# MATERIAL SAFETY DATA SHEET SIGNATURE® DIMENSION* 0.17 PLUS 20-0-20 FERTILIZER WITH 50% XCU™

***FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300***

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**FORMULATED FOR:**

LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286

**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

**PRODUCT NAME:** SIGNATURE® DIMENSION* 0.17 PLUS 20-0-20 FERTILIZER WITH 50% XCU™
**CHEMICAL NAME:** Herbicide (Dithiopyr: 3,5-pyridinecarbothioic acid,2-(difluoromethyl)-4-(2-methylpropyl)-6-(trifluoromethyl)-S,S dimethyl ester) on N-P-K Fertilizer
**CHEMICAL FAMILY:** Pyridine Herbicide-Fertilizer Combination
**EPA REG. NO.:** 62719-485-34704
**MSDS Number:** 62719485-10-LPI **MSDS Revisions:** New **Date of Issue:** 01/15/10 **Supersedes:** New

## 2. HAZARDS IDENTIFICATION SUMMARY

**KEEP OUT OF REACH OF CHILDREN – CAUTION –** Causes eye irritation. Harmful if inhaled. Avoid contact with eyes or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Prolonged or frequently repeated skin contact while handling this material may cause allergic reaction in some individuals. Avoid contact with skin, eyes, open cuts, or sores. In case of contact, flush with water. Get medical attention for eyes. The fertilizer in this product is derived from Polymer Coated Sulfur Coated Urea, Urea, and Muriate of Potash. Nausea and vomiting could be expected upon large dose ingestion. The acute ingestive effects are described as nausea, chills, and diarrhea. Eye or skin contact with these products could cause irritation (particularly in sensitive persons), and respiratory irritation could be expected from the unprotected inhalation of fertilizer dusts. Product users should avoid prolonged or repeated skin contact by wearing impervious gloves, long sleeve shirt, long pants, socks and rubber boots. Goggles for eye protection are recommended. Wash thoroughly after handling and using this product.
This product is a multi-colored granule with slight odor.

## 3. COMPOSITION, INFORMATION ON INGREDIENTS

| Chemical Ingredients: | Percentage by Weight: | CAS No. | TLV (Units) |
|---|---|---|---|
| Dithiopyr | 0.17 | 97886-45-8 | not listed |
| Total Nitrogen (N) | 20.00 | Mixture | not listed |
| Soluble Potash ($K_2O$) | 20.00 | Mixture | not listed |
| Fertilizer salts and inert ingredients | 59.83 | | |

## 4. FIRST AID MEASURES

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing. 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.
**HOT LINE NUMBER:** Have the product container or label with you when calling a poison control center, or doctor, or when going for treatment. You may also contact 1-800-992-5994 day or night, for emergency treatment information.

## 5. FIRE FIGHTING MEASURES

**FLASH POINT (°F/Test Method):** Not applicable
**FLAMMABLE LIMITS (LFL & UFL):** Not applicable
**EXTINGUISHING MEDIA:** Considered non-combustible, use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.
**HAZARDOUS COMBUSTION 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.
**SPECIAL FIRE FIGHTING PROCEDURES:** Use water spray to cool containers exposed to fire. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Dusts or vapors can travel to a sources of ignition and flash back.

## 6. ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**
Avoid breathing dusts. 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.
**CAUTION:** Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

## 7. HANDLING AND STORAGE

**HANDLING:** Users should 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 as soon as possible after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
**STORAGE:** Store this product only in its original labeled container in a dry, cool secured storage area. Do not contaminate water, food or feed by storage or disposal.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Not normally required.
**RESPIRATORY PROTECTION:** Not normally required, if vapors or dusts exceed acceptable levels, wear a NIOSH approved pesticide respirator.
**EYE PROTECTION:** Chemical goggles or shielded safety glasses.
**SKIN PROTECTION:** Wear protective clothing: long-sleeved shirts and pants, hat, rubber boots with socks. Wear rubber or chemical-resistant gloves.

| | **OSHA PEL 8 hr TWA** | **ACGIH TLV-TWA** |
|---|---|---|
| Nuisance Particulates | 15 mg/m$^3$ (total dust) | not listed |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE AND ODOR:** Multi-colored granules with slight odor
**SOLUBILITY:** Insoluble
**SPECIFIC GRAVITY (Water = 1):** 0.72 – 1.04 g/ml
**BULK DENSITY:** 45 - 65 lbs/ft$^3$
**pH:** Not applicable
**VAPOR PRESSURE:** Not applicable
**BOILING POINT:** Not applicable
**PERCENT VOLATILE (by volume):** Not applicable
**EVAPORATION RATE:** Not applicable
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

**STABILITY:** Stable
**CONDITIONS TO AVOID:** Excessive heat, open flame, other ignition sources.
**INCOMPATIBILITY:** Caustics, acids, oxidizers, fluorine, metals.
**HAZARDOUS DECOMPOSITION PRODUCTS:** None known.
**HAZARDOUS POLYMERIZATION:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Acute Oral $LD_{50}$ (rat):** (technical material) 1050 mg/kg
**Acute Dermal $LD_{50}$ (rabbit):** >5000 mg/kg
**Eye Irritation (rabbit):** Causes eye irritation
**Skin Irritation (rabbit):** May cause irritation
**Inhalation $LC_{50}$ (rat):** Not established.
**Skin Sensitization (guinea pig):** Not established
**Carcinogenic Potential:** None listed in OSHA, NTP, IARC or ACGIH

## 12. ECOLOGICAL INFORMATION

This pesticide is toxic to fish. Do not apply directly to water, or to area where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent areas. Do not contaminate water when cleaning equipment or disposing of equipment wash water.
Do not apply when weather conditions favor drift from target area. Drift or runoff may adversely affect non-target plants.

## 13. DISPOSAL CONSIDERATIONS

**Pesticide Disposal:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of on in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures. **Container Handling:** Non-refillable container. Do not reuse or refill container. Offer for recycling if available, or dispose of empty bag in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## 14. TRANSPORT INFORMATION

**DOT Shipping Description:** NOT REGULATED BY USDOT.
**U.S. Surface Freight Classification:** FERTILIZING COMPOUNDS (MANUFACTURED FERTILIZERS), NOI; DRY (NMFC 50320, SUB 5; CLASS 50)

## 15. REGULATORY INFORMATION

**NFPA & HMIS Hazard Ratings**:

| NFPA | | HMIS | |
|---|---|---|---|
| 1 | Health | 1 | Health |
| 0 | Flammability | 0 | Flammability |
| 0 | Instability | 0 | Reactivity |
| | | H | PPE |

| | |
|---|---|
| 0 | Least |
| 1 | Slight |
| 2 | Moderate |
| 3 | High |
| 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:** Not listed
**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.

## 16. OTHER INFORMATION

**MSDS STATUS:** New

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental/ Regulatory Services

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**Dimension is a trademark of Dow AgroSciences LLC*

*XCU is a trademark of Agrium Advanced Technologies*

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