

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

- 1.1 **PRODUCT IDENTIFIER:** EPA REGISTRATION NO. 34704-1090
TRADE NAME: DYNA-SHIELD® FOOHOLD® VIROCK®
- 1.2 **RECOMMENDED USE:** GROUP 3 | 4 | 12 FUNGICIDE – GROUP 4A INSECTICIDE SEED TREATMENT
- 1.3 **SUPPLIER DETAILS:**
LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286
- 1.4 **24 Hour Emergency Phone:** 1-800-424-9300 - **Medical Emergencies:** 1-866-944-8565 – **Product Information:** 1-888-574-2878 (LPI-CUST)
U.S. Coast Guard National Response Center: 1-800-424-8802

2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****Classification according to 29 CFR 1910.1200**

Acute Toxicity – Oral	Category 4	H302
Environmental Hazard	Category 2	H411

2.2 Label elements

Signal word: WARNING
Hazard Statement: H302 – Harmful if swallowed.
H411 – Toxic to aquatic life with long lasting effects.

Precautionary Statement: P264 – Wash thoroughly after handling.
(Prevention): P270 – Do not eat, drink or smoke when using this product.

Precautionary Statement: P301+P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
(Response): P330 – Rinse mouth.

Precautionary Statement: (Storage): Not required.

Precautionary Statement: (Disposal): Dispose of contents in accordance with local, state and federal regulations.

2.3 Other hazards

None known



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3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

Classification according to 29 CFR 1910.1200

Chemical Name:	CAS No.	Concentration [%]
Imidacloprid	138261-41-3	10.6 – 11.8
Metalaxyl	57837-19-1	0.54 - 0.66
Tebuconazole	107534-96-3	0.40 – 0.50
Fludioxonil	131341-86-1	0.32 – 0.40
Glycerin	56-81-5	3.9 – 4.2
Proprietary ingredients	Trade Secret	Trade Secret
Other ingredients		69.87 – 71.68

Ingredients not precisely identified are proprietary or non-hazardous.

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

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

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Harmful if swallowed.

4.3 Immediate Medical Attention and Special Treatment

Treatment: **NOTES TO PHYSICIAN:** No specific antidote is available. Treat symptomatically.
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

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide (CO₂), foam.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.



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6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Avoid inhalation of mists and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: 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 when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate. Cover or incorporate spilled treated seeds. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Contain the spill at its source. Contain the spill to prevent spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions in section 8. Cover entire spill with absorbing material and place into a compatible disposal container. Scrub the area with a hard water detergent. Pick up wash liquid with additional absorbent and place into a compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them. 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.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: 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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS

U.S. Workplace Exposure Level (AIHA) WEELs (Workplace Environmental Exposure Levels)

Components	Type	Value
No listings		

U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
Glycerin	TWA	5 mg/m ³ (Respirable fraction) - Mist 15 mg/m ³ (Total dust) - Mist

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen
No listings		



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8.2 EXPOSURE CONTROLS:

Engineering Measures

Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.
Skin Protection: Long-sleeved shirt and long pants. Chemical-resistant gloves. Shoes plus socks.
Respiratory Protection: In case of inadequate ventilation or risk of inhalation of mists or vapors, use suitable respiratory equipment approved by MSHA/NIOSH. Wear respiratory protection during operations where spraying or misting occurs. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE : Liquid.
ODOR: Mild.
ODOR THRESHOLD: No data available.
COLOR: Red.
pH: 6.65 (1% solution)
MELTING POINT / FREEZING POINT: Not applicable.
BOILING POINT: No data available.
FLASH POINT: Not applicable.
FLAMMABILITY (solid, gas): Not applicable.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available.
VAPOR PRESSURE: No data available.
SOLUBILITY: Dispersible.
PARTITION CO-EFFICIENT, n-OCTANOL / WATER: No data available.
AUTO-IGNITION TEMPERATURE: No data available.
DECOMPOSITION TEMPERATURE: No data available.
VISCOSITY: 496 cPs @ 25 °C | 404 cPs @ 41 °C.
SPECIFIC GRAVITY (Water = 1): 1.065 g/ml
DENSITY: 8.89 lbs/gal / 1.06 kg/L

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

10.1 REACTIVITY

Stable

10.2 CHEMICAL STABILITY

Stable under normal temperature conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No data available. Will not polymerize.

10.4 CONDITIONS TO AVOID

Excessive heat, extreme cold, direct sunlight.

10.5 INCOMPATIBLE MATERIALS

Strong oxidizing agents: acids and bases; potassium permanganate.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Under fire conditions may produce gases such as hydrogen chloride, oxides of carbon and oxides of nitrogen.



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11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Dermal, Inhalation, Eye contact.
LC₅₀ (rat): > 5.14 mg/L (4H)
LD₅₀ Oral (female rat): 1,750 mg/kg
LD₅₀ Dermal (rabbit): > 5,000 mg/kg.
Acute Toxicity Estimates: No data available.
Eye Irritation (rabbit): Minimal eye irritation.
Skin Irritation (rabbit): Slight skin irritation.
Inhalation: Harmful if inhaled.
Ingestion: Harmful if swallowed.
Specific Target Organ Toxicity: No data available.
Aspiration: No data available.
Skin Sensitization (guinea pig): Not a sensitizer
Carcinogenicity: Not a carcinogen.
Germ Cell Mutagenicity: No data available.
Interactive Effects: None known.

12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY

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 washwaters. Exposed treated seeds may be hazardous to birds. Cover or incorporate spilled treated seeds.
 This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Ecotoxicological Data

	Species	Test Results
Imidacloprid Technical	Rainbow Trout	211 mg/l – 96-hour LC ₅₀
	Daphnia Magna	85 mg/l – 48-hour EC ₅₀
	Honey Bee	0.0039 µ/bee – 48-hour Oral LD ₅₀ 0.078 µ/bee – 48-hour Contact LD ₅₀
	Japanese Quail	31 mg/kg – Oral LD ₅₀
	Bobwhite Quail	152 mg/kg – Oral LD ₅₀
	House Sparrow	41 mg/kg – Oral LD ₅₀
Metalaxyl Technical	Bluegill Sunfish	139 mg/l – 96-hour LC ₅₀
	Rainbow Trout	132 mg/l – 96-hour LC ₅₀
	Daphnia Magna	29 mg/l – 48-hour EC ₅₀
	Bobwhite Quail	>10,000 ppm – 8-day Dietary LC ₅₀
	Mallard Duck	1,466 mg/kg – LD ₅₀
Tebuconazole Technical	Bluegill Sunfish	5.7 ppm – 96-hour LC ₅₀
	Rainbow Trout	4.4 ppm – 96-hour LC ₅₀
	Daphnia Magna	4.0 ppm – 48-hour EC ₅₀
	Bobwhite Quail	1,988 mg/kg – Oral LD ₅₀
	Mallard Duck	>4,816 ppm – 8-day Dietary LC ₅₀
Fludioxonil Technical	Bluegill Sunfish	0.74 ppm – 96-hour LC ₅₀
	Rainbow Trout	0.47 ppm – 96-hour LC ₅₀
	Daphnia Magna	0.90 ppm – 48-hour EC ₅₀
	Bobwhite Quail	>5200 ppm – 8-day Oral LD ₅₀
	Mallard Duck	>5200 ppm – 8-day Dietary LC ₅₀
	Honey Bee	>25 µ/bee – 48-hour Contact LD ₅₀

Drift or runoff may adversely affect non-target plants.
 Do not apply directly to water.
 Do not contaminate water when disposing of equipment wash water.
 Do not apply when weather conditions favor drift from target area.



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12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: Not rapidly biodegradable.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

12.4 MOBILITY IN SOIL

Low to moderate mobility.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13 DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water, food or feed by storage or disposal.

CONTAINER HANDLING: A. 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. 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. **(B. 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. **(C. For packages greater than 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. **(D. For refillable containers:)** Refill 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

14.3 LAND TRANSPORT

DOT Shipping Description: NOT REGULATED BY DOT.

U.S. Surface Freight Classification: INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS; NOI; OTHER THAN POISON (NMFC 102120; CLASS: 60)

15 REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

NFPA & HMIS Hazard Ratings:

NFPA

1 Health
1 Flammability
0 Instability

HMIS

1 Health
1 Flammability
0 Reactivity
B PPE



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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.

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. Following is the hazard information as required on the pesticide label:

CAUTION

Harmful if swallowed.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

16 OTHER INFORMATION

SDS STATUS: Format revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

EPA REG. NO.: 34704-1090

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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