



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

April 12, 2021

Denise Dzialo  
Sr. Regulatory Manager, North America  
MacDermid Agricultural Solutions, Inc.  
c/o UPL NA Inc.  
630 Freedom Business Center, Suite 402  
King of Prussia, PA 19406

Subject: Notification per PRN 98-10 – minor label updates including optional text, medical and emergency contact information, updated address, registrant name, container disposal, trademark, and copyright statement  
Product Name: Enhance  
EPA Registration Number: 400-554  
Application Date: 12/29/2020  
Decision Number: 570971

Dear Ms. Dzialo:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

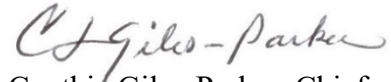
The label submitted with the application has been stamped “Notification” and will be placed in our records.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

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If you have any questions, you may contact please contact Senedu Alemu at 703 305-6178 or by email at [alemu.senedu@epa.gov](mailto:alemu.senedu@epa.gov).

Sincerely,

A handwritten signature in cursive script that reads "C. Giles-Parker".

Cynthia Giles-Parker, Chief  
Fungicide Branch  
Registration Division (7505P)

[Text in brackets is optional]

# Enhance

## SEED PROTECTANT

Active Ingredients:

Captan*	19.55%
Related Derivatives	0.45%
Carboxin	20.00%
Other Ingredients:	60.00%
Total:	100.00%

\*N-trichloromethylthio-4-cyclohexene-1,2-dicarboximide

**KEEP OUT OF REACH OF CHILDREN**

# DANGER • PELIGRO

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.)

[See \[front\]\[back\]\[side\] Panel for First Aid Instructions and \[Leaflet\]\[Booklet\] for Complete Precautionary Statements and Directions for Use.](#)

[Box/Case: See containers inside for additional Precautionary Statements and complete Directions for Use.](#)

[Container: See attached booklet for additional Precautionary Statements and complete Directions for Use.](#)

[Peel Down for Directions.](#)

[See inside for First Aid, additional Precautionary Statements, and complete Directions for Use.](#)

[Additional Precautionary Statements, Directions for Use and Emergency Assistance Information are inside this booklet](#)

### FIRST AID

- |                                |  |
|--------------------------------|--|
| <b>IF IN EYES:</b>             | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lens, 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>  |
| <b>IF INHALED:</b>             | <ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>  |
| <b>IF ON SKIN OR CLOTHING:</b> | <ul style="list-style-type: none"> <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>  |
| <b>IF SWALLOWED:</b>           | <ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have the 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> |

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

**EMERGENCY ASSISTANCE:** Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**EMERGENCY PHONE 800-292-5898**

**SAFETY DATA AND INFORMATION 866-430-2775**

**TRANSPORTATION EMERGENCY (CHEMTREC) 800-424-9300**

**FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE CALL ROCKY MOUNTAIN POISON AND DRUG SAFETY: 1-866-673-6671.**

**FOR 24-HOUR CHEMICAL EMERGENCY (Spills, leaks, exposure or accident) CALL CHEMTREC: 1-800-424-9300 OR 1-703-527-3887.**

**FOR PRODUCT USE INFORMATION: CALL 1-800-438-6071**

### Net Contents:

EPA REG. NO. 400-554

EPA EST. NO.

004006/xxxxxx

Manufactured for:

~~Chemtura Corporation~~

~~199 Benson Rd~~

~~Middlebury, CT 06749~~

MacDermid Agricultural Solutions, Inc.

c/o UPL NA INC.

630 Freedom Business Center, Suite 402

King of Prussia, PA 19406

## NOTIFICATION

400-554

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

04/12/2021

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
DANGER • PELIGRO**

Corrosive. Causes irreversible eye damage. Harmful if absorbed through skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing dust. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are polyethylene and polyvinylchloride. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection chart.

**All Loaders, Applicators and other Handlers must wear:**

- long-sleeved shirt and long pants;
- shoes plus socks;
- chemical-resistant gloves, except when sewing bags of treated seed;
- protective eyewear (goggles, face shield, or safety glasses);
- chemical-resistant apron when loading, cleaning up spills, or cleaning equipment;
- NIOSH approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C *or* a NIOSH- approved respirator with any N<sup>2</sup>, R, P or HE filter.

Persons drying or bagging treated seed or sewing bags containing treated seed are handlers and must wear handler personal protective equipment.

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.

See Engineering Controls for additional options.

**ENGINEERING CONTROLS**

When handlers use closed systems designed by the manufacturer to enclose the pesticide to prevent it from contacting handlers or other people AND the system is functioning properly and is used and maintained in accordance with the manufacturer's written operating instructions, the handlers need not wear the chemical-resistant gloves and apron. However, chemical-resistant gloves and apron must be immediately available for use in an emergency, such as a spill or equipment breakdown.

**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**

This chemical is **toxic to fish**. Do not contaminate water when disposing of equipment washwaters or rinsate or by disposal of wastes. Treated seed exposed on soil surface may be hazardous to birds. Cover or collect spilled seeds.

**Endangered Species**

This bag contains seed treated with carboxin and captan. This product may have effects on federally listed threatened or endangered species or their critical habitat in some counties. It is a violation of federal law to kill, harm or harass listed animal species without authorization. To limit the potential for such impacts when using this product, consult and follow the instructions provided in the EPA Endangered Species Bulletin for the County or Parish in which you are applying the seed. To determine whether your County or Parish has a Bulletin consult <http://www.epa.gov/espp> before each season's use of this product.

**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. 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.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the **restricted entry interval (REI) of 12 hours**.

**Exception:** Once the seeds are planted in soil or other planting media, the Worker Protection Standard, allows workers to enter the treated areas without restriction if there will be no contact with the soil/media subsurface.

**Double Notification:** Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

**Eye Protection:** For at least seven days following the application of captan:

1. At least one container designed specifically for flushing eyes must be available in operating condition at the Worker Protection Standard-required decontamination site for workers entering the area treated with captan, and
2. Workers must be informed orally, in a manner they can understand:
  - that residues in the treated area may be highly irritating to their eyes,
  - that they should take precautions, such as refraining from rubbing their eyes to keep the residue out of their eyes,
  - that if they do get residue in their eyes, they should immediately flush their eyes, with the eye flush container that is located at the decontamination site, and
  - how to operate the eye flush container.

**Early Entry 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, or treated seeds is coveralls, chemical-resistant gloves made of any waterproof material, shoes plus socks and protective eyewear (goggles, faceshield, or safety glasses).

## PRODUCT INFORMATION

**ENHANCE**<sup>®</sup> Seed Protectant is a formulation specifically designed for treatment of wheat, oat and barley seed on the farm at planting time. It controls covered smut (*Tilletia caries* and *Tilletia foetida*) and loose smut (*Ustilago nuda*) on wheat, covered smut (*Ustilago kollerii*) and loose smut (*Ustilago avenae*) on oats and covered smut (*Ustilago hordei*) and loose smut (*Ustilago nuda*) on barley. It also tends to reduce seed rot and seedling blight caused by soil fungi.

**ENHANCE** also protects soybean seed from seed borne and soil borne fungi that cause seed decay, damping off, and seedling blights (including *Fusarium*, *Rhizoctonia* and *Pythium*).

For use only on agricultural establishments at or immediately before planting.

## RATES

**Wheat, Oats, Barley:** Use 4 oz. per 100 lbs. of seed.

**Soybeans:** Use 5 oz. per 100 lbs. of seed.

## RESTRICTIONS

Do not use treated seed for food, feed, or oil purposes.

Do not graze or feed livestock on treated area for 42 days after planting.

Soybean restriction: Do not graze or feed forage or hay from treated areas to livestock.

## APPLICATION INSTRUCTIONS

Apply as a planter-box treatment (including air and vacuum planters), mixing thoroughly with the seed before planting. For best results, the following procedure is suggested. Fill planter-box only half-full of seed, add half the required amount of **ENHANCE** and mix thoroughly with a stick. Then add remainder of seed to planter-box and add the rest of the required amount of product to the seed, again mixing thoroughly. Good results are also obtained by premixing seed with the product in a suitable container, then pouring treated seed into planter-box.

**Note: One level scoop (enclosed) is equivalent to approximately 1 avoirdupois ounce of this product.**

Adjust the seed drill or planter to give the required rate of seed delivery with treated seed. Regularly inspect planter plates and clean as required. At the end of each day, clean out the electric-eye monitors as directed by the manufacturer.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep pesticide in original container. Store in a cool, dry place. Protect from excessive heat. Do not store or transport near feed or food.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL/HANDLING:** Nonrefillable container.

Do not reuse or refill this container. Completely empty container by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of empty container in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke. Offer for recycling, if available.

## IMPORTANT NOTICE

Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions and instructions specified on the label, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product, contrary to label instructions, or under conditions not reasonably foreseeable to seller, and, to the extent consistent with applicable law, the buyer assumes the risk of any such use.

Treatment of highly mechanically damaged seed, or seed known to be of low vigor and poor quality, except for the purpose of curative control of existing disease pests, may result in reduced germination and/or reduction of seed and seedling vigor.

Treat and conduct germination tests on a small test sample of seed before treating commercial quantities with as elected chemical treatment. Due to seed quality and seed storage conditions beyond control of ~~Chemtura~~, MacDermid Agricultural Solutions, Inc., ~~Chemtura~~, MacDermid Agricultural Solutions, Inc. makes no claims of guarantees as to germination of carry-over seed.

ENHANCE is a ~~registered~~ trademark of ~~Chemtura Corporation~~ of a UPL Corporation Limited Group Company.

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[NOTIF 12/29/2020, resub 3/31/2021](#)