

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



# Flowsan™

## Seed Treatment

ACTIVE INGREDIENT:	
Thiram* (Tetramethylthiuram disulfide).....	44.04%
OTHER INGREDIENTS:.....	55.96%
TOTAL	100.0%

\*Equivalent to 4.0 lb Thiram per U.S. gallon

EPA Reg. No. 45728-28

EPA Est. No.

### Keep Out Of Reach Of Children CAUTION

FIRST AID	
<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 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>
<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, preferable mouth-to-mouth if possible.</li><li>◆ Call a poison control center or doctor for further 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. Remove contact lenses, 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 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>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For Emergencies involving a Spill, Leak, Fire, Exposure, or Accident, Contact: CHEMTREC at (800) 424-9300. For product usage information, phone Taminco, Inc., toll free at (800) 223-3258 from 9:00 AM to 5:00 PM Eastern time.	

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. 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. Avoid breathing spray mist or vapor.

## 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 (such as barrier laminate or butyl rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), neoprene rubber ( $\geq 14$  mils), polyvinyl chloride (PVC) ( $\geq 14$  mils), or Viton ( $\geq 14$  mils)), except when sewing bags of treated seed, and

\*Chemical resistant apron when mixing, loading, participating in dip treatments, cleaning up spills, cleaning equipment, or otherwise exposed to the concentrate.

**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.**

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.

### 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 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, birds, mammals, oysters, and shrimp. For terrestrial uses, 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 disposal of equipment washwaters or rinsate.

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 AND 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. 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 (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 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.

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, such as plants, soil, or water, is:

- \*Coveralls,
- \*Shoes plus socks,
- \*Chemical-resistant gloves made of any waterproof material, and
- \*Protective eyewear.

### **GENERAL PRODUCT INFORMATION**

When used as a seed treatment, Flowsan™ reduce seedling losses from seed decay, damping off and seedling blights.

Taminco, Inc.'s recommendations for the use of this product are based upon tests believed to be reliable. **FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, OR ILLEGAL RESIDUES.**

***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, seed pieces treated with thiram. When opening this bag or loading/pouring the treated seeds, bulbs, 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/espp> 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, 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, 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, seed pieces."

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

"Plant cotton, wheat, barley, oats, and sugar beet 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.

"This pesticide is toxic to fish, aquatic invertebrates, birds, mammals, oysters, and shrimp. Do not plant treated seeds, bulbs, seed pieces by broadcasting to the soil surface. Ensure that all planted seeds, bulbs, seed pieces are thoroughly covered with soil, especially in turn areas. If seeds, bulbs, seed pieces are not thoroughly incorporated by the planter during planting, additional incorporation may be required to thoroughly cover exposed seeds, bulbs, seed pieces. Do not apply to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate or by disposal of wastes."

### For Treatment of Coniferous Seed

**Damping-off protection:** Use 2 quarts of Flowsan™ per 100 lbs. 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 pts. of Flowsan™ in 8 gals. of water. Agitate the suspension. If they are to be stored, spread out to dry.

### Recommendations for use as a Commercial Seed Treatment

Flowsan™ is a liquid fungicide recommended for the treatment of seeds listed in the following table. Used according to directions, Flowsan™ will usually increase stands and yields by reducing losses from seed decay, damping-off and seedling blights caused by many seedborne and soilborne organisms. Flowsan™ 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. Flowsan™ aids in the control of *Alternaria* and *Phoma* on canola. Flowsan™ aids in the control of seedborne conidia produced from the honeydew inoculum from field infection of *Claviceps africana* (ergot) on sorghum seed.

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

**For Filmcoating Operations:** Flowsan™ has demonstrated good to excellent compatibility with most commercial filmcoating products. Coating procedures identified by polymer/ coating companies and film-coating equipment manufacturers should be followed when preparing coating preparations containing Flowsan™. 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.

### FLOWSAN™ Treating Rates

SEEDS	FLUID OUNCES FLOWSAN per bu. or 100 lbs.
Barley, Millet, Oats **, Rye, Sorghum, Triticale, Wheat	2.0/ bu.
Bean (Lima) and Peas	3.0/ 100 lbs.
Beans (Snap & Dry, Soybeans, Cowpeas)	2.0/ 100 lbs.
Beet (Garden), Swiss Char d	8.0/ 100 lbs.
Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collards, Kale, Kohlrabi, Mustard, Turnip	8.0/ 100 lbs.
Canola **	6.4/ 100 lbs.
Cantaloupe, Cucumber, Pumpkin, Squash, Watermelon	4.5/ 100 lbs.
Carrot, Endive, Lettuce, Pepper, Radish, Spinach	8.0/ 100 lbs.
Castor bean **	4.5/ 100 lbs.
Chicory **	4.5/ 100 lbs.
Corn (Field)	1.5/ bu.
Corn (Sweet)	5.0/100 lbs.
Cotton, acid-delinted	4.5/100 lbs.
Cotton, reginned and fuzzy	4.5/100 lbs.
Eggplant	6.5/100 lbs.
Flax	3.0/ bu.
Grasses	8.0/ 100 lbs.
Okra	6.0/100 lbs.
Onion **	6.0/100 lbs.
Ornamental flower seed**	8.0/100 lbs.
Peanuts *	3.0/100 lbs.
Rice	1.5/ bu
Safflower, Sunflower	2.0/ bu
Sesame	3.0/100 lbs.
Small seed legume	8.0/100 lbs.
Sugar beet	8.0/100 lbs.
Tomato	6.0/100 lbs.
All other vegetable seeds**	8.0/100 lbs.

\*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/cwt (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/cwt is used, the onion seed must undergo pelletized treatment

### **For the Treatment of Rice Seed in California**

Flowsan™ is a liquid fungicide recommended for the treatment of rice seed in California.

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

Flowsan™ is recommended for use on well cured rice seed in California prior to pre-plant soaking. Flowsan™ 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:**

##### **Treater Tank Concentration**

Mix 1 gallon of Flowsan™ with 1 gallon of water

##### **Application Rate**

4 oz. per 100 lbs. seed

#### **Mist-o-matic Treaters:**

##### **Treater Tank Concentration**

Mix 1 gallon of Flowsan™ with 1 gallon of water

##### **Application Rate**

4 oz. per 100 lbs. seed

**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 and 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. Keep container closed when not in use. Do not store near food or feed. Stir 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.

**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  $\frac{1}{4}$  full with water and recap. Shake for 10 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. Offer for recycling, if available.

**Container Handling (Polyethylene drums):** 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. Fill the container  $\frac{1}{4}$  full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 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. 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 Schutz Ticket Service at (908)595-9625 or [www.schuetz.net/ticket](http://www.schuetz.net/ticket).

## TERMS OF SALE OR USE

On purchase of this product, buyer and user agree to the following conditions:

**Warranty:** To the extent permitted by applicable law, Taminco, Inc. makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Except as so warranted, the product is sold as is. To the extent permitted by applicable law, buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

**Damages:** Buyer's or user's exclusive remedy for damages for breach of warranty or negligence shall be limited to direct damages not exceeding the purchase price paid and shall not include incidental or consequential damages.

**For Emergencies Involving a Spill, Leak, Fire, Exposure, or Accident, contact: CHEMTREC at (800) 424-9300. For product usage information, phone Taminco, Inc., toll free at (800) 223-3258 from 9:00 AM to 5:00 PM Eastern time. For Other Emergencies, phone (800) 223-3258.**

Flowsan™ is a trademark of Taminco N.V., a Belgian company.

**MANUFACTURED FOR:**



**Taminco, Inc.  
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Suite 1900  
Atlanta, GA 30339**

**NET WEIGHT:**