

PM92

5905-530

11/12/99

1 of 6



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Biopesticides and Pollution Prevention Division (7511W)
401 M Street, S.W.
Washington, DC 20460

EPA Reg. Number:

5905-530

Date of Issuance:

NOV 12 1999

NOTICE OF PESTICIDE:

X

Registration

 Reregistration

(under FIFRA, as amended)

Term of Issuance: Conditional

Name of Pesticide Product:

Histick N/T

Name and Address of Registrant (include ZIP Code):

Helena Chemical Co.
6075 Poplar Ave., Suite 500
Memphis, TN 38119

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)(5) provided you:

1. Submit and /or cite all data required for registration/reregistration of your product under FIFRA Sec.3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA Sec.4.
2. Revise the EPA Registration Number to read, "EPA Reg. No. 5905-530".
3. The Confidential Statement of Formula dated Nov. 10, 1999 is acceptable.

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

Signature of Approving Official:

Date:

11/12/99

EPA Form 8570-6

Allen
11/10

HUTTON
11/10

~~Enclosure~~

HISTICK N/T

A UNIQUE SEED APPLIED STERILE CO-INOCULANT, CONSISTING OF A HIGH QUALITY RHIZOBIAL INOCULANT WITH A PATENTED BIOLOGICAL FUNGICIDE FOR USE ON SOYBEANS, ALFALFA, BEANS (DRY/SNAP), AND PEANUTS

ACTIVE INGREDIENT:

Bacillus subtilis, MBI 600 (not less than 2 x 10⁸ viable spores per gram) 0.001%

OTHER INGREDIENTS: 99.999%

TOTAL 100.000%

Contains a minimum of 2 x 10⁹ viable rhizobial cells/gram acting as a rhizobial inoculant, and 2 x 10⁸cfu/g *Bacillus subtilis* acting as a biofungicide.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements inside booklet.

EPA Reg. No.: 5905-
EPA Est. No.: 71840-GBR-001

NET CONTENTS: 14 Oz. (400g)

**MANUFACTURED FOR:
HELENA CHEMICAL COMPANY
MEMPHIS, TN 38119**

ACCEPTED

NOV 12 1999

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 5905-520



**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Causes skin irritation. Avoid contact with eyes, skin or clothing. In case of contact, flush affected area with plenty of water. Repeated or prolonged excessive exposure may lead to sensitization of skin and lungs in susceptible individuals.

FIRST AID

If on Skin: Wash with plenty of soap and water. Get medical attention if irritation persists.
If in Eyes: Flush eyes with plenty of water. Get medical attention if irritation persists.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear: A long-sleeved shirt and long pants; waterproof gloves, shoes plus socks; protective eyewear.

For exposures in enclosed areas: A respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

For exposures outdoors: Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems in a manner that meets the requirements listed in the Worker Protection Standard (WPS for agricultural pesticides, [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified by WPS.

USER SAFETY RECOMMENDATIONS

Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

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. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Cover or incorporate spilled seed or seed on soil surface.

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 regulations.

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 12 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
- shoes plus socks
- protective eyewear

STORAGE AND DISPOSAL

STORAGE: Store the product below 77°F away from direct sunlight. Under no circumstances allow storage temperatures to exceed 86°F for long periods of time. Keep inoculant and inoculated seed in a cool place out of direct sunlight, and sow as soon as possible. If not sown within 24 hours, the seeds must be reinoculated.

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

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticides, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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

CONTAINER DISPOSAL: Completely empty package into application equipment. Then dispose of package in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke. Dispose of box in the same manner. Do not reuse package or box.

GENERAL INFORMATION

HiStick N/T is a ready-to-use seed treatment. HiStick N/T has been formulated to provide high numbers of an effective nitrogen fixing bacteria, and a unique isolate of the bacterium *Bacillus subtilis* (strain MBI600) which suppresses fungal root disease organisms such as *Fusarium*, *Rhizoctonia*, and *Aspergillus*. The MBI600 bacteria extend along the developing root system, promoting more effective nodulation by its nitrogen fixing partner, resulting in a more uniform stand with greater yield potential.

HiStick N/T is hermetically sealed: After opening pack, squeeze gently to disperse contents. HiStick N/T can be applied using any of the following methods.

SLURRY INOCULATION(any type of legume seed). Add the contents of the pack to 800 ml. water and stir well in a clean container. Pour inoculant suspension onto seed and mix thoroughly to ensure all seed is evenly coated. Allow seed to dry before placing in seed hopper.

DAMP INOCULATION (medium to large seeded legumes). Apply just enough water to slightly dampen the seed (approx. 2 ml/kg of seed). Mix the dampened seed thoroughly with the inoculant so that the seeds are evenly coated.

DRY INOCULATION (large legume seed, e.g., peas/beans). Layer correct amount of inoculant onto thin layers of seed in the drill hopper, and mix thoroughly by hand.

TREATED SEED: HiStick N/T is compatible with Vitavax*M and other seed treatments based on carboxin, metalaxyl, captan, thiram, and thiabendazole. Allow all pesticide seed treatments to fully dry before inoculation with HiStick N/T.

APPLICATIONS

SOYBEANS: For Suppression of root diseases caused by *Rhizoctonia* and *Fusarium*, and for improved rhizobial nodulation.

For Conventional Till:

- **Single Rate (1X)** - This pack will treat 8 bushels (500 lbs) of soybean seed. Use this rate on old rotated land with non-treated or pesticide treated seed (allow pesticide to dry before HiStick N/T application).

For Conventional, Minimum and No-Till:

- **Double Rate (2X)** - This pack will treat 4 bushels (250 lbs) of soybean seed. Use this rate on new soybean land, with non-pesticide treated seed.
- **Quadruple Rate (4X)** - This pack will treat 2 bushels (125 lbs) of soybean seed. Use this rate on new soybean land, with pesticide treated seed (allow pesticide to dry before HiStick N/T application).

ALFALFA: For Suppression of root diseases caused by *Rhizoctonia* and *Fusarium*, and for improved rhizobial nodulation.

This pack treats 100 lbs. (2 x 50 lb. bags) of alfalfa seed. Under adverse planting conditions (hot/dry soils), double rate HiStick N/T application is advisable.

For closed planting equipment such as drills, HiStick N/T may be applied directly to the alfalfa seed. Layer HiStick N/T inoculant onto dry seed in the drill. Mix thoroughly so that each seed is coated.

In open, free-falling planting systems, such as aerial seeding, HiStick N/T's built-in sticker must be maximized by slurry application with water. In this rapid method, mix the 14 oz. packet of product with 2-3 pints of cool, clean water to form a smooth slurry. Apply this slurry to 100 lbs. alfalfa seed so that seeds are evenly coated. Mixing and dry-down are fast. Once seeds are evenly coated, STOP - do not over-mix.

Hydro seeding is the method of planting through fertilizer/lime solution. This method of plant-

ing is very harsh on the seed and the inoculant. To give greatest assurance of maintaining seed germination and inoculant visibility, you should (A) Ensure the solution is no lower than pH 5.0. Lower pH's are destructive to the inoculant. (B) Mix double HiStick N/T inoculant rate (14 oz/50 lbs. of alfalfa seed) to above solution A. (C) Apply the fertilizer/lime/inoculant/seed mix as soon as possible, within 2-3 hours.

DRY/SNAP BEANS (NAVY, KIDNEY, PINTO, GREAT NORTHERN, CRANBERRY, PINK AND BLACK TURTLE, SNAP & STRING BEANS) (*PHASEOLUS VULGARIS*):
For Suppression of root diseases caused by *Rhizoctonia* and *Fusarium*, and for improved rhizobial nodulation.

This pack treats 200 lbs. of *Phaseolus* seed and can be applied to the seed with or without water. The product is hermetically sealed and after opening pack, squeeze to disperse contents. Pour the inoculant directly onto the seed in the drill box and mix gently to disperse.

PEANUTS:

For Suppression of root diseases caused by *Rhizoctonia*, *Fusarium* and *Aspergillus*, and for improved rhizobial nodulation.

This pack treats 200 lbs. of peanut seed. Some growers have increased yields by using higher application rates - higher doses will not adversely affect the crop. A double rate application is advisable under adverse planting conditions (hot/dry soils) and on land not previously planted to this legume.

Open pack, squeeze to disperse contents, and pour inoculant directly onto the seed in the planter box and mix gently.

SEED LABELING

"This seed is treated with rhizobial inoculant at the manufacturer's recommended rate. Do not use treated seed for food, feed or oil purposes. On soybeans, do not graze or feed livestock on forage and hay in treated areas." Add appropriate information for any other chemical treatments.

WARRANTY

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 Helena Chemical Company, no claims are made to guarantee germination of carry-over seed.

Helena Chemical Company warrants that this inoculant conforms to the above description. It will produce satisfactory nodulation when used with favorable soil and climate conditions according to the directions, with the legume crop specified, and before the expiration date. Helena Chemical Company's sole obligation in the event of breach of this warranty shall be to refund the purchase price or replace the defective product.

Helena Chemical Company shall not be liable for and disclaims all consequential, incidental damages, whatsoever. Without limiting the foregoing, Helena Chemical Company shall not be responsible for loss or partial loss to of crop from any cause whatsoever. Helena Chemical Company expressly disclaims and excludes any implied warranty of merchantability or fitness for a particular purpose. Helena Chemical Company shall not be subject to any other obligation, liability or remedy, whether arising out of breach of contract, warranty, tort including negligence and strict liability, or other theories of law or remedies.

Helena Chemical Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability, and remedies.