

67727-3

10/26/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

D-I-1-4, Division of 1,4Group, Inc.  
c/o Amy Plato Roberts  
Technology Sciences Group, Inc.  
712 Fifth Street, Suite A  
Davis, CA 95616

OCT 26 2012

Subject: Registration Amendments to expand the tolerance exemption to all sprouting root, tuber, and bulb crops for the active ingredient, 1,4-dimethylnaphthalene (1,4-DMN), and add all sprouting root, tuber, and bulb crops to the product labels.  
1,4Sight (EPA Reg. No. 67727-1)  
1,4Seed (EPA Reg. No. 67727-3)  
1,4Ship (EPA Reg. No. 67727-4)  
Your submissions dated November 4, 2011, April 26, 2012, and May 15, 2012  
Decision Numbers: 454564, 454567, and 454568, PRIA Category B631

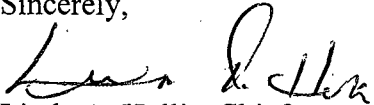
Dear Ms. Roberts:

The amendments referred to above submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) section 3(c)(5), are acceptable provided that you:

- 1) Submit and/or cite all data required for registration/reregistration of your products under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
- 2) Submit two (2) copies of your final printed labeling before you release the products for shipment. Final printed labeling means the label or labeling of the products when distributed or sold. Clearly legible reproductions or photo reductions will be accepted for unusual labels, such as those silk-screened directly onto glass or metal containers or large bags or drum labels.

If these conditions are not complied with, the registrations will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the products bearing the amended labeling constitutes acceptance of these conditions. Stamped copies of the labels are enclosed for your records. Should you have any questions, you may contact Mr. Colin Walsh directly at (703) 308-0298 or via email at [walsh.colin@epa.gov](mailto:walsh.colin@epa.gov).

Sincerely,

  
Linda A. Hollis, Chief  
Biochemical Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511P)

# 1,4SEED®

(Alternate Brand Name: "1,4SIGHTI")

**Aerosol Grade – (Seed Potato) (Root, Tuber and Bulb (Crop)) Dormancy Enhancer**

**Active Ingredient:** 1,4-Dimethylnaphthalene\* ..... 98.4%  
**Other Ingredients:** ..... 1.6%  
**TOTAL** ..... 100.0%

\*Contains 8.3 pounds active ingredient per gallon.

## ACCEPTED

OCT 26 2012

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 67727-3

### KEEP OUT OF REACH OF CHILDREN WARNING

#### PRECAUTIONARY STATEMENTS

**Hazards to Humans and Domestic Animals – WARNING:** Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through skin. Do not get in eyes or on clothing. Wear protective eyewear (goggles or face shield). Avoid contact with skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**Environmental Hazards:** This product is highly toxic to freshwater fish and aquatic invertebrates. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

#### FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

<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.</li> <li>• 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 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 to an unconscious person.</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>

#### EMERGENCY INFORMATION

For spill, leak, fire, exposure or accident call PERS 1-800-633-8253.

**Net Contents:** \_\_\_\_\_  
(Lot No./Batch No.: \_\_\_\_\_)

**Manufactured for:**  
D-I-1-4, Inc., a division of 1,4Group, Inc.  
P.O. Box 860  
Meridian, ID 83680 USA

**EPA Reg. Number:** 67727-3  
**EPA Est. Number:** XXXXX-XXX-XXX  
(Product of Japan)

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

### NOTICE

- 1,4SEED® is used as an aerosol to enhance the dormancy of seed potatoes and other root and tuber crops, bulb crops, and ornamental flowering bulbs prior to germination.
- Applicators and other handlers must wear: long-sleeved shirt, long pants, shoes, socks, protective eyewear (goggles or face shield), and chemical resistant (such as nitrile or butyl) gloves.
- For reentry into treated areas during application and prior to ventilation or settling of aerosol fog, workers must wear: coveralls over long-sleeved shirt, long pants, shoes plus socks, and chemical resistant (such as nitrile or butyl) gloves; face-sealing goggles, unless a full-face respirator is worn; and a respirator with an organic vapor-removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter.
- 1,4SEED® must not be applied to potatoes or other root and tuber crops, bulb crops, or ornamental flowering bulbs in the field.
- 1,4SEED® may be applied anytime after the potatoes or other root and tuber crops, bulb crops, or ornamental flowering bulbs are placed into the storage area.
- Do not allow vapors to come in contact with storage areas used for seed potatoes or other root and tuber crops, bulb crops, or ornamental flowering bulbs within 30 days of their planting.

### CROPS

1,4SIGHT® is effective on the following sprouting root and tuber crops:

- Beet
- Carrot
- Cassava
- Dasheen (taro)
- Ginger
- Ginseng
- Horseradish
- Parsnip
- Potato
- Sweet potato
- Turnip
- Yam

1,4SIGHT® is effective on the following sprouting bulb crops:

- Garlic
- Leek
- Onion
- Shallot

1,4SIGHT® is effective on the following sprouting ornamentals:

Flowering bulbs

**FORCED AIR DISTRIBUTION METHOD**

1. Prepare aerosol generating equipment. The discharge from the vaporizer should be located to provide optimum distribution in the storage area. Take precautions to prevent the spray from coming into direct contact with the potatoes or other root and tuber crops, bulb crops, or ornamental flowering bulbs.
2. Running fans during the application may aid disbursement of vapors, but it is not required.
3. It is advantageous to keep the storage area closed as long as practical to allow for maximum absorption into the potatoes or other root and tuber crops, bulb crops, or ornamental flowering bulbs.

**TREATMENT OF STORAGE AREAS THAT DO NOT HAVE RECIRCULATING AIR SYSTEMS**

These storage areas are more difficult to treat. Additional steps must be taken to treat these storage areas.

1. Prepare aerosol generating equipment. The discharge from the vaporizer should be located to provide optimum distribution in the storage area. Take precautions to prevent the spray from coming into direct contact with the potatoes or other root and tuber crops, bulb crops, or ornamental flowering bulbs.
2. Completely close off the area to be treated. This may include vent doors in the attic and walk doors around the perimeter. The large truck doors may need to be sealed to prevent excess leakage.
3. Begin the treatment by following the listed steps:
  - A. Start the aerosol generator.
  - B. Adjust the location of the vaporizer so all the storage area receives an equal amount of aerosol fog. It may be necessary to move the vaporizer during the application or make the application in multiple phases. For reentry into treated areas during application and prior to ventilation or settling of the aerosol fog, workers must wear: coveralls over long-sleeved shirt, long pants, shoes plus socks, and chemical resistant (such as nitrile or butyl) gloves; face-sealing goggles, unless a full-face respirator is worn; and a respirator with an organic vapor-removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter.
4. Wait at least 12 hours before fresh air is introduced into the storage area, then return the storage area to "normal" operation.
5. It is advantageous to keep the storage area closed as long as practical to allow for maximum absorption into the potatoes or other root and tuber crops, bulb crops, or ornamental flowering bulbs.

**APPLICATION TIMING AND RATES**

Application of 1,4SEED® can be made anytime after the potatoes or other root and tuber crops, bulb crops, or ornamental flowering bulbs are placed in the storage area.

1. Apply at rates of up to 1 pound of active ingredient per 50,000 lbs (500 cwt), which is equivalent to 20 ppm on a product to crop basis or 1 gallon per 4,000 cwt.
2. While potatoes or other root and tuber crops, bulb crops, or ornamental flowering bulbs may be retreated as necessary for effective control, do not exceed the maximum application of 80 ppm during the storage season.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE**

Keep container closed. This product temporarily inhibits germination of seed potatoes and other root, tuber and bulb crops.

**PESTICIDE DISPOSAL**

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER HANDLING**

Nonrefillable container. Do not reuse or refill this container. Triple rinse (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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

**CONDITIONS OF SALE**

1,4Group, Inc. warrants that the product conforms to its chemical description and is reasonable fit for the purpose stated on the label when used in accordance with directions under normal conditions of use; but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to manufacturer, and buyer assumes the risk for any such use. To the extent consistent with applicable law, 1,4GROUP, Inc. makes no other warranties, express or implied, warranty of merchantability or the implied warranty of fitness for a particular purpose, that extend beyond the statements made on this label. To the extent consistent with applicable law, 1,4GROUP, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability, or otherwise, shall not exceed the purchase price paid or, at 1,4GROUP, Inc.'s election, replacement of the product.

**Optional Label Claims:**

*Application timing and rates optional conversion information:*

1 cwt. = 100 lbs = 2.5 cubic feet; 1 ton = 20 cwt.

*Product benefits:*

- Biochemical delays sprouting, so smaller (buds) (sprouts) on (potatoes) (root and tuber crops) (bulb crops) (and) (ornamental flowering bulbs) (and other sprouting crops).
- Enhances the (potato's) (onion's) (tuber's) (bulb's) ability to heal cuts and bruises.
- Reduces respiration, resulting in less water loss.
- Reduces refrigeration and ventilation needs.
- Reduces pressure bruising.
- Firmer (potatoes) (onions) (bulbs) with improved visual appearance.