

OCT 10 1996

Mr. Dennis L. McFadden  
Gustafson, Inc.  
P.O. Box 560065  
Dallas, TX 75266 0065

Dear Mr. McFadden:

Subject: Gustafson 42-S Thiram  
EPA Registration No. 7501-14  
Application Dated September 25, 1996, Request To  
Add Use-Patterns for Ornamental Flower Seed,  
Canola Seed and Chicory Seed

The proposed added use-patterns for treatment of ornamental flower, canola and chicory seed have been reviewed and found acceptable for registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as amended, provided that you:

- o Submit one (1) copy of the final printed label reflecting the subject new use-sites before releasing the product for shipment.

If this condition is not complied with, the registration will be subject to cancellation in accordance with FIFRA, section 6(e). Your release for shipment of the product constitutes acceptance of this condition.

A stamped copy of the labeling is enclosed for your records.

Sincerely yours,

Joanne I. Miller  
Product Manager (23)  
Fungicide-Herbicide Branch  
Registration Division (7505C)

Enclosure

E. Wilson: Diskette ABC12: 10-09-96							
CONCURRENCES							
SYMBOL							
SURNAME							
DATE							

2/4  
RECD EPA/OPP/DPDI

96 OCT -1 AM 2:5

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

OCT 10 1996

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended. See the pesticide  
registered under EPA Reg. No.  
7501-14

# Gustafson 42-S Thiram Fungicide

**ACTIVE INGREDIENT:**  
Thiram (Tetramethylthiuram disulfide)..... 42%  
**INERT INGREDIENTS:**..... 58%  
Contains 4 pounds thiram per gallon.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**  
**STATEMENT OF PRACTICAL TREATMENT**  
**IF SWALLOWED:** Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat. Do not induce vomiting or give anything by mouth to an unconscious person.  
**IF IN EYES:** Flush with plenty of water. Call a physician if irritation persists.  
**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention.  
  
See additional precautionary statements.

EPA Reg. No. 7501-14      U.S. Pat. 4,372,080

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND  
DOMESTIC ANIMALS  
CAUTION**  
Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Consumption of alcoholic beverages increases the toxic effects of thiram. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.  
**PERSONAL PROTECTIVE EQUIPMENT:**  
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 resistant category selection chart. Applicators and other handlers (other than mixers and loaders) must wear: long-sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, and Viton, and shoes plus socks and protective eyewear. Mixers and loaders must wear: long-sleeved shirt and long pants,

chemical-resistant gloves, such as, barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride and Viton, and shoes plus socks and protective eyewear; for exposures in enclosed areas, a respirator with either an organic vapor-removing cartridge with prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G); for exposures outdoors, dust/mist respirator (MSHA/NIOSH approval number prefix TC-21C). 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.

**ENVIRONMENTAL HAZARDS**  
This pesticide product is toxic to fish. Do not contaminate water by cleaning of equipment or disposal of wastes. Drift or runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark.

**STORAGE AND DISPOSAL**  
Do not contaminate water, food or feed by storage or disposal.  
**1. STORAGE**--Store in a cool place. Keep container tightly closed to prevent evaporation. Stir before using. DO NOT SUBJECT TO TEMPERATURES BELOW 32°F.  
**2. PROHIBITIONS**--Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.  
**3. 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 Hazardous Waste representative at the nearest EPA Regional Office for guidance.  
**4. 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.



**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.

**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. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours. Exception: if the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated. 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, waterproof gloves, and shoes plus socks and protective eyewear.

**For Treatment of Coniferous Seed**

**Damping-off protection:** Use 2 quarts of GUSTAFSON 42-S Thiram 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 and Tubers**

Treat any time after drying. Dip in a suspension made by mixing 1-1/2 pts. of Gustafson 42-S Thiram in 8 gals. of water. Agitate the suspension. If bulbs are to be stored, spread out to dry. Bulbs or tubers that are treated with this product must bear distinct labeling that instructs:

**CAUTION:** Treated with thiram. Wear rubber gloves and protective clothing when handling products treated with thiram. Direct exposure to skin may result in severe dermatitis.

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

Gustafson 42-S Thiram Fungicide is a liquid organic fungicide recommended for the treatment of seeds listed in the following table. Used according to directions, Gustafson 42-S Thiram will usually increase stands and yields by reducing losses from seed decay, damping-off and seedling blights caused by many seedborne and soilborne organisms. Gustafson 42-S Thiram 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. Gustafson 42-S Thiram aids in the control of *Alternaria* and *Phoma* on canola.

For Slurry-Type Treater: Gustafson 42-S Thiram should be applied with water as a suspension in the slurry-type treater specifically designed and approved for this purpose. For film-coating operations: Gustafson 42-S Thiram has demonstrated good to excellent compatibility with most commercial film-coating products. Coating procedures identified by polymer/coating companies and film-coating equipment manufacturers should be followed when preparing coating preparations containing Gustafson 42-S Thiram. 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	Gustafson 42-S Thiram Treating Rate Fl. Oz. Per Bu. or 100 lbs. Weight
Barley, Millet, Oats, Rye, Sorghum, Triticale, Wheat	2 / bu.
Beans (Lima) and Peas	3 / 100 lbs.
Beans (Snap & Dry, Soybeans, Cowpeas)	2 / 100 lbs.
Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collards, Kale, Kohlrabi, Mustard, Turnip	8 / 100 lbs.
Beet (Garden), Swiss Chard	8 / 100 lbs.
Canola	6.4/100 lbs.
Cantaloupe, Cucumber, Pumpkin, Squash, Watermelon	4.5/100 lbs.
Carrot, Endive, Lettuce, Pepper, Radish, Spinach	8 / 100 lbs.
Castor beans	4.5/100 lbs.
Chicory	5.2 / 100 lbs.
Corn (Field)	1.5/ bu.
Corn (Sweet)	5 / 100 lbs.
Eggplant	6.5/100 lbs.
Cotton - acid - delinted	4.5/100 lbs.
Cotton - reginned and fuzzy	4.5 / 100 lbs.
Flax	3 / bu.
Grasses	8 / 100 lbs.
Okra	6 / 100 lbs.
Onion	6 / 100 lbs.
Ornamental flower seed	8 / 100 lbs.
Peanuts*	3 / 100 lbs.
Rice	1.5 / bu.
Safflower, Sunflower	2 / bu.
Sesame	3 / 100 lbs.
Small seed legumes	8 / 100 lbs.
Sugar beets	8 / 100 lbs.
Tomato	6 / 100 lbs.

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

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

Gustafson 42-S Thiram Fungicide is a liquid organic fungicide recommended for the treatment of rice seed in California. Used according to directions, Gustafson 42-S Thiram will usually increase stands and yields by reducing losses from seed decay, damping-off and seedling blights caused by seedborne and soilborne organisms. Gustafson 42-S Thiram is recommended for use on well cured rice seed in California prior to pre-plant soaking. Gustafson 42-S Thiram 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 Gustafson 42-S with 1 gallon of water	4 oz. per 100 lbs. seed

**MIST-O-MATIC TREATER:**

Treater Tank Concentration	Application Rate
Mix 1 gallon of Gustafson 42-S 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.

**Do not use treated seed for food or feed.**

**LABEL TREATED SEED—**"This seed treated with thiram fungicide (Gustafson 42-S Thiram). Do not use for food, feed or oil purposes."

**USE PRECAUTION -** When using formulations that do not contain dye, to comply with 21 CFR Chapter 1, Section 2.25, all grain 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.

**NOTICE - READ CAREFULLY  
CONDITIONS OF SALE AND LIMITED WARRANTY  
STATEMENT**

Treatment of highly mechanically damaged seed, or seed of known low vigor and poor quality, may result in reduced germination and/or reduction of seed and seedling vigor. Treat and conduct germination tests on a small portion of seed before committing the total seed lot to a selected chemical treatment. Due to seed quality conditions beyond the control of Gustafson, Inc., no claims are made to guarantee germination of carry-over seed.

As its sole express warranty, Gustafson, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for purposes stated on the label only when used in accordance with directions and instructions specified on the label, subject to the inherent risks set forth above. **ONLY AS PERMITTED BY APPLICABLE LAW, IN THE EVENT OF A BREACH OF THIS LIMITED WARRANTY, GUSTAFSON, INC. SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES. SUBJECT TO APPLICABLE LAW, GUSTAFSON, INC. NEITHER MAKES NOR AUTHORIZES ANY OF ITS AGENTS OR REPRESENTATIVES TO MAKE ANY WARRANTY OF FITNESS OR MERCHANTABILITY, GUARANTY OR REPRESENTATION, EXPRESS OR IMPLIED, CONCERNING THIS MATERIAL.** Buyer assumes the responsibility to handle, use and store this product in accordance with the safety instructions and use directions contained on the label.

Buyer/User purchases this product subject to the foregoing Conditions of Sale and Limited Warranty, which, subject to applicable law, may be varied only by a written agreement signed by a duly authorized representative of Gustafson, Inc. If these terms are not acceptable, return all products to the place of purchase, unopened for a full refund.

A quality product manufactured by:  
**Gustafson, Inc.**  
1400 Preston Road, Suite 400  
Plano, Texas 75093  
(214) 985-8877

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Net Contents: \_\_\_\_\_ Gallons

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