

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:** DYNA-SHIELD® SMALL GRAINS FUNGICIDE

**CHEMICAL NAME:** Tebuconazole: Alpha-[2-(4-chlorophenyl)ethyl]-alpha-(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol; Metalaxyl: N-(2,6-dimethylphenyl)-N-(methoxyacetyl)alanine methyl ester]

**CHEMICAL FAMILY:** Fungicide

**EPA REG. NO.:** 34704-933

**MSDS Number:** 000933-09-LPI

**MSDS Revisions:** Sections 1, 4, 13

**Date of Issue:** 03/09/09

**Supersedes:** 05/09/08

## 2. HAZARDS IDENTIFICATION SUMMARY

**KEEP OUT OF REACH OF CHILDREN – CAUTION** – Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist.

This product is red liquid with faint odor.

## 3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Tebuconazole	0.48	107534-96-3	not listed
Metalaxyl	0.64	57837-19-1	not listed
Inert Ingredients	98.88		

## 4. FIRST AID MEASURES

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.

**Note to Physician:** No specific antidote is available. Treat the patient symptomatically. **Symptoms of exposure:** The compound does not cause any definite symptoms that would be diagnostic. Contact with eyes may cause mild irritation. Harmful if swallowed. May cause respiratory tract irritation.

## 5. FIRE FIGHTING MEASURES

**FLASH POINT (°F/Test Method):**

>212°F / >100°C (PMCC)

**FLAMMABLE LIMITS (LFL & UFL):**

None established

**EXTINGUISHING MEDIA:**

Carbon dioxide (CO<sub>2</sub>), dry chemical, foam, or water spray.

**HAZARDOUS COMBUSTION PRODUCTS:**

heating or fire can release toxic gases.

**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 and cool the containers, contain run-off by diking to prevent contamination of water supplies. Containers in fire may burst or explode from excessive heat.

## 6. ACCIDENTAL RELEASE MEASURES

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

Control the spill at its source. Contain the spill to prevent it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water. Clean up spills immediately. Cover entire spill with absorbent material such as sand, silica gel, acid binder, universal binder, or sawdust, scrape up and place into compatible disposal containers. Scrub the spill area with water and detergent. Pick up wash liquid with additional absorbent and place into disposal container. Once all material is cleaned up and placed in a disposal container, seal the container(s) and handle in an approved manner. 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 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:

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Do not contaminate water, food or feed by storage and disposal, or by cleaning of equipment.

**Personal Protective Equipment: Applicators and other handlers must wear:** long sleeved shirt, long pants, 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:** Maintain exposure levels below exposure limits through the use of general and local exhaust ventilation. Use product in accordance with product labeling and with the requirements listed in the Worker Protection Standard (WPS), 40CFR Part 170.

**RESPIRATORY PROTECTION:** Not normally required, if vapors or mists exceed acceptable levels, wear a NIOSH approved respirator.

**EYE PROTECTION:** Chemical splash goggles.

**SKIN PROTECTION:** Wear protective clothing: long-sleeved shirt and long pants, and shoes plus socks. Wear rubber or chemical-resistant gloves.

1,2-Propanediol	<b>OSHA PEL 8 hr TWA</b> not listed	<b>AIHA WEELs*</b> 10 mg/m <sup>3</sup>
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**9. PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE AND ODOR:** Red liquid with faint odor.

**SPECIFIC GRAVITY (Water = 1):** 1.04 g/ml

**VAPOR PRESSURE:** Not established

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

**BULK DENSITY:** 8.68 lbs/gal.

**BOILING POINT:** Not established

**EVAPORATION RATE:** Not established

**SOLUBILITY:** Miscible

**pH:** 6.5 – 8.5 (undiluted)

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.

**INCOMPATIBILITY:** Oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Oxides of carbon and oxides of nitrogen.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**CONDITIONS TO AVOID:** Excessive heat and fire.

**11. TOXICOLOGICAL INFORMATION**

**Acute Oral LD<sub>50</sub> (male rat):** >5,050 mg/kg

**Eye Irritation (rabbit):** Not an irritant

**Inhalation LC<sub>50</sub> (rat):** >2.8 mg/L (4 hr).

**Acute Dermal LD<sub>50</sub> (rabbit):** >5,050 mg/kg

**Skin Irritation (rabbit):** Not an irritant

**Skin Sensitization (guinea pig):** Not a sensitizer

**Carcinogenic Potential:** None listed in OSHA, NTP, ACGIH, or IARC. EPA classifies Tebuconazole as a Group C (possible human carcinogen) chemical based on liver tumors. The Agency used a non-linear methodology approach for determining the Margin of Exposure (MOE) for the estimation of cancer risk. Therefore, EPA has a reasonable certainty that no harm will result from exposure to residues of Tebuconazole.

**Target Organs:** Spleen, liver, adrenals, and lens of the eye.

**12. ECOLOGICAL INFORMATION**

This pesticide product is highly toxic to fish, estuarine and marine 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 disposing of equipment washwaters. Cover or incorporate spilled treated seeds. **Groundwater advisory:** Metalaxyl is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of the chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**13. DISPOSAL CONSIDERATIONS**

**PESTICIDE DISPOSAL:** This pesticide's wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. 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 HANDLING: 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 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](http://www.acrecycle.org). If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, 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 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. **(For packages greater than 5 gallons or 50 lbs:) 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 rinsate 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 square bottom caged totes greater than 55 gals:) Triple rinse or 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. Fill the container about ¼ full with water, rinsing down all sides inside the container thoroughly. Recirculate water with the pump for 2 minutes. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this 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)

**Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.**

**15. REGULATORY INFORMATION**

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

**SARA Hazard Notification/Reporting**

<b>SARA Title III Hazard Category:</b>	Immediate	<u>  N  </u>	Fire	<u>  N  </u>	Sudden Release of Pressure	<u>  N  </u>
	Delayed	<u>  N  </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 listed

**CA Proposition 65:** Not listed.

**16. OTHER INFORMATION**

**MSDS STATUS:** Sections 1, 4, and 13 revised

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental/ Regulatory Services

**This is a seed treatment product and contains 0.039 pounds Tebuconazole and 0.051 pounds Metalaxyl per U.S. Gallon.**

*®Dyna-Shield is a registered trademark of Loveland Products, Inc.*

\*American Industrial Hygiene Association Workplace Environmental Exposure Levels

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