SIGNET™ 480 FS

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

ACTIVE INGREDIENT:
Thiram* [Tetramethylthiuram Disulfide] .......................... 44%

OTHER INGREDIENTS: .................................................. 56%

TOTAL: ........................................................................ 100.0%

*Equivalent to 4.0 lb. Thiram per U.S gallon or 480 g/l

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCIÓN
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 Inside Booklet for FIRST AID and PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure. Call CHEMTREC
(800) 424-9300
For Medical Emergencies Only. Call (877) 325-1941

EPA Reg. No. 45728-26-55146
EPA Est. No. 37429-GA-02

Net Contents
2.5 Gal.
(9.46 L)

Manufactured for
Nufarm Americas Inc., AGT Division
150 Harvester Drive
Burr Ridge, IL 60527
PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION / PRECAUCION

Harmful if swallowed. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Avoid breathing spray mist or vapor. Do not take alcohol immediately before or after exposure to this product. The consumption of alcohol by the applicator can increase the toxicity of the product. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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 selection chart.

All mixers, loaders, applicators and other handlers must wear:
- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves, except when flagging to support aerial applications, applying with aircraft, or applying while driving motorized ground equipment, (such as barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils), neoprene rubber (≥14 mils), polyvinyl chloride (PVC) (≥14 mils), or Viton (≥14 mils),
- Chemical-resistant apron when mixing, loading, cleaning up spills, cleaning equipment, or otherwise exposed to the concentrate,
- Respirator with an organic vapor (OV) cartridge or canister with any N, R, P filter.

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

See engineering controls for additional requirements and options.
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.

ENGINEERING CONTROL STATEMENTS:
When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.24(d)(4–6)], the handler PPE may be reduced or modified as specified in the WPS. Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.24(d)(6)].

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.
- 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.

“Endangered Species: 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.

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<th>FIRST AID</th>
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<td>IF IN EYES</td>
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<td></td>
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<td>IF ON SKIN OR CLOTHING</td>
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<td></td>
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<td>IF INHALED</td>
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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 1-877-325-1840 for emergency medical treatment information.

ENVIRONMENTAL HAZARDS
This chemical is toxic to fish, aquatic invertebrates, birds, 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 by cleaning of equipment or disposing of equipment washwaters or rinsate. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination Systems (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Do not apply where conditions favor drift from treatment area.

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

PHYSICAL OR CHEMICAL HAZARDS
Keep away from heat and open flame.
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.

Do not graze treated areas or feed clippings to livestock.

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 intervals. 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 24 hours.

Exception: Once treated seed, seed pieces, or bulbs, 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 contact with the treated seeds, seed pieces, or bulbs.

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, shoes plus socks, chemical-resistant gloves (such as barrier laminate, butyl rubber (≥14 mils), nitrile rubber (≥14 mils), neoprene rubber (≥14 mils), polyvinyl chloride (PVC) (≥14 mils), or Viton (≥14 mils) and protective eyewear.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Landscapes and Golf Course Turf Uses: Do not enter or allow other people to enter treated areas until spray has dried.

SEED APPLICATIONS

Seeds, Bulbs, Seed Pieces that are treated with this product and are then packaged or bagged must contain the following labeling on the outside of the package or bag:

"This bag contains [seeds, bulbs, or seed pieces] treated with thiram. When opening this bag or loading/pouring the treated [seeds, bulbs, or seed pieces], wear long-sleeved shirt, long pants, shoes, socks, and chemical-resistant gloves."

"Endangered Species - 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/espo](http://www.epa.gov/espo) before each season's use of this product.

"Treated [Seeds, Bulbs, Seed Pieces]: Do Not Use for Food, Feed, or Oil Purposes."

"After the [seeds, bulbs, or seed pieces] 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, bulbs or seed pieces] 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 the [seeds, bulbs or seed pieces]."

In addition for cotton, barley, oats, sugar beets and wheat, include the statement:

"Plant [cotton, barley, oats, sugar beets and wheat] seed a minimum of 1 inch deep."

**Note:** When using formulations that do not contain dye, to comply with 40 CFR 153.155, all seed treated with an economic poison must be colored to distinguish and prevent subsequent inadvertent use as a food for man or feed for animals.

**FOR TREATMENT OF CONIFEROUS SEED**

Damping-off protection: Use 2 quarts of this product per 100 pounds of seed. Slowly add to the seed while turning in a tumbler such as a concrete mixer. Tumble seed for approximately 2 minutes and then spread coated seed on a screen to dry.

**FOR THE TREATMENT OF ORNAMENTAL BULBS, CORMS AND TUBERS**

Treat any time after drying. Dip in a suspension made by mixing 1-1/2 pints of this product in 8 gallons of water. Agitate the suspension. If they are to be stored, spread out to dry.

**RECOMMENDATIONS FOR USE AS A COMMERCIAL SEED TREATMENT**

This product is a liquid fungicide recommended for the treatment of seeds listed in the following table. Used according to directions, this product will usually increase stands and yields by reducing losses from seed decay, damping-off and seedling blights caused by many seedborne and soilborne organisms. This product will usually control covered smuts or bunt of wheat, barley and rye and covered kernel smut of sorghum and will usually prevent basal rot and decay of ornamental bulbs and tubers. This product aids in the control of Alternaria and Phoma on canola. This product aids in the control of seedborne conidia produced from the honeydew inoculum from field infection of Gavilea africana (argot) on sorghum seed.

**For Slurry-Type Treater:** This product should be applied with water as a suspension in the slurry-type treater specifically designed and approved for this purpose.

**For Filmcoating Operations:** This product has demonstrated good to excellent compatibility with most commercial filmcoating products. Coating procedures identified by polymer/coating companies and filmcoating equipment manufacturers should be followed when preparing coating preparations containing this product. If it is desirable to prepare slurries in large containers for addition to the slurry tank, entire contents should be thoroughly agitated before withdrawing any of the slurry.
<table>
<thead>
<tr>
<th>SEEDS</th>
<th>Fluid Ounces (Per bushel or 100 pounds)</th>
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</thead>
<tbody>
<tr>
<td>Barley, Millet, Oats**, Rye, Sorghum, Triticale, Wheat</td>
<td>2.0 bu</td>
</tr>
<tr>
<td>Bean (Lima) and Peas</td>
<td>3.0/100 lb</td>
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<tr>
<td>Beans (Snap &amp; Dry, Soybeans, Cowpeas)</td>
<td>2.0/100 lb</td>
</tr>
<tr>
<td>Beet (Garden), Swiss Chard</td>
<td>8.0/100 lb</td>
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<tr>
<td>Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collards, Kale, Kohlrabi, Mustard, Turnip</td>
<td>8.0/100 lb</td>
</tr>
<tr>
<td>Canola**</td>
<td>6.4/100 lb</td>
</tr>
<tr>
<td>Cantaloupe, Cucumber, Pumpkin, Squash, Watermelon</td>
<td>4.5/100 lb</td>
</tr>
<tr>
<td>Carrot, Endive, Lettuce, Pepper, Radish, Spinach</td>
<td>8.0/100 lb</td>
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<tr>
<td>Castor bean**</td>
<td>4.5/100 lb</td>
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<tr>
<td>Chicory**</td>
<td>4.5/100 lb</td>
</tr>
<tr>
<td>Corn (Field)</td>
<td>1.5 bu</td>
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<tr>
<td>Corn (Sweet)</td>
<td>5.0/100 lb</td>
</tr>
<tr>
<td>Cotton, acid-delinted</td>
<td>4.5/100 lb</td>
</tr>
<tr>
<td>Cotton, ginned and fuzzy</td>
<td>4.5/100 lb</td>
</tr>
<tr>
<td>Eggplant</td>
<td>6.5/100 lb</td>
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<tr>
<td>Flax</td>
<td>3.0 bu</td>
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<tr>
<td>Grasses</td>
<td>8.0/100 lb</td>
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<tr>
<td>Okra</td>
<td>6.0/100 lb</td>
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<tr>
<td>Onion**</td>
<td>6.0/100 lb</td>
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<tr>
<td>Ornamental flower seed**</td>
<td>8.0/100 lb</td>
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<tr>
<td>Peanuts*</td>
<td>3.0/100 lb</td>
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<tr>
<td>Rice</td>
<td>1.5 bu</td>
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<tr>
<td>Safflower, Sunflower</td>
<td>2.0 bu</td>
</tr>
<tr>
<td>Sesame</td>
<td>3.0/100 lb</td>
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<tr>
<td>Small seed legume</td>
<td>3.0/100 lb</td>
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<tr>
<td>Sugar beet</td>
<td>8.0/100 lb</td>
</tr>
<tr>
<td>Tomato</td>
<td>5.0/100 lb</td>
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<tr>
<td>All other vegetable seeds**</td>
<td>9.0/100 lb</td>
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</tbody>
</table>

*Note: In the treatment of peanuts, do not dilute with water.

**Not registered for use in California.
Cotton Seed: The maximum application rate for cotton seed is 1.6 oz ai/100 lb (1,000 ppm). Plant treated cotton seed a minimum of 1 inch deep.
Barley Seed: Plant barley seed a minimum of 1 inch deep.
Oat Seed: Plant oat seed a minimum of 1 inch deep.
Sugar Beet Seed: Plant sugar beet seed a minimum of 1 inch deep.
Wheat Seed: Plant wheat seed a minimum of 1 inch deep.
Onion Seed: When 1.5 lbs ai/ct is used, the onion seed must undergo pelletized treatment.

FOR THE TREATMENT OF RICE SEED IN CALIFORNIA

This product is a liquid fungicide recommended for the treatment of rice seed in California.

Used according to directions, this product will usually increase stands and yields by reducing losses from seed decay, damping-off and seedling blights caused by seedborne and soilborne organisms.

This product is recommended for use on well-cured rice seed in California prior to pre-plant soaking. This product should be used with water as a suspension in treaters suitable for adequate mixing and accurate application to the seed. If it is desirable to prepare slurries in large containers for addition to treater tanks, entire contents should be thoroughly agitated before withdrawing any of the slurry for seed treatment.

How to Use: Rice seed treatment in California

Slurry Treaters:

<table>
<thead>
<tr>
<th>Treater Tank Concentration</th>
<th>Application Rate</th>
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</thead>
<tbody>
<tr>
<td>Mix 1 gallon of this product with 1 gallon of water</td>
<td>4 fluid ounces per 100 pounds of seed</td>
</tr>
</tbody>
</table>

Mist-O-Matic Treaters:

<table>
<thead>
<tr>
<th>Treater Tank Concentration</th>
<th>Application Rate</th>
</tr>
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<tbody>
<tr>
<td>Mix 1 gallon of this product with 1 gallon of water</td>
<td>4 fluid ounces per 100 pounds of seed</td>
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</table>

Note: To prevent water contamination in irrigation or drainage canals soak water should be retained in settling basins.
## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original containers only in a secured area inaccessible to children and unauthorized persons. Absorb spills onto clay, sand or vermiculite and hold for proper disposal. Protect from excessive heat. Keep from freezing.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinseate is 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 HANDLING:** (2.5 gallon plastic jugs): 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 rinseate into application equipment or a mix tank or store rinseate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available.

## WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED “AS IS” BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.**
LIMITATION OF LIABILITY

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BY WAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF ANY, OR FOR ANY DAMAGES OR Sums OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR ARISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS, TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

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STORAGE AND DISPOSAL
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