
 <p><b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b> Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460</p> <p>NOTICE OF PESTICIDE: <input type="checkbox"/> Registration <input checked="" type="checkbox"/> Reregistration under FIFRA, as amended</p>	<p>EPA Reg. Number: <b>400-564</b></p>	<p>Date of Issuance: <b>SEP 30 2008</b></p>
	<p>Terms of Issuance: <b>Conditional</b></p>	
	<p>Name of Pesticide Product: <b>Vitaflo 280</b></p>	
<p>Name and Address of Registrant (include ZIP Code): <b>Attn: Michael Dupre Chemtura Corporation 199 Benson Rd Middlebury, CT 06749</b></p>		
<p><b>Note:</b> Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.</p>		
<p>On the basis of information furnished by the registrant, the above named pesticide is hereby reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.</p> <p>Based on your response to the thiram and carboxin Reregistration Eligibility Documents, EPA has reregistered the product listed above provided that the following changes are made to the label (version 06) submitted September 24, 2008:</p> <ol style="list-style-type: none"> <li>1. Revise the Ingredient Statement's reference to pounds/gallon to be consistent with a maximum density of 9.6 lbs/gallon for carboxin, and thiram, changing 1.45 to 1.43; and 1.23 to 1.26; and 174 to 162; and 1.47 to 1.43:</li> </ol>		
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<p>Signature of Approving Official:    Tony Kish Product Manager (22) Fungicide Branch Registration Division (7505P)</p>	<p>Date:  <b>SEP 30 2008</b></p>	

2. Change the instructions in the **FIRST AID** box as follows:
  - a. Under **IF SWALLOWED**: change “Do not give any liquid to the person” to “Have person sip a glass of water if able to swallow.”
  - b. Change the order of the FIRST AID statements as follows:  
 IF SWALLOWED  
 IF ON SKIN OR CLOTHING  
 IF IN EYES  
 IF INHALED
  
3. On page 2, change “Causes eye and skin irritation” to “Causes moderate eye and skin irritation.”
  
4. The following revisions are required for the **PPE** section:
  - a. The first sentence in the PPE section must be revised to read “Some materials that are chemical-resistant to this product are made of barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or viton.”
  - b. Delete the statement “For exposures in enclosed areas: A respirator...any P, R, or HE filter.”
  - c. Delete the statement “For exposures outdoors: Dust/mist...P, R, or HE filter.”
  - d. From the subsection “All mixers...” delete “except when bagging or sewing bags of treated seeds,” to correct noticeable inconsistencies with label guidance.
  
5. On page 2, in the “Environmental Hazards” section, delete current statement and add the following,
 

*“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 the 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 wash water or rinsate.*

*Treated seeds are hazardous to fish, birds, and mammals. Do not plant treated seed 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.*
  
6. Add to the “Seed labeling,” section: *“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.”*
  
7. In the ‘Seed Labeling’ section, beginning on page 3 through page 4, include opening and closing quotations for, *“Treated seeds... human/feed consumption”* so that it is clear where the labeling begins and ends.

Notice of Pesticide Reregistration  
Vitaflow 280  
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- 8. On page 3, the 'Seed Labeling' section, must be reformatted to improve this section's legibility, by inserting, "When opening this bag..." on a new line.
- 9. Delete "protective eyewear" from the sections 'PPE' and the 'Early Entry PPE' of the 'Agricultural Use Requirements' on pages 2, and page 3, respectively.
- 10. "Storage and Disposal" subsection "Pesticide Storage," on page 4, must include, "Keep container closed when not in use. Do not store near food or feed."
- 11. In the "Storage Disposal" subsections, insert appropriate spacing throughout. Also, by separate amendment or notification, revise the "Container Disposal" statement to comply with PR Notice 2007-4.

This action is taken under the authority of section 4(g)(2)(c) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.

Submit one (1) copy of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling will supersede all previously accepted labels. A copy of your label stamped "Accepted with Comments" is enclosed for your records.

If you have questions concerning this letter, please contact Bryant Crowe at 703-305-0025, or myself at 703-308-9443.

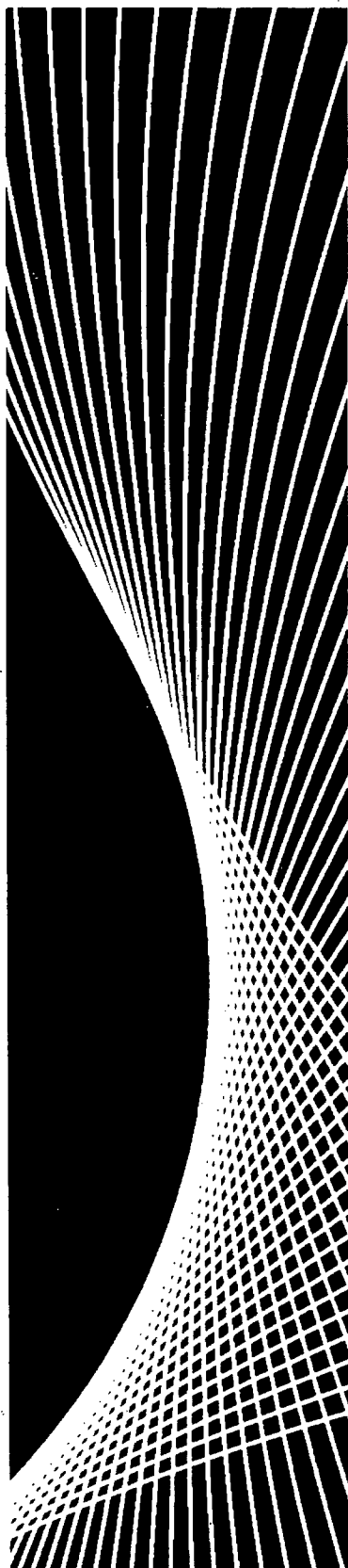
Enclosures:

- Label stamped "Accepted with Comments"
- Label review memo dated September 2, 2008
- Acute Toxicity Review (Thiram) DP355359 dated August 19, 2008
- Product Chemistry Review (Thiram) DP349924 dated April 29, 2008
- Acute Toxicity Review DP349925 dated March 11, 2008
- Product Chemistry Review (Carboxin) DP348960 dated February 21, 2008

# 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 1.45 pounds of carboxin and 1.23 pounds of thiram per gallon.  
 \*Contains 174 grams of carboxin and 147 grams of thiram per liter.

### KEEP OUT OF REACH OF CHILDREN CAUTION

<b>FIRST AID</b>	
<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 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>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</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>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>800-424-0300</b>

See Additional Precautionary Statements.

EPA REG. NO. 400-564  
 EPA EST. NO. 30856-CN-1  
 006  
 Product of Canada  
 Manufactured for:  
 Chemtura Corporation  
 199 Benson Road  
 Middlebury, CT 06749

**ACCEPTED**  
 with **COMMENTS**  
 In EPA Letter Dated  
 SEP 30 2008

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. [www.chemtura.com](http://www.chemtura.com)



400-564

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

**CAUTION**

Causes 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 listed below. 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,
- protective eyewear
- chemical-resistant gloves *except* when bagging or sewing bags of treated seed, 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.

For exposures in enclosed areas: A respirator with an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter. For exposure outdoors: Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any P, R, or HE filter.

**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 product is **toxic to fish, aquatic invertebrates, oysters and shrimp**. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

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. Plant wheat, barley and oats seed a minimum of 1 inch deep. If seeds are not thoroughly incorporated by the planted during planting, additional incorporation may be required to thoroughly cover exposed seeds. Clean-up, bury or cover all spilled seed with soil.

**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,
- protective eyewear.

**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*). Canola: *Rhizoctonia solani*, *Pythium* seed and seedling decay, *Phoma* (black leg) and *Altemaria* blight.

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.)	
Canola, rapeseed	8.8
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. Rape greens grown and harvested from VITAFLO-280 treated seed must not be used for human and feed consumption. Rapeseed grown and harvested from VITAFLO-280 treated seed is only for industrial uses and can not be used for edible oil or any other human/feed consumption.
9. 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."

"Rape greens grown and harvested from VITAFLO 280 treated seed must not be used for human and feed consumption. Rapeseed grown and harvested from VITAFLO 280 treated seed is only for industrial uses and can not be used for edible oil or any other human/feed consumption."

**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**

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

**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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