxicological Data**

	Species	Test Results
Product		
Urea	Daphnia magna	3,910 mg/l 96-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.

**13. DISPOSAL CONSIDERATIONS**

**13.1 WASTE TREATMENT METHODS**

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Paper and plastic bags: Do not reuse or refill empty bag. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill, or by incineration, or, by burning. Do not burn unless allowed by state or local authorities. If burned, stay out of smoke. Do not contaminate water, food, or feed by storage or disposal.

**14. TRANSPORT INFORMATION**

**14.1 LAND TRANSPORT**

DOT Shipping Description: NOT REGULATED.

U.S. Surface Freight Classification: FERTILIZING COMPOUNDS (MANUFACTURED FERTILIZERS), NOI, DRY (NMFC 68140, SUB 5; CLASS 50)

**15. REGULATORY INFORMATION**

**15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS**

**NFPA & HMIS Hazard Ratings:**

NFPA		HMIS	
1 Health	0 Least	1 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 Y      Fire N      Sudden Release of Pressure N  
Delayed N      Reactive N



**Reportable Quantity (RQ) under U.S. CERCLA:** Not listed  
**SARA, Title III, Section 313:** Bifenthrin (CAS: 82657-04-3)  
**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.

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

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**16. OTHER INFORMATION**

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**SDS STATUS:** All sections reviewed; change in format  
**PREPARED BY:** Registrations and Regulatory Affairs      **REVIEWED BY:** Environmental Health and Safety  
*®Signature is a registered trademark of Loveland Products Inc.*  
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*XCU is a trademark of Koch Agronomic Services, LLC.*  
**EPA REG. NO.:** 279-3223-34704

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