

45728-28

04/11/2007

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Reg. Number:

Date of Issuance:

45728-28

APR 11 2007

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance: Conditional

Name of Pesticide Product:

Flowsan

Name and Address of Registrant (include ZIP Code):

Taminco, Inc. c/o Vince J. Piccirillo, Ph.D.
1303 Boyd Avenue, NW VJP Regulatory Consulting Inc.
Smyrna, GA 30318 21320 Sweet Clover Place
Ashburn, VA 20147

Note: 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.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/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.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA Section 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for re-registration of your product under FIFRA Section 4.
2. Before releasing the product for shipment revise the EPA Registration Number to read, "EPA Reg. No. 45728-28" to your label before you release the product for shipment.
3. Of important note, though found acceptable, the submitted Acute Oral toxicity study protocol OECD 401 is incorrect, the Agency prefers the protocol OECD 425: Acute Oral Toxicity-Up-and-Down Procedure.

Signature of Approving Official:

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Cynthia Giles-Parker
Branch Chief
Fungicide Branch
Registration Division (7505P)

Date:

APR 11 2007

4. By June 5, 2007, the registrant is required to submit a copy of the HPLC-UV enforcement analytical method developed for this formulated product to:

EPA Analytical Laboratory
701 Mapes Road
Ft. Meade, MD 20755-5350

5. The acute inhalation data waiver request is denied. It is agreed that a viscous liquid is less likely to be inhaled but the product may be diluted with water which will increase the volatility. Additionally, the treatment methods are not limited to close systems, thereby indicating a potential for inhalation exposure. We will register this product on the condition(s) that an acceptable acute toxicity test be submitted or cited on or by April 12, 2008, and that the appropriate respiratory language (as specified in items 5a, and 5b.) be added to the Personal Protective Equipment requirements.
- a. To the PPE subsection "All mixers, loaders..." guidance is to be added requiring respirator usage as follows or variation thereof: "NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P, or HE pre-filter; for exposures outdoors, a NIOSH approved respirator with any N, R, P or HE filter."
 - b. The subsection to follow the foregoing, beginning with "Note:" must appear in bold type face as "Note:," to improve label's legibility and consistency.
6. "Environmental Hazards" section of the label must be revised to read: "This pesticide is toxic to fish, aquatic invertebrates, birds, mammals, oysters, and shrimp." To attain consistency among similar statements, substitute the foregoing to page 4, which is to replace the sentence "Treated ...birds and mammals." This revision will improve label consistency and legibility.
- a. Append the phrase "For terrestrial uses" to the second sentence of "Environmental Hazards" section, on page 2.
 - b. On page 4, following the sentence "Treated ...birds and mammals" insert an open bracket to enclose "seed." To the third sentence, insert open bracket to enclose "seeds."
7. Beginning on page 4 of the label, excessive spacing becomes apparent, throughout the label ensure spacing as such is desired and does not compromise label's legibility.
8. To the final section of page 4, in the first sentence, revise the reference "21 CFR..." to "40 CFR 153.155."
9. On page 5 of the label, bold type face is to be used for the subsection heading "For film coating operations:"
10. To the table that follows, ensure adequate spacing between the preceding section and the table to sufficiently accommodate its column headings.
- a. Append double asterisks (**) to follow the referenced use sites: "Oats, and Castor bean." These uses refer to unregistered uses in California.
 - b. The application rate recommended for "Tomato" must be changed from "8.0/100 lbs" to "6.0/100 lbs."
11. "Storage and Disposal" subsection "Pesticide Storage" must include: "Keep container closed when not in use. Do not store near food or feed. Stir before use."

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12. Under the "Warranty" section, its first and final sentences must be appended by:
"To the extent permitted by applicable law...." As currently written the statement negates and/or detracts from labeling requirements as set forth by the Agency in 40 CFR Part 156, and is, therefore, considered misbranding.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release of the shipment of your product constitutes acceptance of these conditions.

A copy of the label stamped "Accepted with Comments" is enclosed for your records.

Enclosure

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

TAMINCO
molecules & molecules



Flowsan™

Seed Treatment

ACTIVE INGREDIENT:		
Thiram* (Tetramethylthiuram disulfide).....	42.64%	42.64%
OTHER INGREDIENTS.....	57.36%	57.36%
TOTAL	100.0%	100.0%

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

EPA Reg. No. 45728-xx

EPA Est. No.

Keep Out Of Reach Of Children

CAUTION

FIRST AID	
IF SWALLOWED	<ul style="list-style-type: none"> ◆ Call a poison control center or doctor immediately for treatment advice. ◆ Have person sip a glass of water if able to swallow. ◆ Do not induce vomiting unless told to do so by a poison control center or doctor. ◆ Do not give anything by mouth to an unconscious person.
IF IN EYES	<ul style="list-style-type: none"> ◆ 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. ◆ Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> ◆ 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.
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) 426-3820 from 9:00 AM to 5:00 PM Eastern time.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. 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.

ACCEPTED
with COMMENTS
In EPA Letter Dated

APR 11 2001

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No. 45728-28

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 (≥14 mils), nitrile rubber (≥14 mils), neoprene rubber (≥14 mils), polyvinyl chloride (PVC) (≥14 mils), or Viton (≥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, 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, 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 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 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.

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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.

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

"Endangered Species - This bag contains seed treated with thiram. 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."

Seed, Bulbs, Seed Pieces that are treated with this product and are then packaged or bagged for future use by growers or researchers must contain the following labeling on the outside of the seed, bulb, seed piece 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."

"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]."

Seed, bulbs, seed pieces that are treated with this product and are then packaged or bagged for future use by homeowners or other residential users must contain the following labeling on the outside of the seed, bulb, seed piece package or bag:

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

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

"Treated [seeds, bulbs, seed pieces] are hazardous to fish, birds and mammals. 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."

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 21 CFR Chapter 1, Section 2.25, 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 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 organic 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 compatability 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.

SEEDS	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 Chard	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	8.0/100 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.

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For the Treatment of Rice Seed in California

Flowsan™ is a liquid organic 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	Application Rate
Mix 1 gallon of Flowsan™ with 1 gallon of water	4 oz. per 100 lbs. seed

Mist-o-matic Treaters:

Treater Tank Concentration	Application Rate
Mix 1 gallon of Flowsan™ with 1 gallon of water	4 oz. per 100 lbs. seed

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

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STORAGE AND DISPOSAL

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

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 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 incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

TERMS OF SALE OR USE

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

Warranty: 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. 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) 426-3820 from 9:00 AM to 5:00 PM Eastern time. For Other Emergencies, phone (800) 426-3820.

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

MANUFACTURED FOR:



Taminco, Inc.
1950 Lake Park Drive
Smyrna, GA 30080

NET WEIGHT:

Draft, not EPA approved. September 13, 2006