## Dyna-Shield Defuze™

A seed treatment for control of diseases in barley, canola\*, cotton, oats\*, potato\*, rye\*, sweet corn, wheat, and triticale.

\*Not approved for use in California

**ACTIVE INGREDIENT:** 

 Difenoconazole\*
 33.3%

 OTHER INGREDIENTS:
 66.7%

 TOTAL:
 100.0%

\*CAS No. 119446-68-3

Contains 3.09 pounds difenoconazole per gallon.

# CAUTION / PRECAUCION

See inside label booklet for FIRST AID and PRECAUTIONARY STATEMENTS

#### For Medical Emergencies Only, Call 1-866-944-8565

FIRST AID		
If swallowed:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>	
If on skin or clothing:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If inhaled:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>	
If in eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
HOT LINE NUMBER		

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-866-944-8565 for emergency medical treatment information.

EPA REG. NO. 34704-1109 EPA EST. NO. 34704-XX-XXX

Net Contents: 2.5 GAL (9.46 L)

FORMULATED FOR Loveland Products, Inc. P.O. Box 1286 Greeley, Colorado 80632-1286



### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### **CAUTION / PRECAUCION**

Harmful if swallowed, absorbed through the skin, or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves (Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Polyvinyl Chloride (PVC) ≥ 14 mils, Viton ≥ 14 mils.

**Note:** Persons involved in bagging treated seed, sewing or moving bags of treated seed, or cleaning up bagging areas or seed treatment equipment are pesticide handlers and must wear the PPE required on this label for pesticide handlers.

#### **USER SAFETY REQUIREMENTS**

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.

#### **USER SAFETY RECOMMENDATIONS**

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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.

#### **ENVIRONMENTAL HAZARDS**

**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.

#### PHYSICAL AND CHEMICAL HAZARDS

Please do not store or heat near oxidizing agents, hazardous chemical reaction may occur.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

For use by commercial seed treaters only in liquid or slurry treaters. Not for use on agricultural establishments in hopper-box, planter-box, slurry-box or other seed treatment applications at or immediately before planting.

Mix thoroughly before use or use entire container at one time. All tank mixes should be pre-tested to determine physical compatibility between formulations. Observe the most restrictive use precautions and limitations on labeling of the products used in mixtures.

**NOTE:** The purchaser of this product is responsible for ensuring that all seed treated with this product is adequately dyed with a suitable colorant that imparts an unnatural color, to prevent its accidental use as food for man or feed for animals. Refer to 21 CFR, Part 2.25. Any dye or colorant added to treated seed must be cleared for use under 40 CFR, Part 180.900. Federal regulations have established official tolerances for certain pesticide residues. In order that residues on food and forage crops will not exceed established tolerances, use only at specified rates.

Treated seed must not be used for or mixed with food or animal feed or processed for oil. Seed commercially treated with this product must be labeled in accordance with all applicable requirements of the Federal Seed Act.

#### SEED LABELING

THE FEDERAL SEED ACT REQUIRES THAT BAGS CONTAINING TREATED SEED MUST BE LABELED AS FOLLOWS:

"This seed has been treated with difenoconazole seed treatment fungicide. **DO NOT** use for food, feed, or oil processing. Store away from feeds and other foodstuffs."

THE FOLLOWING STATEMENTS ARE ALSO REQUIRED ON BAGS CONTAINING SEEDS TREATED WITH Dyna-Shield Defuze™:

"DO NOT allow children, pets or livestock to have access to treated seeds."

"Wear long pants, long-sleeved shirt, shoes, socks, and chemical-resistant gloves when opening this bag or loading/pouring the treated seed."

"After the seeds have been planted, do not enter or allow worker entry into treated areas during the **restricted-entry interval** (REI) of **12 hours**. Exception: If the treated seed is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, chemical-resistant gloves made of any waterproof material, and chemical-resistant footwear. "

"Green wheat, oats, rye or triticale forage may not be grazed until 55 days after planting."

"Green barley forage may not be grazed until 30 days after planting."

"Do not plant any crop other than those on this label within 30 days to fields in which treated seeds were planted."

Excess treated seed may be used for ethanol production only if (1) by-products are not used for livestock feed and, (2) no measurable residues remain in ethanol by-products that are used in agronomic practice."

#### PRODUCT INFORMATION

Apply as a seed treatment using standard slurry or mist-type seed treatment equipment. Uniform application to seed is necessary to ensure seed safety and best disease protection. Seed must be sound and well cured prior to treatment. Product must be diluted with sufficient water to ensure complete seed coverage. Consult a seed treatment specialist regarding slurry rates for the crop to be treated with this product.

When used in combination with other fungicides having a similar biological spectrum, this product will add to the systemic protection of the seed and seedling and improve control under high disease pressure.

**MIXTURES:** Prior to blending with other seed treatments confirm physical compatibility, seed safety, seed safety in stored seed, and biological efficacy before tank mixing with other seed treatment products. Follow the label directions for the most restrictive of label precautions and limitations.

The following table lists the maximum recommended total slurry volumes by crop.

Сгор	Maximum Fl. Oz. Slurry / 100 lbs. of Seed
Wheat, Oats*, Rye*, Triticale, and Barley	16
Canola*	23
Sweet Corn	8 to 16
Cotton	30
Potato*	5

<sup>\*</sup> Not approved for use in California

BARLEY	
DISEASE	RATE (Fl. Oz. / 100 lbs. of Seed)
Barley Stripe	
General Seed Rots (caused by saprophytic fungi such as <i>Penicillium</i> spp. and <i>Aspergillus</i> spp.)	
Covered Smut	0.5
Pythium Damping Off	0.5
Common Root Rot (Cochiliobolus spp.) <sup>1</sup>	
Fusarium Seed Scab <sup>1</sup>	
Rhizoctonia Root Rot <sup>1</sup>	
Barley Stripe	
General Seed Rots (caused by saprophytic fungi such as <i>Penicillium</i> spp.	
and Aspergillus spp.)	
Fusarium Seed Scab	
Covered Smut	
Pythium Damping Off	1.0
Take-all <sup>1</sup>	
Common Root Rot (Cochiliobolus spp.) <sup>1</sup>	
Fusarium Root Rot <sup>1</sup>	
Fusarium Crown Rot <sup>1</sup>	
Rhizoctonia Root Rot <sup>1</sup>	
REMARKS	

<sup>&</sup>lt;sup>1</sup> Partial control / suppression only: erratic control from good to poor, or control below that which is generally considered acceptable for commercial disease control.

CANOLA (not approved for use in California)	
DISEASE	RATE (Fl. Oz. / 100 lbs. of Seed)
Seed-borne Blackleg (Leptosphaeria maculens)	1.0
REMARKS	

Tank mix Dyna-Shield Defuze™ with seed treatment SPIRATO 480 FS for broad spectrum protection against other diseases such as Fusarium and Rhizoctonia.

COTTON	
DISEASE	RATE (Fl. Oz. / 100 lbs. of Seed)
Preemergent and Postemergent damping off caused by <i>Rhizoctonia</i> spp. and <i>Fusarium</i> spp.	0.5 to 1.45
REMARKS	

Use higher rates where disease is expected to be severe. Apply in combination with DYNA-SHIELD METALAXYL 318 FS FUNGICIDE or SEBRING 480 FS for activity against seed and seedling diseases cause by Pythium spp. Follow application and other instructions found on the DYNA-SHIELD METALAXYL 318 FS FUNGICIDE or SEBRING 480 FS product label.

SWEET CORN	
DISEASE	RATE (Fl. Oz. / 100 lbs. of Seed)
For suppression of Die-back caused by <i>Penicillium</i> spp., <i>Fusarium</i> spp., and <i>Aspergillus</i> spp.	0.5 – 1.24
REMARKS	
Confirm compatibility, seed safety, seed safety in stored seed, and biological seed treatment products.	al efficacy before tank mixing with other

WINTER WHEAT and TRITICALE	
DISEASE	RATE (Fl. Oz. / 100 lbs. of Seed)
Common Bunt <sup>1</sup>	
Dwarf Bunt	
Flag Smut	
Seed-borne Septoria	
Loose Smut	0.5
General Seed Rots <sup>2</sup>	0.5
Fusarium Seed Scab	
Early Season Disease Control	
Common Root Rot (Cochiliobolus spp.)	
Rhizoctonia Root Rot	
Common Bunt <sup>1</sup>	
Dwarf Bunt	
Loose Smut	
Flag Smut	
Seed-borne Septoria	
General Seed Rots <sup>2</sup>	
Fusarium Seed Scab	
Early Season Disease Control	
Common Root Rot (Cochiliobolus spp.)	1.0
Fusarium Root Rot	
Fusarium Crown Rot	
Take-all	
Rhizoctonia Root Rot	
Fall Season Foliar Disease Control <sup>3</sup>	
Fall Season Powdery Mildew	
Fall Season Leaf Rust	
Fall Season Septoria Leaf Blotch	
REMARI	(9)

REMARKS

Dyna-Shield Defuze™ controls both seed-borne and soil-borne common bunt.

General seed rots controlled include those cause by saprophytic fungi such as *Penicillium* spp. and *Aspergillus* spp.

Dyna-Shield Defuze™ provides control of fall season powdery mildew, fall season leaf rust, and fall season Septoria leaf blotch in winter wheat for the first 6 weeks after planting. For full season control of these foliar diseases, use a propiconazole fungicide labeled for this use.

SPRING WHEAT and TRITICALE	
DISEASE	RATE (Fl. Oz. / 100 lbs. of Seed)
Common Bunt <sup>1</sup>	
Seed-borne Septoria	
Loose Smut	
Flag Smut	
General Seed Rots <sup>2</sup>	0.5
Fusarium Seed Scab	
Early Season Disease Control	
Common Root Rot (Cochiliobolus spp.)	
Rhizoctonia Root Rot	
Common Bunt <sup>1</sup>	
Loose Smut	
Flag Smut	
Seed-borne Septoria	
General Seed Rots <sup>2</sup>	
Fusarium Seed Scab	1.0
Early Season Disease Control	1.0
Common Root Rot (Cochiliobolus spp.)	
Fusarium Root Rot	
Fusarium Crown Rot	
Take-all	
Rhizoctonia Root Rot	

#### **REMARKS**

Dyna-Shield Defuze™ controls both seed-borne and soil-borne common bunt.

<sup>2</sup> General seed rots controlled include those cause by saprophytic fungi such as *Penicillium* spp. and *Aspergillus* spp.

DISEASE	RATE (Fl. Oz. / 100 lbs. of Seed)
General Seed Rots <sup>1</sup>	
Seedling Blight caused by seed- and soil-borne <i>Fusarium</i> and soil-borne <i>Pythium</i>	
Seedling Root Rot caused by seed- and soil-borne <i>Fusarium</i> and soilborne <i>Pythium</i>	0.5 – 1.0
Pythium and Fusarium Damping-Off	
Covered Smut	
Loose Smut	
Common Root Rot (Cochliobolus spp.) <sup>2</sup>	
REMARKS	

General seed rots controlled include those cause by saprophytic fungi such as *Penicillium* spp. and *Aspergillus* spp. Suppression only (control at a level below optimum but still of commercial benefit).

POTATOES (not approved for use in California)	
DISEASE	RATE (Fl. OZ/100 lbs. of Seed)
Use this product in a tank mix with Spirato 480 FS (or equivalent fludioxonil	0.103
product) to prevent or reduce the development of resistance to fludioxonil by	
the following disease organisms: 1 Fusarium spp. that cause dry rot seed	
decay, seed-borne Rhizoctonia spp. that cause stem canker and tuber black	
scarf, and seed-borne Helminthosporium solani that causes silver scurf.	
REMARKS	

<sup>1</sup> Dyna-Shield Defuze™ <u>must</u> be used in combination (tank-mix) with a fludioxonil seed treatment product labeled for potato seed treatment use at a minimum rate of 0.00125 lbs. fludioxonil/100 lbs. of seed (i.e., 0.04 fl. oz Spirato 480 FS /100 lbs. of seed). **DO NOT** exceed 0.0025 lbs. fludioxonil/100 lbs. of seed (0.08 fl oz Spirato 480 FS/100 lbs. of seed). Regardless of the application (seed, soil, or foliar) do not apply more than 0.46 lb of difenoconazole (19 oz/A/year of Dyna-Shield Defuze™ equivalent)

DISEASE RA	TE (Fl. Oz. / 100 lbs. of Seed)
ral Seed Rots <sup>1</sup> ing Blight caused by seed- and soil-borne Fusarium and soil-borne iium ing Root Rot caused by seed- and soil-borne Fusarium and soil- e Pythium -borne Septoria um and Fusarium Damping-Off non Bunt f Bunt non Root Rot (Cochliobolus spp.) <sup>2</sup>	0.5 – 1.0
All <sup>2</sup>	
ium Crown and Foot Rot <sup>2</sup>	

General seed rots controlled include those cause by saprophytic fungi such as *Penicillium* spp. and *Aspergillus* spp.
 Suppression only (control at a level below optimum but still of commercial benefit).

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

**PESTICIDE STORAGE:** Store in original container in a dry, temperature controlled, secure place.

**PESTICIDE DISPOSAL:** 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 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:**

[Note to Reviewer: The following statement will be included on all Final Printed Labels bearing multiple Container Handling statements] "NOTE: This product is available in multiple containers. Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable" or "Refillable" designation. Follow the container handling instructions below that apply to your container type / size."]

#### [Nonrefillable Containers 5 Gallons or Less]

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. 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. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

#### [Nonrefillable containers larger than 5 gallons]

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **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. 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. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

#### [Refillable containers]

Refillable container. 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 a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300.

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, READ THE ENTIRE DIRECTIONS FOR USE AND THE FOLLOWING CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY. BY BUYING OR USING THIS PRODUCT, THE BUYER OR USER ACCEPTS THE FOLLOWING CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY, WHICH NO EMPLOYEE OR AGENT OF LOVELAND PRODUCTS, INC. OR THE SELLER IS AUTHORIZED TO VARY IN ANY WAY.

FOLLOW THE DIRECTIONS FOR USE OF THIS PRODUCT CAREFULLY. IT IS IMPOSSIBLE TO ELIMINATE ALL RISKS INHERENTLY ASSOCIATED WITH THE USE OF THIS PRODUCT. CROP OR OTHER PLANT INJURY, INEFFECTIVENESS, OR OTHER UNINTENDED CONSEQUENCES MAY RESULT FROM SUCH RISKS AS WEATHER OR CROP CONDITIONS, MIXTURE WITH OTHER CHEMICALS NOT SPECIFICALLY IDENTIFIED IN THIS PRODUCT'S LABEL, OR USE OF THIS PRODUCT CONTRARY TO THE LABEL INSTRUCTIONS, ALL OF WHICH ARE BEYOND THE CONTROL OF LOVELAND PRODUCTS, INC. AND THE SELLER. THE BUYER OR USER OF THIS PRODUCT ASSUMES ALL SUCH INHERENT RISKS.

SUBJECT TO THE FOREGOING INHERENT RISKS, LOVELAND PRODUCTS, INC. WARRANTS THAT THIS PRODUCT CONFORMS TO THE CHEMICAL DESCRIPTION ON THE LABEL AND IS REASONABLY FIT FOR THE PURPOSES STATED IN THE DIRECTIONS FOR USE WHEN THE PRODUCT IS USED IN STRICT ACCORDANCE WITH SUCH DIRECTIONS FOR USE UNDER NORMAL CONDITIONS OF USE. EXCEPT AS WARRANTED IN THIS LABEL AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS PRODUCT IS SOLD "AS IS," AND LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

IN THE UNLIKELY EVENT THAT BUYER OR USER BELIEVES THAT LOVELAND PRODUCTS, INC. HAS BREACHED A WARRANTY CONTAINED IN THIS LABEL AND TO THE EXTENT REQUIRED BY APPLICABLE LAW, BUYER OR USER MUST SEND WRITTEN NOTICE OF ITS CLAIM TO THE FOLLOWING ADDRESS: LOVELAND PRODUCTS, INC., ATTENTION: LAW DEPARTMENT, P.O. BOX 1286, GREELEY, CO 80632-1286.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE BUYER'S OR USER'S EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF LOVELAND PRODUCTS, INC. OR THE SELLER: DIRECT DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, LOVELAND PRODUCTS, INC. AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

FOR NON-EMERGENCY (E.G., CURRENT PRODUCT INFORMATION), CALL LOVELAND PRODUCTS, INC.

1-888-574-2878.

DYNA-SHIELD DEFUZE IS A TRADEMARK OF LOVELAND PRODUCTS, INC.
ALL OTHER TRADEMARKS ARE THE PROPERTY OF THEIR RESPECTIVE OWNERS.

FORMULATED FOR:
LOVELAND PRODUCTS, INC.
P.O. BOX 1286
GREELEY, COLORADO 80632-1286