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: PROTOCOL™
CHEMICAL NAME: Thiophanate-methyl: (dimethyl[(1,2-phenylene)-bis(minocarbonothioyl)]bis(carbamate); Propiconazole: 1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl][methyl]-1H-1,2,4-triazole
CHEMICAL FAMILY: Fungicide
EPA REG. NO.: 34704-1064
MSDS Number: 001064-12-LPI
MSDS Revisions: New
Date of Issue: 04/18/12
Supersedes: New

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION: Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Wear protective eyewear. Harmful if swallowed. Harmful if inhaled. Harmful if absorbed through skin. Avoid breathing vapor or spray mist. Remove and wash contaminated clothing before reuse.

This product is off-white, viscous liquid with faint odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Ingredients: Percentage by Weight: CAS No.: TLV (Units)
Thiophanate-methyl 23.70 23564-05-8 not listed
Propiconazole 7.10 60207-90-1 not listed
Other Ingredients 69.20

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 do so. Do not induce vomiting unless told to do so by the 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 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 inhaled: Move person to fresh air. If person is not breathing, call 911, or call an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. 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.

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

FLASH POINT (°F/Test Method): >212.0°F / >100.0°C
FLAMMABLE LIMITS (LFL & UFL): Not applicable
EXTINGUISHING MEDIA: Dry chemical or carbon dioxide for small fires. Foam or water spray recommended for large fires.
HAZARDOUS COMBUSTION PRODUCTS: May include but are not limited to hydrogen chloride and oxides of nitrogen and carbon.
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: If water is used to fight fire, contain runoff, by using dikes to prevent contamination of water supplies.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and place in a chemical waste container. Flush residual spill area with water. Large spills that soak into the ground should be dug up, placed in metal drums and disposed of in accordance with instructions provided under DISPOSAL, Section 13 of this MSDS. Contact appropriate state agency when considering a land spreading disposal option. Leaking containers should be separated from non-leakers and either the container or its contents transferred to a drum or other non-leaking container and disposed of in accordance with instructions provided under DISPOSAL, Section 13 of this MSDS. Any recovered spilled liquid should be similarly collected and disposed of. 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: Do not get in eyes, on skin or on clothing. Avoid contact with skin. Wear protective eyewear (goggles, face shield or safety glasses). 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.

STORAGE: Store in original container in secured dry storage area. Prevent cross contamination with other pesticides and fertilizers. Do not contaminate water, food, or feed by storage or disposal.

Personal Protective Equipment: All handlers (mixers, loaders and applicators, or individuals performing one or more of these tasks must wear: long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves, such as nitrile or butyl rubber > 14 mils, chemical-resistant apron, for all mixers and loaders and other handlers exposed to the concentrate. Remove and wash contaminated clothing before reuse. Follow manufacturer’s instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard any other absorbent materials that have been drenched or heavily contaminated with this product’s concentrate. Do not reuse them.

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 or mists 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, shoes with socks. Wear chemical-resistant gloves.

OSHA PEL 8 hr TWA ACGIH TLV-TWA
Not listed Not listed

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Off-white, viscous liquid with faint odor
SOLUBILITY: Soluble
SPECIFIC GRAVITY (Water = 1): 1.138 g/ml
BULK DENSITY: 9.50 lbs/gal.
PH: 6.20
VAPOR PRESSURE: Not established
BOILING POINT: Not established
PERCENT VOLATILE (by volume): Not established
EVAPORATION RATE: 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.

10. STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID: Excessive heat, open flame, other ignition sources.
INCOMPATIBILITY: Strong oxidizing agents: acids and bases.
HAZARDOUS DECOMPOSITION PRODUCTS: Under fire conditions hydrogen chloride and oxides of nitrogen and carbon may be produced.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (female rat): 3,129 mg/kg
Eye Irritation (rabbit): Minimally irritating
Inhalation LC₅₀ (male rat): >2.08 mg/L (4-hr); FIFRA Category IV
Carcinogenic Potential: Not listed in OSHA, NTP, ACGIH, or IARC.

Acute Dermal LD₅₀ (rat): >5,000 mg/kg
Skin Irritation (rabbit): Slightly irritating
Skin sensitization (guinea pig): Not a sensitizer

12. ECOLOGICAL INFORMATION

This pesticide is toxic to fish and shrimp. 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 disposing of equipment wash waters or rinsate. Refer to product labeling for use restrictions to protect endangered species.
13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Nonrefillable 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.acrecycle.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. For packages up to 5 gallons: 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 ¾ full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing 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. For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the remaining contents into application equipment or a mix tank or store rinsate for later use or disposal. 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. For packages greater than 56 gallons: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. For refillable containers: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY USDOT
U.S. Surface Freight Classification: INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS, NOI, OTHER THAN POISON (NMFC 102120; CLASS: 60)

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:  
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SARA, Title III, Section 313: Thiophanate-methyl (CAS: 23564-05-8); Propiconazole (CAS: 60207-90-1)
RCRA Waste Code: Thiophanate-methyl: U409;  
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

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