

MATERIAL SAFETY DATA SHEET

Ferti Technologies

Emergency Phone: 800-363-1330
Ferti Technologies Inc.
560 Rheaume
St-Michel, QC Canada J0L 2J0

Dimension[®] ON FERTILIZER

Effective Date: 12-03-2013

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: 19-0-4 25% UFLEXX[™] with Dimension[®] 0.1%
Herbicide

COMPANY IDENTIFICATION:

Ferti Technologies 560 Rheaume
St-Michel, QC Canada J0L 2J0

2. COMPOSITION/INFORMATION ON INGREDIENTS:

Dithiopyr:	CAS # 097886-45-8	0.06- 0.25%
S,S'-dimethyl 2-(difluoromethyl-4-(2-methylpropyl)-6-(trifluoromethyl)-3,5-pyridinedicarbothioate		
Other Ingredients, Total, Including		99.75-99.94%
Silica-Quartz (sand)		0 -30.00%
Fluoride Salts as Fluorine		0 - 1.30%
Fertilizers-Nitrates		0 -50.00%

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

3. HAZARDOUS IDENTIFICATIONS:

EMERGENCY OVERVIEW

Multi-colored solid granules. May cause eye irritation. Toxic to aquatic organisms.

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POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

EYE: May cause eye irritation.

SKIN: Prolonged exposure is not likely to cause significant skin irritation. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The dermal LD₅₀ has not been determined. Dithiopyr did not cause allergic skin reactions when tested in guinea pigs.

INGESTION: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. Single dose oral LD₅₀ has not been determined. Based on information for the components, the oral LD₅₀ for rats is expected to be >5000 mg/kg.

INHALATION: At room temperature, exposure to vapor is minimal due to low volatility; single exposure is not likely to be hazardous.

EFFECTS OF OVEREXPOSURE: Long-term inhalation of dust concentrations higher than recommended PEL may cause delayed lung injury. The free silica mentioned in Section 2. is sand and little or none is present in the respirable size range.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS:

Dithiopyr, in animals, effects have been reported on the following organs: blood, kidney, liver, thyroid, adrenal gland and gall bladder.

CANCER INFORMATION: Dithiopyr did not cause cancer in laboratory animals.

TERATOLOGY: Dithiopyr did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

REPRODUCTIVE EFFECTS: In animal studies, dithiopyr has not been shown to interfere with reproduction.

4. FIRST AID:

EYE: Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

SKIN: Wash skin with plenty of water.

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 the poison control center or doctor. Never give anything by mouth to an unconscious person.

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INHALATION: Move person to fresh air; if effects occur, consult a physician.

HANDLING: Do not handle material near food, feed or drinking water.

NOTE TO PHYSICIAN: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

STORAGE TEMPERATURE (MIN/MAX): None

SHELF LIFE: Not noted

5. FIRE FIGHTING MEASURES:

SPECIAL SENSITIVITY: Not noted

FLASH POINT: Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

FLAMMABLE LIMITS: Not applicable

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

EXTINGUISHING MEDIA: Spread out and cool, apply water if necessary.

EXPOSURE GUIDELINES: None established.

FIRE & EXPLOSION HAZARDS: If heated to decomposition, the fertilizer contained in this product will give off toxic vapors of ammonia and formaldehyde. Under fire conditions, urea may decompose to cyanuric acid, biuret or ammonia. Dispersion of fine dust in the air may form an explosive mixture.

ENGINEERING CONTROLS: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

FIRE-FIGHTING EQUIPMENT: Use self-contained breathing apparatus with enclosed fires.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

6. ACCIDENTAL RELEASE MEASURES:

EYE/FACE PROTECTION: If high dust concentrations exist, tight fitting goggles are recommended.

ACTION TO TAKE FOR SPILLS/LEAKS: If uncontaminated, sweep or collect and use as product. If contaminated, collect in suitable containers.

SKIN PROTECTION: No precautions other than clean body-covering clothing should be needed.

WASTE DISPOSAL METHOD: Contaminated material should be disposed of in accordance with applicable local, State and Federal regulations.

RESPIRATORY PROTECTION: If dust concentrations exceed recommended PEL, use NIOSH-approved dust respirators with approval TC-21C-xxx.

7. HANDLING AND STORAGE:

APPLICATORS AND ALL OTHER HANDLERS: Refer to the product label for personal protective clothing and equipment.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

STORAGE: Store in a cool dry area designated specifically for pesticides. Do not store near any material intended for use or consumption by humans or animals.

9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE: Multi-colored solid granules

ODOR: None

BOILING POINT: Not applicable

MELTING POINT: 65°C (149°F) (for dithiopyr)

VAPOR PRESSURE: Negligible

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VAPOR DENSITY: Not applicable
SOLUBILITY IN WATER: 1.38ppm@20°C(68°F)(dithiopyr)
SPECIFIC GRAVITY: No data
PERCENT VOLATILITY: 0%
pH: Not applicable
VISCOSITY: Not applicable
EVAPORATION RATE: Not applicable

Material is inherently biodegradable. Reaches more than 20% biodegradation in OECD test(s) for inherent biodegradability.
Based largely or completely on information for the silica.
Biodegradation is not applicable.

10. STABILITY AND REACTIVITY:

STABILITY: This is a stable material.

INCOMPATIBILITY: Alkalis, heat. Alkalis may cause ammonia release.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION:

MUTAGENICITY: For the components tested, in-vitro and animal mutagenicity studies were negative.

12. ECOLOGICAL INFORMATION:

ENVIRONMENTAL FATE:

MOVEMENT & PARTITIONING:

Based largely or completely on information for the dipropylene glycol.
Bioconcentration potential is low (BCF is <100 or Log Pow <3).
Based largely or completely on information for the silica.
Partitioning from water to n-octanol is not applicable.

DEGRADATION & PERSISTENCE:

Based largely or completely on information for the dipropylene glycol.
Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

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ECOTOXICOLOGY:

Based largely or completely on information for the active ingredient.

Material is highly toxic to aquatic organisms on an acute basis (LC₅₀ or EC₅₀ is between 0.1 and 1 mg/L in the most sensitive species tested).

Material is practically non-toxic to birds on an acute basis (LD₅₀ is >2000 mg/kg).

Material is practically non-toxic to birds on a dietary basis (LC₅₀ is >5000 ppm).

Based largely or completely on information for the dipropylene glycol.

Material is practically non-toxic to aquatic organisms on an acute basis (LC₅₀ or EC₅₀ is >1000 mg/L in the most sensitive species tested).

Based largely or completely on information for the silica.
Not expected to be acutely toxic to aquatic organisms.

13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHOD: Follow container label instructions for disposal of wastes generated during use in compliance with product label. In other situations, bury in an EPA approved landfill or burn in an incinerator approved for pesticide destruction. Do not reuse container.

14. TRANSPORT INFORMATION:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION:

TECHNICAL SHIPPING NAME: Dithiopyr

FREIGHT CLASS BULK: Fertilizing compounds, NOI

FREIGHT CLASS PACKAGE: Fertilizing compounds, NOI

PRODUCT LABEL: Not noted

PROPER SHIPPING NAME: Not hazardous or regulated

HAZARD CLASS OR DEVISION: Non-regulated

15. REGULATORY INFORMATION:

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific

information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

U.S. REGULATIONS

SARA 313 INFORMATION: To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard
A delayed health hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

STATE RIGHT-TO-KNOW: This product is not known to contain any substances subject to the disclosure requirements of New Jersey and Pennsylvania.

OSHA HAZARD COMMUNICATION STANDARD: This product is hazardous as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND): To the best of our knowledge, this product contains no chemical subject to reporting under CERCLA.

16. OTHER INFORMATION:

MSDS STATUS: New