

IN CASE OF EMERGENCY DUE TO A MAJOR SPILL, FIRE OR POISONING INVOLVING THIS PRODUCT CALL DAY OR NIGHT, 1-800-

561-8273 or CHEMTREC 1-800-424-9300

## 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

### MANUFACTURED FOR:

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

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

**CHEMICAL IDENTITY:** Trifluralin:  $\alpha, \alpha, \alpha$ -trifluoro-2, 6-dinitro-*N, N*-dipropyl-*p*-toluidine

**PRODUCT USE:** Herbicide – Group 3

**PCP REG. NO.:** 28289

**MSDS Number:** 28289-12-LPI

**MSDS Revisions:** Sections 1, 4

**Date of Issue:** 09/12/12

**Supersedes:** 03/20/10

## 2. HAZARDS IDENTIFICATION SUMMARY

**KEEP OUT OF REACH OF CHILDREN – WARNING - POISON** – Causes moderate eye injury. Harmful if swallowed. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Avoid contact with eyes, skin or clothing.

**NOTE TO PHYSICIAN:** BONANZA 480 contains naphthalene, which has been determined to be a possible human carcinogen (Group 2B). Trifluralin is not anticipated to be a carcinogenic risk to humans. Pre-existing skin disorders may be aggravated by exposure. This product is a clear, deep orange liquid with aromatic odour.

## 3. COMPOSITION, INFORMATION ON INGREDIENTS

| <u>Chemical Ingredients:</u>             | <u>Percentage by Weight:</u> | <u>CAS No.</u> | <u>TLV (Units)</u>   |
|--|------------------------------|----------------|----------------------|
| Trifluralin                              | 43.00 / 480 g/L              | 1582-09-8      | none established     |
| Inert Ingredients, including Naphthalene | 57.00                        | 91-20-3        | 50 mg/m <sup>3</sup> |

## 4. FIRST AID MEASURES

- If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have a 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.
- If in eyes:** Hold eye open and rinse slowly and gently with water 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.
- If on skin or clothing:** 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.
- 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.

**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-561-8273.** Have the product label or container with you when calling a poison control center or doctor, or going for treatment.

## 5. FIRE FIGHTING MEASURES

- FLASH POINT (°F/Test Method):** >210°F / >98°C (PMCC)
- FLAMMABLE LIMITS (LFL & UFL):** LFL: 1.8%; UFL: 11.8% (Based on the solvent)
- EXTINGUISHING MEDIA:** Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog. May emit toxic fumes. Wear self-contained breathing apparatus and full protective gear.
- HAZARDOUS COMBUSTION PRODUCTS:** Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog. May emit toxic fumes. Wear self-contained breathing apparatus and full protective gear.
- SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained breathing apparatus with full protective clothing. Fight fire from upwind and keep all non-essential personnel out of area.
- UNUSUAL FIRE AND EXPLOSION HAZARDS:** If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Do not allow water runoff to enter nearby streams, ponds or lakes. Keep containers cool with water spray to avoid possible explosion due to internal pressure buildup.

## 6. ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

In case of leak or spill, contain by absorbing spilled liquid with clay or other absorbent material; scoop or sweep up material and place in a container for possible land application according to label use or for proper disposal. Wash the spill area with water containing a strong detergent. Check local, state and federal regulations for proper disposal.

**CAUTION:** Keep spills and cleaning runoff from flowing onto adjacent land, or into municipal sewers and open bodies of water.

**7. HANDLING AND STORAGE**

**HANDLING:** Wash hands after handling, and 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. See section 8 for PPE. Keep away from children.

**STORAGE:** Avoid freezing. Do not store below 40°F/4.5°C. Store in a safe manner. Store in original container only. Keep container tightly closed when not in use. Do not use or store near heat or open flame. Do not contaminate water, food or feed by storage or disposal.

**Personal Protective Equipment: Applicators and other handlers must wear:** long sleeved shirt and long pants, chemical resistant gloves such as barrier laminate or Viton® and shoes plus socks. Follow manufacturer’s instructions for cleaning and maintaining PPE. If no instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets with requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**RESPIRATORY PROTECTION:** Not normally required, if vapors exceed acceptable levels, wear a MSHA/NIOSH approved pesticide respirator with cartridges for pesticide vapors.

**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> |
| Naphthalene | 50 mg/m <sup>3</sup>     | 52 mg/m <sup>3</sup> |

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE AND ODOUR:** Clear, deep orange liquid with aromatic odour.

**SPECIFIC GRAVITY (Water = 1):** 1.12 g/ml

**VAPOUR PRESSURE:** <1 mm Hg @ 68°F/20°C

**PERCENT VOLATILE (by volume):** Not established

**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.

**BULK DENSITY:** 1.12 kg/L

**BOILING POINT:** (solvent) 450 - 527°F (232 - 275°C)

**EVAPORATION RATE:** Not established

**SOLUBILITY:** Emulsifies

**pH:** 5.8 – 6.5 (1% solution)

**10. STABILITY AND REACTIVITY**

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Excessive heat and avoid freezing.

**INCOMPATIBILITY:** Strong oxidizers..

**HAZARDOUS DECOMPOSITION PRODUCTS:** Oxides of nitrogen and carbon, fluorinated compounds, and/or other asphyxiants and unknown hazardous materials may be formed in a fire situation.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**11. TOXICOLOGICAL INFORMATION**

**Acute Oral LD<sub>50</sub> (rat):** 3738 mg/kg

**Eye Irritation (rabbit):** Causes moderate eye injury

**Inhalation LC<sub>50</sub> (male rat):** >5.59 mg/L (4 HR).

**Carcinogenic Potential:** Naphthalene has been determined to be a possible human carcinogen (Group 2B) by IARC; not classifiable as a human carcinogen by ACGIH; and possible human carcinogen with further research needed by US EPA.

**Acute Dermal LD<sub>50</sub> (rabbit) :** >5000 mg/kg

**Skin Irritation (rabbit):** Causes slight irritation

**Skin Sensitization (Guinea Pig):** Sensitizer

**12. ECOLOGICAL INFORMATION**

This pesticide is extremely toxic to freshwater marine and estuarine fish and aquatic invertebrates including shrimp and oyster. 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 apply in a manner that will directly expose canals, lakes streams, ponds, marshes or estuaries to aerial drift. Do not contaminate water when disposing of equipment wash water. Do not apply when weather conditions favor drift from target area.

**13. DISPOSAL CONSIDERATIONS**

Do not reuse containers for any purpose. This product is acutely hazardous. Container is recyclable, and is to be disposed of at a container collection site. Contact your local dealer/distributor for the location of the nearest collection site. Before taking container to the collection site: Triple or pressure-rinse the empty container, adding the rinsate to the spray tank. Make the empty 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 information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Do not contaminate water, food, or feed by storage or disposal.

**14. TRANSPORT INFORMATION**

**TDG Shipping Description:** NOT REGULATED (Packages will bear USDOT markings and labels)

**DOT/TDG Shipping Description:** RQ ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, UN3082, III (TRIFLURALIN) ERG GUIDE 171

**U.S. Surface Freight Classification:** COMPOUND, TREE OR WEED KILLING, NOI (NMFC 50320, SUB 2: CLASS 60)

**IMDG Shipping Description:** NOT REGULATED (Packages will bear USDOT markings and labels)

**15. REGULATORY INFORMATION**

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

**SARA Hazard Notification/Reporting**

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

**Reportable Quantity (RQ) under U.S. CERCLA:** Trifluralin (CAS: 1582-09-8) 10 lbs.

**SARA, Title III, Section 313:** Trifluralin (CAS: 1582-09-8) 43.0% [TRI Threshold 100 lbs.]; Naphthalene (CAS: 91-20-3) 7.0%

**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:** Sections 1 and 4 revised

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental Health and Safety

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