

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. 34704-1085
TRADE NAME: DYNA-SHIELD® FM
- 1.2 **RECOMMENDED USE:** SEED TREATMENT FOR PROTECTION OF SEED AND SEEDLINGS
- 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
STOT (Repeated Exposure)	Category 2	H373

Environmental Hazards

Toxic to aquatic life.	Category 2	H401
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2.2 Label elements



Signal word: WARNING
 Hazard Statement: H302 – Harmful if swallowed.
 H373 – May cause damage to organs through prolonged or repeated exposure.
 H401 – Toxic to aquatic life.

Precautionary Statement: (Prevention): P264 – Wash thoroughly after handling.
 P270 – Do not eat, drink or smoke when using this product.
 P260 – Do not breathe dust/fume/gas/mist/vapors/spray.

Precautionary Statement: (Response): P301+P312 – IF SWALLOWED: Call a poison center/doctor/physician if you feel unwell.
 P330 – Rinse mouth.
 P314 – Get medical advice/attention if you feel unwell.

Precautionary Statement: (Storage): Not applicable or required.

Precautionary Statement: (Disposal): P501 – Dispose of contents/container 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 [%]
Metalaxyl	57837-19-1	14.25 – 15.75
Fludioxonil	131341-86-1	2.24 – 2.48
Glycerin	56-81-5	3.80 – 4.20
*Other ingredients		79.71 – 77.57

*Ingredients not specifically listed are non-hazardous and are to be considered proprietary or confidential business information per 29 CFR 1910.1200(i)

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 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.
- 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.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Eyes: Eye irritation.
Oral: Harmful if swallowed.
Skin: Dermal irritation.
Inhalation: Respiratory irritation.

4.3 Immediate Medical Attention and Special Treatment

Treatment: If necessary, treat for respiratory distress, itchy skin, skin irritation, or eye irritation.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565

Have the product container or label with you when calling a poison control center, or going for treatment.

NOTES TO PHYSICIAN: Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.



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5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

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

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: Oxides of nitrogen and oxides of carbon may be formed in a fire situation.

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.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Avoid inhalation of vapors and spray mist 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. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by disposing of equipment washwater.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. After removal flush contaminated area thoroughly with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to Remove residual contamination. Never return spills to original containers for re-use.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe 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.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Store only in original container in locked storage areas. If a spill occurs, visible puddles or drops should be covered with a dry absorbent such as clay, sawdust, lime or soda ash. Sweep up and dispose of in a permitted disposal facility. Avoid cross-contamination with other pesticides and fertilizers during handling and storage. Do not store near heat or open flame. Do not store near oxidizing agents. Protect from temperatures below 0 °F. Not for use or storage in or around the home.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS

U.S. Workplace Exposure Level (ACGIH) TLVs

Components	Type	Value
Glycerin Mist	TWA TLV	10 mg/m ³

U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
Glycerin Mist	TWA	15 mg/m ³ (Total Dust) 5 mg/m ³ (Respirable Fraction)

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen
No listings		



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8.2 EXPOSURE CONTROLS:

Engineering Measures

When handlers use closed systems in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.
Skin Protection: Long-sleeved shirt and long pants. Shoes plus socks.
Respiratory Protection: Not normally required, if vapors or dusts exceed acceptable levels, wear a MSHA/NIOSH approved dust mist filtering respirator with any N, R, P, or HE filter. 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: 6.49 (1% w/w solution).
MELTING POINT / FREEZING POINT: No data available
BOILING POINT: No data available
FLASH POINT: No data available.
FLAMMABILITY (solid, gas): No data available.
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 (kinematic): No data available.
SPECIFIC GRAVITY (Water = 1): 1.068 g/ml
DENSITY: 8.91 lbs/gal | 1.07 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. Do not store near heat or open flame.

10.5 INCOMPATIBLE MATERIALS

Strong oxidizing agents: bases and acids.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Hydrogen chloride, oxides of carbon and oxides of nitrogen or other asphyxiants may be formed from incomplete combustion.



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11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Ingestion. Skin Contact. Eye contact. Inhalation

LC₅₀ (rat): > 5.04 mg/L (4 HR)

LD₅₀ Oral (female rat): 1,750 mg/kg

LD₅₀ Dermal (rat): > 5,000 mg/kg

Acute Toxicity Estimates: No data available

Skin Irritation (rabbit): Slightly irritating.

Eye Irritation (rabbit): Mildly irritating.

Specific Target Organ Toxicity: Repeated overexposure may affect the liver and kidney.

Aspiration: No data available

Skin Sensitization (guinea pig): Not a sensitizer

Carcinogenicity: No data available.

Germ Cell Mutagenicity: No data available

Interactive Effects: None known

12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY

The product is toxic to fresh water and estuarine/marine fish.

Ecotoxicological Data

	Species	Test Results
Metalaxyl	Bluegill	>139 mg/l – 96-hour LC ₅₀
	Rainbow trout	> 130 mg/l – 96-hour LC ₅₀
	Daphnia Magna	121 mg/l – 48-hour EC ₅₀
Fludioxonil	Bluegill	>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
	Honey bee	> 25 µ/bee – 48-hour 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.

12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: No data available

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available

12.4 MOBILITY IN SOIL

No data available

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13 DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be used according to instructions on product label, contact your State Pesticide or Environmental Control Agency for guidance. Do not contaminate water, food or feed by storage or disposal.



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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

2 Health	0 Least
0 Flammability	1 Slight
0 Instability	2 Moderate
	3 High
	4 Severe

HMIS

2 Health
0 Flammability
0 Reactivity
B PPE

SARA Hazard Notification/Reporting

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

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 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

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