

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:**
TRADE NAME: **DYNA-SHIELD® IMIDACLOPRID 5**
- 1.2 **RECOMMENDED USE:** FOR SEED TREATMENT TO PROTECT SEED OF LISTED CROPS AGAINST LISTED PESTS
- 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
Acute Toxicity - Dermal	Category 4	H312
Acute Toxicity – Inhalation	Category 4	H332
Aquatic Toxicity	Category 1	H400

2.2 Label elements



- Signal word: **WARNING**
- Hazard Statement:
H302 – Harmful if swallowed
H312 – Harmful in contact with skin.
H332 – Harmful if inhaled.
H400 – Very toxic to aquatic life.
- Precautionary Statement: (Prevention):
P264 – Wash hands and face thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.
P271 – Use only outdoors or in a well-ventilated area.
- Precautionary Statement: (Response):
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 – Rinse mouth.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P312 – Call a POISON CENTER or doctor/physician if you feel unwell.
P321 – Specific treatment (see FIRST AID on the product label).
P362 – Take off contaminated clothing and wash before reuse.
P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 – Call a POISON CENTER or doctor/physician if you feel unwell.
- Precautionary Statement: (Storage):
P401 – Store in a cool place.
P410 – Protect from sunlight.
- Precautionary Statement: (Disposal):
P501 – Dispose of contents/container to an approved waste disposal plant.

2.3 Other hazards
None known



SAFETY DATA SHEET

SDS NUMBER: 000940-16-LPI

SDS REVISIONS: FORMAT

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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.	Classification	Concentration [%]
Imidacloprid	138261-41-3	Oral tox; 4; H302 Dermal tox. 4; H312	48.70
Other ingredients, includes Propylene Glycol	57-55-6	Inh. tox; 4; H332 Aquatic tox; 1; H400	51.30 4.75 – 5.25

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 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 or doctor for further treatment advice,

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Harmful if swallowed. Harmful if inhaled.

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: 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. Cover or incorporate spilled treated seeds. This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are foraging. This product is highly toxic to birds and aquatic invertebrates. 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.

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
Propylene Glycol	TWA	10 mg/m ³

U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
No listings	TWA	

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 suspension
ODOR: Faint.
ODOR THRESHOLD: No data available.
COLOR: Off-white.
pH: 6.29 (1% dispersion)
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: Miscible.
PARTITION CO-EFFICIENT, n-OCTANOL / WATER: No data available.
AUTO-IGNITION TEMPERATURE: No data available.
DECOMPOSITION TEMPERATURE: No data available.
VISCOSITY: 27.1 cP @ 25°C.
SPECIFIC GRAVITY (Water = 1): 1.26 g/ml
DENSITY: 10.51 lbs/gal / 1.26 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 and extreme cold.

10.5 INCOMPATIBLE MATERIALS

None known.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of carbon, hydrogen chloride, hydrogen cyanide, and oxides of nitrogen.



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11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Ingestion, Dermal, Inhalation.

LC₅₀ (rat): > 0.63 mg/L (4H) [based on a similar product]

LD₅₀ Oral (rat): > 2,000 mg/kg [based on a similar product].

LD₅₀ Dermal (rabbit): > 2,000 mg/kg [based on a similar product]

Acute Toxicity Estimates: No data available.

Eye Irritation (rabbit): Minimal eye irritant.

Skin Irritation (rabbit): Harmful in contact with skin.

Inhalation: Harmful if inhaled.

Ingestion: Harmful if swallowed.

Specific Target Organ Toxicity: Heart. Liver. Blood. Thyroid [based on a similar product].

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

The pesticide is highly toxic to aquatic invertebrates.

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	Rainbow trout	211 mg/L – 96-hour LC ₅₀
	Daphnia magna	85 mg/L – 48-hour EC ₅₀
	Honey Bee	0.078 µ/bee 48-hour LD ₅₀ (Contact) 0.0039 µ/bee 48-hour LD ₅₀ (Oral)

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: Very persistent.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Low potential for accumulation.

12.4 MOBILITY IN SOIL

High mobility.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.



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13 DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

PESTICIDE DISPOSAL: Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used 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 in proper disposal methods.

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. 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 1/4 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 and less than 56 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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 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. Do not contaminate water, food or feed by storage or disposal.

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

HMIS

2	Health
1	Flammability
0	Reactivity
B	PPE



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SARA Hazard Notification/Reporting

SARA Title III Hazard Category:

Immediate Y
Delayed N

Fire N
Reactive N

Sudden Release of Pressure 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, absorbed through skin or inhaled.
Avoid breathing vapor or spray mist.
Wash thoroughly with soap and water after handling.
Remove contaminated clothing and wash before reuse.

16 OTHER INFORMATION

SDS STATUS: Format revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

EPA REG. NO.: 34704-940

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