

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: REAPER® 0.15EC

CHEMICAL NAME: Abamectin: a mixture of avermectins consisting primarily of Avermectin B_{1a} and Avermectin B_{1b}

CHEMICAL FAMILY: Glycoside Insecticide

EPA REG. NO.: 34704-923

MSDS Number: 000923-13-LPI

MSDS Revisions: Sections 8, 14, 15

Date of Issue: 04/30/13

Supersedes: 03/05/09

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – WARNING - AVISO – Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle (If you do not understand the label, find someone to explain it to you in detail.) May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Harmful if inhaled or absorbed through the skin. Avoid breathing spray mist. Avoid contact with skin. Prolonged or frequently repeated exposure may cause allergic skin reactions in some individuals.

This product is a yellow to red brown liquid with undetermined odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

| <u>Chemical Ingredients:</u> | <u>Percentage by Weight:</u> | <u>CAS No.</u> | <u>TLV (Units)</u> |
|------------------------------|------------------------------|---------------------------|---------------------|
| Abamectin | 2.00 | 65195-56-4 and 65195-55-3 | Not Established |
| Other Ingredients, including | 98.00 | | |
| Butylated hydroxytoluene | | 128-37-0 | 2 mg/m ³ |
| n-Methylpyrrolidone | | 872-50-4 | Not Established |

4. FIRST AID MEASURES

| | |
|--------------------------------|--|
| If swallowed: | 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 a poison control center or doctor. |
| 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 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. |
| NOTE TO PHYSICIAN: | Early signs of intoxication include dilation of pupils, muscular incoordination, and muscular tremors. Toxicity following accidental ingestion of this product can be minimized by early administration of chemical adsorbents (e.g., activated charcoal). If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms, and measurements. In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since abamectin is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, and valproic acid) in patients with potentially toxic abamectin exposure. |

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565. Have the product label or container with you when calling a poison control center or doctor, or going for treatment.

5. FIRE FIGHTING MEASURES

| | |
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| FLASH POINT (°F/Test Method): | 161°F / 71.7°C (TCC) |
| FLAMMABLE LIMITS (LFL & UFL): | Not established |
| EXTINGUISHING MEDIA: | Considered combustible, use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog. |
| HAZARDOUS COMBUSTION PRODUCTS: | Can decompose at high temperature and release toxic gases. |
| 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: | Vapors can travel to sources of ignition and flash back. |

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Avoid breathing vapors. Dike area to prevent contamination of water bodies. Absorb liquid spills with clay or other suitable absorbent. Sweep up absorbed liquids and place in containers for proper disposal. Decontaminate spill area with a soda ash solution, followed by soap and water; absorb cleaning solution with absorbent and place in containers for proper 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: 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. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Store in a tightly closed container in a cool, dry place and avoid excess heat. Do not use or store near heat or open flame. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Ventilation should be sufficient enough to keep exposure below any applicable TLVs.

RESPIRATORY PROTECTION: Not normally required, if vapors or mists exceed acceptable levels, wear a MSHA/NIOSH approved pesticide respirator that has been properly fit-tested.

EYE PROTECTION: Chemical goggles or shielded safety glasses.

SKIN PROTECTION: Wear protective clothing: coveralls over short-sleeved shirts and short pants, chemical-resistant gloves, and chemical-resistant footwear.

| | OSHA PEL 8 hr TWA | ACGIH TLV-TWA |
|--------------------------|-------------------|---------------------|
| Butylated hydroxytoluene | None established | 2 mg/m ³ |

Personal Protective Equipment (PPE): Applicators and other handlers must wear: coveralls worn over short sleeved shirt and short pants, chemical-resistant gloves – EPA chemical-resistance category B (e.g. barrier laminate or butyl rubber ≥ 14 mils), chemical resistant footwear plus socks, protective eyewear, chemical-resistant headgear for overhead exposure, chemical-resistant apron when cleaning equipment, mixing, or loading. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

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|--|--|
| APPEARANCE AND ODOR: Yellow to red brown liquid with undetermined odor. | SOLUBILITY: Dispersible |
| SPECIFIC GRAVITY (Water = 1): 0.96 g/ml | BULK DENSITY: 8.01 lbs/gal. |
| VAPOR PRESSURE: 7.50 x 10 ⁻⁸ @ 25°C (a.i.) | BOILING POINT: Not available |
| PERCENT VOLATILE (by volume): Not applicable | EVAPORATION RATE: Not available |

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: None known.

INCOMPATIBILITY: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Can decompose at high temperature and release toxic gases.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

| | |
|--|---|
| Acute Oral LD₅₀ (rat): ~300 mg/kg | Acute Dermal LD₅₀ (rabbit): >1800 mg/kg |
| Eye Irritation (rabbit): Moderately irritating | Skin Irritation (rabbit): Moderately irritating |
| Inhalation LC₅₀ (rat): 3.50 mg/L (4 HR.) | Skin Sensitization (guinea pig): Sensitizer |

Carcinogenic Potential: None listed in OSHA, NTP, or ACGIH. IARC classified Butylated hydroxytoluene as a Group 3 carcinogen: not classifiable as human carcinogen with limited animal evidence.

12. ECOLOGICAL INFORMATION

This pesticide is toxic to fish and wildlife. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from target areas. Do not contaminate water when disposing of equipment wash water or rinsate. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Use of this product may pose a risk to threatened and endangered species of fish, amphibians, crustaceans (including fresh water shrimp), and insects. All use of this product in the state of California should comply with the recommendations of the California Endangered Species Project. Before using this product in California, consult with your county agriculture commissioner to determine use limitations that apply to your area.

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instruction, contact your State Pesticide or Environmental Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. **CONTAINER DISPOSAL: Non-refillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrcycle.org. If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Do not contaminate water, food or feed by storage or disposal.

14. TRANSPORT INFORMATION

DOT Shipping Description: UN2902, PESTICIDE, LIQUID, TOXIC, N.O.S. (ABAMECTIN), 6.1, III ERG GUIDE 151

U.S. Surface Freight Classification: INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS, NOI, OR VERMIN EXTERMINATORS, ANIMAL OR POULTRY, NOI; POISON (NMFC 102100; CLASS: 77.5)

15. REGULATORY INFORMATION

| NFPA & HMIS Hazard Ratings: | | NFPA | HMIS |
|-----------------------------|--|----------------|----------------|
| | | 2 Health | 0 Least |
| | | 2 Flammability | 1 Slight |
| | | 0 Instability | 2 Moderate |
| | | | 3 High |
| | | | 4 Severe |
| | | | 2 Health |
| | | | 2 Flammability |
| | | | 0 Reactivity |
| | | | D PPE |

SARA Hazard Notification/Reporting

SARA Title III Hazard Category: Immediate Y Fire Y Sudden Release of Pressure N
Delayed Y Reactive N

Reportable Quantity (RQ) under U.S. CERCLA: Not listed

SARA, Title III, Section 313: N-Methylpyrrolidone (CAS: 872-50-4) ±30.00%

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.

WARNING – This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

16. OTHER INFORMATION

MSDS STATUS: Sections 8, 14, and 15 revised

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

Restricted Use Pesticide (Toxic to Fish, Mammals and Aquatic Organisms)

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