

# Vitaflo™ -280

## FLOWABLE FUNGICIDE

For sale and use by professional applicators only. Not for sale to or use by homeowners/consumers.

### Active Ingredients:

Carboxin (5,6-dihydro-2-methyl-M-phenyl-1,4-oxathiin-3-carboxamide) .....	14.9%*
Thiram (Tetramethylthiuram disulfide) .....	13.2%*
Other Ingredients: .....	71.9%
Total:.....	100.0%

Note: Contains petroleum distillates.

\*Contains 1.43 pounds of carboxin and 1.26 pounds of thiram per gallon.

\*Contains 162 grams of carboxin and 143 grams of thiram per liter.

## KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not give anything by mouth to an unconscious person.</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 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>NOTE TO PHYSICIAN:</b> Contains petroleum distillate - vomiting may cause aspiration pneumonia.	
<b>EMERGENCY ASSISTANCE:</b> Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>EMERGENCY PHONE</b>	<b>800-292-5898</b>
<b>SAFETY DATA AND INFORMATION</b>	<b>866-430-2775</b>
<b>TRANSPORTATION EMERGENCY (CHEMTREC)</b>	<b>800-424-9300</b>

See Additional Precautionary Statements.

Manufactured for:  
Chemtura Corporation  
199 Benson Road  
Middlebury, CT 06749  
EPA REG. NO. 400-564  
EPA EST. NO.  
007/093008  
Product of Canada



www.chemtura.com

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Causes moderate eye and skin irritation. Harmful if swallowed, inhaled or absorbed through skin. Do not get in eyes, on skin or on clothing. Because of possible unpleasant side effects, alcoholic beverages should be avoided for 24 hours before and after working with VITAFLO-280 or treated seed.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

Some materials that are chemical-resistant to this product are made of barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or Viton. If you want more options, follow the instructions for Category C on an EPA chemical-resistance category selection chart.

**All Mixers, Loader, Applicators and Other Handlers Must Wear:**

- Long-sleeved shirt and long pants,
- shoes plus socks,
- chemical-resistant gloves, and
- chemical-resistant apron when mixing, loading, cleaning up spills, or cleaning equipment.

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.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**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 apron. However, the chemical-resistant gloves must be immediately available for use in an emergency, such as a spill or equipment breakdown.

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 may be reduced or modified as specified in the WPS.

**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 pesticide is **toxic to fish, aquatic invertebrates, oysters and shrimp**. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

**Treated seeds are hazardous to fish, birds and mammals**. Do not plant treated seeds by broadcasting to the soil surface. Ensure that all seeds are thoroughly covered with soil, especially in turn areas. If seeds are not thoroughly incorporated by the planter during planting, additional incorporation may be required to thoroughly cover exposed seeds.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not use or store near heat or open flame.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all label directions carefully before use.

Do not apply this product through any type of irrigation system.

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.

After seeds have been planted, do not enter or allow worker entry into treated areas during the **restricted entry interval (REI) of 24 hours.**

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

**Early Entry PPE:** 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 seed is:

- coveralls
- chemical-resistant gloves made of any waterproof material
- shoes plus socks.

## GENERAL

VITAFLO™-280 is a combination of a systemic fungicide (VITAVAX®) and a contact fungicide (Thiram) providing plant protection against seed and soilborne seedling diseases including damping-off and seed decay. In addition, VITAFLO-280 provides protection against the following diseases: Barley: covered smut (*Ustilago hordei*), true loose smut (*U. nuda*), suppression of net blotch (*Helminthosporium teres*). Wheat: loose smut (*U. tritica*), common bunt (*Tilletia caries*). Oats: loose smut (*U. kolleria*), covered smut (*U. avenae*).

VITAFLO-280 has no vapor action. Thorough seed coverage is required. Use the higher rate under conditions of heavy expected disease pressure. VITAFLO-280 can be diluted with water for use in slurry treaters. Dilute VITAFLO-280 as required to apply the specified rate of undiluted VITAFLO-280. Keep in constant agitation and use within 24 hours of diluting. Treater calibration should be rechecked if the VITAFLO-280 temperature falls below 20° F. Undiluted VITAFLO-280 can be used at temperatures down to -4° F. Centrifugal pumps are not recommended for pumping VITAFLO-280.

## SEED TREATMENT EQUIPMENT

VITAFLO-280 is formulated for on-farm and commercial use. VITAFLO-280 may be applied with mechanical, slurry, or mist-type seed treating equipment, provided that the equipment can be calibrated to accurately and uniformly apply the product to seed. Do not apply VITAFLO-280 in a planter box or hopper box. Uniform application to seed is necessary to ensure best disease protection and optimum performance. Seed should be sound and well-cured before treatment. Refer to the label rates below. VITAFLO-280 is ready to use and may be applied to seed as-is; however, dilution with water may be appropriate for some types of treaters and/or when treating under dry and/or hot conditions, to achieve more uniform product to seed coverage. VITAFLO-280 and water should be mixed thoroughly into a

slurry prior to treating seed. Recalibrate treating equipment to compensate for the addition of water. The amount of dilution water that is most suitable depends on the seed, treater type and temperature. Contact your local Chemtura representative or supplier for specific recommendations.

## TREATMENT RATE FOR UNDILUTED VITAFLO-280

CROP	fl. oz. per cwt. seed
Barley, Wheat	3.5 - 5.0
(The 3.5 fl. oz. rate will give partial control of true loose smut in wheat and barley. Use the 5 fl. oz. rate for control of true loose smut.)	
Oats	5.0
Triticale	3.0
Corn (field & sweet)	4.5
Soybeans, Beans	4.0

**CORN HEAD SMUT:** For protection against seedborne head smut (*Sphacelotheca reiliana*). Treat corn at 8.5-11.5 fl. oz. of UNDILUTED VITAFLO-280 per cwt. of seed.

**GENERAL PRECAUTIONS FOR CORN HEAD SMUT:** Avoid planting corn under cool, wet conditions as it may increase the incidence of head smut during the first few weeks after planting. Only controls seed-borne head smut.

## USE RESTRICTIONS

1. Care must be exercised in the handling of treated seed.
2. For cleaning lines and reservoirs, flush with water. Rinse water should be used for dilutions of VITAFLO-280.
3. Seedling rate should be checked during planting.
4. Stir well before using.
5. Prior to each use, stir contents for approximately 2 minutes with the internal hand operated agitator.
6. Do not use treated seed for food, feed or oil purposes.
7. Do not graze or feed livestock on treated areas for six weeks after planting. Do not graze or feed livestock on vines grown from treated seed.
8. Plant wheat, barley and oats seed a minimum of 1 inch deep.

## SEED LABELING

Seed that are treated with this product and then packaged or bagged for future use by growers or researchers must contain the following labeling on the outside of the package or bag:

"Treated Seed - Do Not Use for Food, Feed or Oil Purposes. This bag contains seed treated with thiram and carboxin (VITAVAX) at the manufacturer's recommended rate."

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

"Restricted-Entry Interval (REI)

After seeds have been planted, do not enter or allow worker entry into treated areas during the **restricted entry interval (REI) of 24 hours.** Exception: Once the seeds are planted in soil or other planting media, the Worker Protection Standard allows workers to enter the treated area without restriction if there will be no worker contact with treated seed or soil/media subsurface."

"Treated seeds are hazardous to fish, birds and mammals. Do not plant seeds by broadcasting to the soil surface. Ensure that all seeds are thoroughly covered with soil, especially in turn areas."

If seeds are not thoroughly incorporated by the planter during planting, additional incorporation may be required to thoroughly cover exposed seeds. 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 cleaning equipment or disposing of equipment washwater or rinsate or by disposal of wastes."

"Plant wheat, barley and oat seed a minimum of 1 inch deep."

"Do not graze or feed livestock on treated area for six weeks after planting. Do not graze or feed livestock on vines grown from treated bean or soybean seed."

"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. Bulletins also may be available from local pesticide dealers, extension offices, or State pesticide agencies."

#### **USE PRECAUTION**

Always shake or stir product well before use.

The purchaser of this product is responsible for ensuring that all seed treated with this product are adequately dyed with a suitable 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 40CFR, Part 180.1001.

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 recommended rates.

#### **COMPATIBILITY**

VITAFLO-280 may not be tank mixed with any pesticide unless adequate physical compatibility and phytotoxicity tests have been completed and proven to be satisfactory.

Do not tank mix with any product which contains a prohibition on tank mixing. Follow more restrictive labeling requirements of any tank mix partner.

#### **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in original container only. Do not store near food or feed. After partial use, replace lid and close tightly. Keep container closed when not in use. Store in a secure place that is dry, temperate and out of direct sunlight. Do not store VITAFLO-280 at temperatures above 95° F.

**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 disposed of by use 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 DISPOSAL:** Triple rinse (or equivalent). 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.

#### **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 under normal conditions of use, 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 a selected chemical treatment. Due to seed quality and seed storage conditions beyond control of Chemtura, Chemtura makes no claims of guarantees as to germination of carry-over seed.

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