Vitaflo™-280

FLOWABLE FUNGICIDE

For on-farm use or commercial application.
DO NOT use this product for planter box or hopper box treatment.

Active Ingredients (% by weight):
carboxin (5,6-dihydro-2-methyl-N-phenyl-1,4-oxathiin-3-carboxamide).....15.59%*
thiram (tetramethylthiuram disulfide).....13.25%*
Other Ingredients**: 71.16%
Total:.....100.0%

*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.
** Contains petroleum distillates.

KEEP OUT OF REACH OF CHILDREN
CAUTION

FIRST AID	
IF SWALLOWED:	• **Immediately call a poison control center or doctor.** • **Do not induce vomiting unless told to do so by a poison control center or doctor.** • **Do not give any liquid to the person.** • **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 IN EYES:	• **Hold eye open and rinse slowly and gently with water for 15-20 minutes.** • **Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye.** • **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 mouth to mouth if possible.** • **Call a poison control center or doctor for further treatment advice.**
NOTE TO PHYSICIAN: Contains petroleum distillate - vomiting may cause aspiration pneumonia.	
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**

Manufactured for:
Chemtura Corporation
199 Benson Road
Middlebury, CT 06749

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Chemtura AgroSolutions™

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, avoid alcoholic beverages 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, handlers need not wear the chemical-resistant apron. However, chemical-resistant gloves 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 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 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. 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 INFORMATION

VITAFLO™-280 Flowable Fungicide combines a systemic fungicide (carboxin) and a contact fungicide (thiram) to provide plant protection against seed and soil borne seedling diseases. VITAFLO-280 has no vapor action. Thorough seed coverage is required.

VITAFLO-280 Flowable Fungicide can be tank mixed with a metalaxyl seed treatment product (such as MetaStar™ ST) for increased *Pythium* protection and *Phytophthora* rot protection for soybeans. The low rates provided on the metalaxyl product label for application in combination with other EPA-registered fungicides to aid in control of *Pythium* may be used with VITAFLO-280. When using combinations of products, the most restrictive of label limitations and precautions must be followed. On highly *Pythium* susceptible crops, such as sweet corn, processing peas and chickpeas, tank mixing of VITAFLO-280 with a metalaxyl product is a recommended practice.

SEED TREATING INFORMATION

VITAFLO-280 Flowable Fungicide is formulated both for on-farm and commercial use. DO NOT apply VITAFLO-280 as a planter box or hopper box treatment. 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. Uniform application to seed is necessary to ensure best disease protection and optimum performance. Seed should be sound and well-cured before treatment.

ALWAYS SHAKE, STIR OR OTHERWISE MIX THIS PRODUCT WELL BEFORE USING.

VITAFLO-280 is ready to use and may be applied to seed as-is. However, dilution with water may help to achieve more uniform seed coverage when using some types of treaters and/or when treating under dry and/or hot conditions. VITAFLO-280 and water should be mixed thoroughly into a slurry before attempting to treat seed. Recalibrate the treating equipment to compensate for the addition of any water. Addition of more than 6% water is not recommended if treating seed at temperatures below 32°F. The appropriate amount of dilution water depends on the seed, the treater type and the temperature and humidity at treatment. Contact your local Chemtura representative or supplier for specific recommendations.

Treated seed may not flow as freely as untreated seed in your planter or drill. Check seeding rates and make adjustments if necessary to obtain desired seeding rate.

APPLICATION RATES

Crop	Symptoms Controlled (*disease organism*)	Rate (fl. oz. product) per 100 lb. seed	Comments
Wheat	Loose smut (*Ustilago tritici*) and common bunt (*Tilletia caries, T. foetida*). General seed rot, seedling blight and damping off including *Fusarium*, *Cochliobolus sativus* and *Pythium*. Also protects from seed rot caused by the seed borne storage fungi *Aspergillus, Alternaria* and *Penicillium*.	3.5 to 5.0	Use the high rate for control of loose smut of wheat. The low rate will provide partial control of loose smut of wheat. The high rate will provide increased protection on highly infected seed.
Barley	True loose smut (*U. nuda*), covered smut (*U. hordei*), false loose smut (*U. nigra*), leaf stripe (*Pyrenophora graminea*) and seed-borne net blotch (*Helminthosporium teres*). General seed rot, seedling blight and damping off including *Fusarium*, *Cochliobolus sativus* and *Pythium*. Also protects from seed rot caused by the seed-borne storage fungi *Aspergillus, Alternaria* and *Penicillium*.	3.5 to 5.0	Use the high rate for control of true loose smut of barley. The low rate will provide partial control of true loose smut. The high rate will also provide increased protection on highly infected seed.
Oats	Loose smut (*U. avenae*) and covered smut (*U. kolleri*), general seed rot, seedling blight and damping off including *Fusarium*, *Cochliobolus sativus* and *Pythium*. Also protects from seed rot caused by the seed borne storage fungi *Aspergillus, Alternaria* and *Penicillium*.	5.0	
Triticale	General seed rot, seedling blight and damping off including *Fusarium*, *Cochliobolus sativus* and *Pythium*. Also protects from seed rot caused by the seed borne storage fungi *Aspergillus, Alternaria* and *Penicillium*.	3.0	
Soybeans	General seed rot, seedling blight and damping off including *Fusarium*, *Rhizoctonia*, *Pythium* and *Phomopsis/Diaporthe* (seed borne). Protects from seed rot caused by the seed borne storage fungi *Aspergillus* and *Penicillium*.	4.0	
Beans	General seed rot, seedling blight and damping off including *Fusarium*, *Botrytis* (seed-borne only), *Rhizoctonia* and *Pythium*. Also protects from seed rot caused by the seed-borne storage fungi *Aspergillus* and *Penicillium*. Also reduces seed-borne anthracnose (*Colletotrichum lindemuthianum*) transmission in dry bean (*Phaseolus*).	4.0	This product will not control anthracnose of bean if seed is highly infected.
Corn (field & sweet)	Seed rot, seedling blight and damping off including *Fusarium* and *Rhizoctonia*. Also protects from seed rot caused by the seed-borne storage fungi *Aspergillus* and *Penicillium*.	4.5	
	Seed-borne head smut (*Sphacelotheca reiliana*)	8.5 to 11	This product controls only seed-borne head smut. Avoid planting corn under cool, wet conditions, because the incidence of head smut may increase during the first few weeks after planting under such conditions.

USE RESTRICTIONS AND PRECAUTIONS

1. Do not use treated seed for food, feed or oil purposes.
2. 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 153.155.
3. Plant wheat, barley and oats seed a minimum of 1 inch deep.
4. Do not graze or feed livestock on treated areas for six weeks after planting.
5. Do not graze or feed livestock on vines grown from treated bean, pea or soybean seed.

COMPATIBILITY

Do not tank mix VITAFLO-280 with any other product unless adequate physical compatibility and phytotoxicity tests have been completed and proven to be satisfactory. Do not tank mix with any product that contains a label prohibition against tank mixing.

TREATED SEED LABELING

Seed that is treated with this product and then packaged or bagged for future use 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."

"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, pea, 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."

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. ALWAYS SHAKE OR STIR PRODUCT WELL BEFORE USE.

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.

EQUIPMENT CLEANING: To clean lines and reservoirs of seed treating equipment, flush thoroughly with water. Rinse water may be used for dilution of VITAFLO-280 (See Seed Treating Information). Do not contaminate water by disposal of equipment washwater or rinsate.

CONTAINER DISPOSAL

Nonrefillable container

Plastic Containers: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Then offer container for recycling if available, reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Triple rinse as follows: *For containers with capacity equal to or less than 5 gallons:* Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Add water - at least 2% of the container volume, and up to 1/3 of the volume of water needed to make the proper slurry composition with a maximum of ¼ of the container volume - and recap. Shake for 30 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. If used in application equipment, adjust the slurry volume application rate to account for any added rinsate water.

For containers with capacities greater than 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Add water - at least 2% of the container volume, and up to 1/3 of the volume of water needed to make the proper slurry composition with a maximum of ¼ of the container volume. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 60 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. If used in application equipment, adjust the slurry volume application rate to account for any added rinsate water.

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 into application equipment or mix tank. Add water - at least 2% of the container volume, and up to 1/3 of the volume of water needed to make the proper slurry composition with a maximum of ¼ of the container volume. Replace and tighten closure. Agitate vigorously or recirculate the rinsate with a pump for at least 2 minutes, ensuring that the rinsate rinses the walls of the container. Empty the rinsate into application equipment or rinsate collection system, for later use or disposal. Repeat this procedure two more times. If used in application equipment, adjust the slurry volume application rate to account for any added rinsate water.

Recycling: 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 Ag Container Recycling Council (ACRC) at 1-877-952-2272 (toll free) or www.acrecycle.org.

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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