

**FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL DAY OR NIGHT 1-800-561-8273 or CHEMTREC – DAY OR NIGHT 1 800-424-9300**

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

**1.1 PRODUCT IDENTIFIER:**

**TRADE NAME:** LOVELAND VITAFLO® FUNGICIDE

**1.2 RECOMMENDED USE:** GROUP 7 | M FUNGICIDE

**1.3 MANUFACTURED FOR:**

LOVELAND PRODUCTS CANADA, INC.  
789 Donnybrook Drive • Dorchester, Ontario N0L 1G5

**1.4 24 Hour Emergency Phone:** 1-800-561-8273 - **Additional Emergency Phone (Canutec):** 1-613-996-6666 (Collect)

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

|                             |             |      |
|-----------------------------|-------------|------|
| Acute Toxicity – Oral       | Category 4  | H302 |
| Acute Toxicity – Inhalation | Category 4  | H332 |
| Acute Toxicity – Dermal     | Category 4  | H312 |
| Eye Damage/Irritation       | Category 2B | H320 |
| Aquatic Toxicity            | Category 2  | H401 |

**2.2 Label elements**



Signal word: WARNING  
 Hazard Statement: H302 – Harmful if swallowed.  
 H332 – Harmful if inhaled.  
 H312 – Harmful in contact with skin.  
 H320 – Causes eye irritation.  
 H401 – Toxic to aquatic life.

Precautionary Statement: (Prevention):  
 P264 – Wash hands and face thoroughly after handling.  
 P270 – Do not eat, drink or smoke when using this product.  
 P280 – Wear protective gloves/protective clothing/eye protection/face protection.  
 P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P271 – Use only outdoors or in a well-ventilated area.

Precautionary Statement: (Response):  
 P301+P312: IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.  
 P330 – Rinse mouth.  
 P304+P340: IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.  
 P312: Call a POISON CENTRE or doctor/physician if you feel unwell.  
 P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
 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 – If eye irritation persists: Get medical advice/attention.  
 P321: Specific treatment (see Precautions and Toxicological Information on this label).  
 P362 – Take off contaminated clothing and wash it before reuse.

Precautionary Statement: (Storage):  
 P402+P404 – Store in a dry place. Store in a closed container.



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Precautionary  
Statement:  
(Disposal):

P501 – Dispose of contents/container to an approved waste disposal plant.

### 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

| Chemical Name: | CAS No.   | Classification  | Concentration [%] |
|----------------|-----------|---|-------------------|
| Carboxin       | 5234-68-4 | Inh. tox. 4; H332   | 15.59             |
| Thiram         | 137-26-8  | Oral tox. 4; H302<br>Dermal tox.; 4 H312<br>Eye dam/irrit; 2B; H320<br>Aquatic tox. 2; H401 | 13.25             |

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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 swallowed:** Call a poison control centre 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 centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

**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 centre or doctor for 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 centre 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 centre or doctor for further treatment advice.

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

Symptoms: Harmful if swallowed. Harmful if inhaled. Harmful in contact with skin. Causes eye irritation.

### 4.3 Immediate Medical Attention and Special Treatment

Treatment: **NOTES TO PHYSICIAN:** Contains petroleum distillate. Vomiting may cause aspiration pneumonia. There is no specific antidote. Treat symptomatically

**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-561-8273**

Take container, label or product name with you when seeking medical attention.



**5. FIRE FIGHTING MEASURES**

- 5.1 EXTINGUISHING MEDIA:**  
 Suitable Extinguishing Media: Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide (CO<sub>2</sub>), foam, water spray or fog.
- 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:**  
 Specific Hazards During Firefighting: Oxides of carbon and other unknown hazardous materials may be formed in a fire situation.
- 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 inhalation of vapours and spray mist and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing. Remove all sources of ignition.
- 6.2 ENVIRONMENTAL PRECAUTIONS**  
 Environmental Precautions: This product is toxic to fish and aquatic invertebrates. 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 cleaning equipment or disposing of equipment washwater 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: Do not use, pour, spill or store near heat or open flame.  
 Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them. 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 original container in a secured dry storage area. Prevent cross-contamination with other pesticides and fertilizers. 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  |
|------------|------|--|
| Thiram     | TWA  | 0.05 mg/m <sup>3</sup> IFV (Measured as Inhalable fraction and vapour) |
- U.S. Workplace Exposure Level (OSHA) PELs**
- | Components  | Type | Value |
|-------------|------|-------|
| No listings | TWA  |       |
- Biological limit values**
- ACGIH Biological Exposure Indices**
- | Components  | Value | Specimen |
|-------------|-------|----------|
| No listings |       |          |



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### 8.2 EXPOSURE CONTROLS:

#### Engineering Measures

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's website at [www.croplife.ca](http://www.croplife.ca).

#### 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 barrier laminate or viton. Socks and chemical-resistant footwear.

Respiratory Protection: In case of inadequate ventilation or risk of inhalation of mists or vapors, use suitable respiratory equipment approved by MSHA/NIOSH. Wear respiratory protection during operations where spraying or misting occurs. If respirators are used, a program should be in place to assure compliance with national or provincial standards. 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:   | Sweet.                    |
| ODOR THRESHOLD:                                 | No data available.        |
| COLOR:  | Pink.                     |
| pH:   | 7.8 (neat)                |
| MELTING POINT / FREEZING POINT:                 | -20°C / -4°F              |
| BOILING POINT:                                  | No data available         |
| FLASH POINT:                                    | No data available.        |
| 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:                                      | No data available.        |
| SPECIFIC GRAVITY (Water = 1):                   | 1.1170 g/ml               |
| DENSITY:  | 9.32 lbs./gal / 1.12 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

Temperature extremes, direct sunlight, and freezing.

### 10.5 INCOMPATIBLE MATERIALS

Strong bases, acids, and oxidizers.

### 10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of carbon and other unknown hazardous materials may be formed in a fire situation.



**11 TOXICOLOGICAL INFORMATION**

**11.3 LIKELY ROUTES OF EXPOSURE**

Eyes. Skin. Ingestion. Inhalation.  
**LC<sub>50</sub> (rat):** >1.0 mg/L (4H)  
**LD<sub>50</sub> Oral (female rat):** 4,587 mg/kg.  
**LD<sub>50</sub> Dermal (rat):** > 2,000 mg/kg.  
**Acute Toxicity Estimates:** No data available.  
**Eye Irritation (rabbit):** Minimal irritant.  
**Skin Irritation (rabbit):** Slight irritant.  
**Inhalation:** Harmful if inhaled.  
**Ingestion:** Harmful if swallowed.  
**Specific Target Organ Toxicity:** Liver, kidney, gastrointestinal, and muscle effects from overexposure.  
**Aspiration:** No data available.  
**Skin Sensitization (guinea pig):** Not a sensitizer  
**Carcinogenicity:** None listed.  
**Germ Cell Mutagenicity:** No data available.  
**Interactive Effects:** None known.

**12 ECOLOGICAL INFORMATION**

**12.3 ECOTOXICITY**

The pesticide is toxic to fish and aquatic invertebrates.

**Ecotoxicological Data**

|        | <b>Species</b> | <b>Test Results</b>                  |
|--------|----------------|--------------------------------------|
| Thiram | Rainbow trout  | 3.60 mg/L – 96-hour LC <sub>50</sub> |
|        | Bluegill       | 0.13 mg/L – 96-hour LC <sub>50</sub> |
|        | Daphnia magna  | 0.21 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: Persistent and will carry over.

**12.3 BIOACCUMULATIVE POTENTIAL**

Bioaccumulation: Low potential for accumulation.

**12.4 MOBILITY IN SOIL**

Low mobility.

**12.5 OTHER ADVERSE EFFECTS**

Assessment: No data available.

**13 DISPOSAL CONSIDERATIONS**

**13.1 WASTE TREATMENT METHODS**

**For recyclable containers: DO NOT** reuse the container for any other purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site: Triple-or pressure-rinse the empty container. Dispose of rinsate in accordance with provincial requirements. Make the rinsed container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

**For refillable containers:** For disposal, the container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse the product container for any other purpose

**14 TRANSPORT INFORMATION**

**14.3 LAND TRANSPORT**

**TDG Shipping Description:** NOT REGULATED.

**U.S. Surface Freight Classification:** INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS, NOI, OTHER THAN POISON (NMF 102120; CLASS: 60)



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**15 REGULATORY INFORMATION**

**15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS**

**NFPA & HMIS Hazard Ratings:**

NFPA

HMIS

|                |            |                |
|----------------|------------|----------------|
| 1 Health       | 0 Least    | 1 Health       |
| 1 Flammability | 1 Slight   | 1 Flammability |
| 0 Instability  | 2 Moderate | 0 Reactivity   |
|                | 3 High     | B PPE          |
|                | 4 Severe   |                |

**SARA Hazard Notification/Reporting**

|  |           |          |          |          |                            |          |
|--|-----------|----------|----------|----------|----------------------------|----------|
| <b>SARA Title III Hazard Category:</b> | Immediate | <u>Y</u> | Fire     | <u>Y</u> | Sudden Release of Pressure | <u>N</u> |
|  | Delayed   | <u>Y</u> | Reactive | <u>N</u> |                            |          |

**Reportable Quantity (RQ) under U.S. CERCLA:** Not listed.  
**SARA, Title III, Section 313:** Not listed.  
**RCRA Waste Code:** Not applicable.  
**CA Proposition 65:** Not applicable.  
**WHMIS [Canada]:** Pest control products are not controlled under WHMIS. Classified D2B

**16 OTHER INFORMATION**

**SDS STATUS:** Format revision.

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental Health and Safety

**PEST CONTROL PRODUCTS ACT REG. NO.:** 30380

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