

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® FOOHOLD® VIROCK™  
**CHEMICAL NAME:** Imidacloprid: 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine  
 Metalaxyl: N-(2,6-dimethylphenyl)-N-(methoxyacetyl)alanine methyl ester]  
 Tebuconazole: Alpha-[2-(4-chlorophenyl)ethyl]-alpha-(1,1-dimethyl-ethyl)-1H-1,2,4-triazole-1-ethanol  
 Fludioxonil: 4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile

**CHEMICAL FAMILY:** Group 3-4-12 Fungicide - Group 4A Insecticide

**EPA REG. NO.:** 34704-1090

**SDS Number:** 001090-14-LPI

**SDS Revisions:** New

**Date of Issue:** 05/06/14

**Supersedes:** New

## 2. HAZARDS IDENTIFICATION SUMMARY

**KEEP OUT OF REACH OF CHILDREN – CAUTION / PRECAUCIÓN** – 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.) Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

This product is a red-colored liquid suspension 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>
Imidacloprid	11.16	138261-41-3	not listed
Metalaxyl	0.60	57837-19-1	not listed
Tebuconazole	0.45	107534-96-3	not listed
Fludioxonil	0.36	131341-86-1	not listed
Other Ingredients, including Glycerin	87.43	56-81-5	15 mg/m <sup>3</sup>

## 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. 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 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 by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT, CALL: **1-866-944-8565**. 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°F / >100°C (this is an aqueous formulation)

**FLAMMABLE LIMITS (LFL & UFL):** None established

**EXTINGUISHING MEDIA:** Carbon dioxide (CO<sub>2</sub>), dry chemical, or foam.

**HAZARDOUS COMBUSTION PRODUCTS:** Heating or fire may produce oxides of carbon and nitrogen.

**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 spill immediately. Cover entire spill with absorbent material such as sand, diatomaceous earth, or other compatible absorbent material 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:** Store in a cool place. **Do NOT** store in direct sunlight. Protect from freezing temperatures. 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, shoes plus socks, chemical resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride (PVC), Viton®). Follow manufacturer's instructions for cleaning/maintaining PPE. If no such 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: coveralls over short-sleeved shirt and short pants, socks and chemical-resistant footwear. Wear rubber or chemical-resistant gloves.

	OSHA PEL 8 hr TWA	ACGIH TLVs
Glycerin	15mg/m <sup>3</sup> / 5mg/m <sup>3</sup>	Not listed
	Total Dust / Respirable Fraction	

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE AND ODOR:** Red-colored liquid suspension with faint odor.

**SPECIFIC GRAVITY (Water = 1):** 1.077 g/ml

**VAPOR PRESSURE:** Not established

**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:** 8.97 lbs./gal.

**BOILING POINT:** Not established

**EVAPORATION RATE:** Not established

**SOLUBILITY:** Dispersible

**pH:** 7.67 (1% solution)

**10. STABILITY AND REACTIVITY**

**STABILITY:** Stable.

**CONDITIONS TO AVOID:** Extreme heat. Do not store near heat or open flame.

**INCOMPATIBILITY:** Strong acids, strong bases, oxidizing agents, potassium permanganate.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Can decompose at high temperatures forming oxides of nitrogen, oxides of carbon, and hydrogen chloride.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**11. TOXICOLOGICAL INFORMATION**

**Acute Oral LD<sub>50</sub> (female rat):** > 2,000 mg/kg

**Eye Irritation (rabbit):** Minimally irritating

**Inhalation LC<sub>50</sub> (rat):** > 2.06 mg/L (4 hr).

**Carcinogenic Potential:** None listed in OSHA, NTP, IARC, or ACGIH.

**Acute Dermal LD<sub>50</sub> (rat):** > 5,000 mg/kg

**Skin Irritation (rabbit):** Slightly irritating

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

**12. ECOLOGICAL INFORMATION**

This pesticide is highly toxic to birds and aquatic invertebrates. This pesticide is toxic to fish. For terrestrial uses, 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. Exposed treated seeds may be hazardous to birds. Cover or incorporate spilled treated seeds.

Imidacloprid is highly toxic to bees. Ensure that planting equipment is functioning properly in accordance with manufacturer specifications to minimize seed coat abrasion during planting to reduce dust which can drift to blooming crops or weeds.

**Groundwater Advisory:** Metalaxyl is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**Ecotoxicity:**

## Data on Imidacloprid Technical:

96-hour LC <sub>50</sub> Rainbow Trout:	211 mg/l
48-hour EC <sub>50</sub> Daphnia:	85 mg/l
48-hour Honey Bee Oral LD <sub>50</sub> :	0.0039 µg/bee
48-hour Honey Bee Contact LD <sub>50</sub> :	0.078 µg/bee

Japanese Quail Oral LD <sub>50</sub> :	31 mg/kg
Bobwhite Quail Oral LD <sub>50</sub> :	152 mg/kg
House Sparrow Oral LD <sub>50</sub> :	41 mg/kg

## Data on Metalaxyl Technical:

96-hour LC <sub>50</sub> Bluegill:	139 mg/l
96-hour LC <sub>50</sub> Rainbow Trout:	132 mg/l
48-hour EC <sub>50</sub> Daphnia:	29 mg/l

Bobwhite Quail 8-day Dietary LC <sub>50</sub> :	>10,000 ppm
Mallard Duck Oral LD <sub>50</sub> :	1,466 mg/kg

## Data on Tebuconazole Technical:

96-hour LC <sub>50</sub> Bluegill Sunfish:	5.7 ppm
96-hour LC <sub>50</sub> Rainbow Trout:	4.4 ppm
48-hour LC <sub>50</sub> Daphnia Magna:	4.0 ppm

Bobwhite Quail 8-day Dietary LC <sub>50</sub> :	1,988 mg/kg
Mallard Duck 8-day Dietary LC <sub>50</sub> :	>4,816 ppm

## Data on Fludioxonil Technical:

96-hour LC <sub>50</sub> Bluegill Sunfish:	0.74 ppm
96-hour LC <sub>50</sub> Rainbow Trout:	0.47 ppm
48-hour LC <sub>50</sub> Daphnia Magna:	0.90 ppm

Bobwhite Quail Oral LD <sub>50</sub> :	>5,200 ppm
Mallard Duck 8-day Dietary LC <sub>50</sub> :	>5,200 ppm
48-hour Honey Bee Contact LD <sub>50</sub> :	>25 µg/bee

**13. DISPOSAL CONSIDERATIONS**

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**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.acrecycle.org](http://www.acrecycle.org). 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.

**For packages greater than 5 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. Empty the rinsate into application

**For refillable containers:** Refill the container with pesticide only. Do not reuse the 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 the 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. Do not contaminate water, food or feed by storage or disposal.

**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**

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**

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

**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.

**CAUTION** — 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**

**SDS STATUS:** New

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental Health and Safety

**This is a seed treatment product and contains 1.00 pound Imidacloprid per gallon; 0.05 pounds Metalaxyl per gallon; 0.04 pounds Tebuconazole per gallon; and 0.03 pounds Fludioxonil per gallon.**

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