

# MATERIAL SAFETY DATA SHEET

# SIGNATURE® DIMENSION\* 0.19 PLUS FERTILIZER

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:** 1-800-301-7976  
**U.S. Coast Guard National Response Center:** 1-800-424-8802

**PRODUCT NAME:** SIGNATURE® DIMENSION\* 0.19 PLUS FERTILIZER  
**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.:** 62719-488-34704  
**MSDS Number:** 62719488-06-LPI      **MSDS Revisions:** New      **Date Of Issue:** 10/18/06      **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. This product is a multi-colored granule with slight odor.

## 3. COMPOSITION, INFORMATION ON INGREDIENTS (Note: See Product Label for Guaranteed Analysis)

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Dithiopyr	0.19	97886-45-8	None Established
Fertilizer: see label for N-P-K analysis	99.81		

## 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.

	<b>OSHA PEL 8 hr TWA</b>	<b>ACGIH TLV-TWA</b>
Nuisance Particulates	15 mg/m <sup>3</sup> (total dust)	not listed

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>APPEARANCE AND ODOR:</b> Multi-colored granules with slight odor	<b>BULK DENSITY:</b> 64.333 lbs/ft <sup>3</sup>	<b>SOLUBILITY:</b> Insoluble
<b>SPECIFIC GRAVITY (Water = 1):</b> 1.0305 g/ml	<b>BOILING POINT:</b> Not applicable	<b>pH:</b> Not applicable
<b>VAPOR PRESSURE:</b> Not applicable	<b>EVAPORATION RATE:</b> Not applicable	
<b>PERCENT VOLATILE (by volume):</b> 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  
**INCOMPATIBILITY:** Caustics, acids, oxidizers, fluorine, metals.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** None known.  
**HAZARDOUS POLYMERIZATION:** Will not occur.

**CONDITIONS TO AVOID:** Excessive heat, open flame, other ignition sources.

**11. TOXICOLOGICAL INFORMATION**

<b>Acute Oral LD<sub>50</sub> (rat):</b> (technical material) 1050 mg/kg	<b>Acute Dermal LD<sub>50</sub> (rabbit):</b> >5000 mg/kg
<b>Eye Irritation (rabbit):</b> Causes eye irritation	<b>Skin Irritation (rabbit):</b> May cause irritation
<b>Inhalation LC<sub>50</sub> (rat):</b> Not established.	<b>Skin Sensitization (guinea pig):</b> Not established
<b>Carcinogenic Potential:</b> 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**

Do not reuse empty bag. Completely empty bag into application equipment. Then 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. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water, food or feed by storage or disposal.

**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**

<b>NFPA &amp; HMIS Hazard Ratings:</b>	NFPA		HMIS
	1 Health	0 Least	1 Health
	0 Flammability	1 Slight	0 Flammability
	0 Instability	2 Moderate	0 Reactivity
		3 High	H PPE
		4 Severe	

**MATERIAL SAFETY DATA SHEET**

**SIGNATURE® DIMENSION\* 0.19 PLUS FERTILIZER**

**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

*®Signature is a registered trademark of Loveland Products, Inc.*

*\*Dimension is a trademark of Dow AgroSciences LLC*

**Note:** *This material safety data sheet applies to all Signature® N-P-K fertilizer analyses containing 0.19% Dimension.*

**Disclaimer and Limitation of Liability:** This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and LOVELAND PRODUCTS, INC. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.