



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Biopesticides and Pollution Prevention Division (7511M)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

70506-626

Date of Issuance:

9/30/2024

NOTICE OF PESTICIDE:

☒ Registration

☐ Reregistration

(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

414-03

Name and Address of Registrant (include ZIP Code):

UPL NA Inc.  
PO Box 12219  
Research Triangle Park, NC 27709

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention 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 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 U.S. Environmental Protection Agency. In order to protect health and the environment, the Administrator, on his or her 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 the 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 unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration or registration review of your product when the EPA requires all registrants of similar products to submit such data.

Signature of Approving Official:

 Digitally signed by  
Alexandra Boukedes  
Date: 2024.09.30  
17:25:51 -05'00'

Alexandra Boukedes, Product Manager 92  
Microbial Pesticides Branch  
Biopesticides and Pollution Prevention Division (7511M)  
Office of Pesticide Programs

Date:

9/30/2024

2. Make the following labeling change before you release this product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 70506-626."
3. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.


Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

- Basic CSF dated 09/19/2024

If you have any questions, please contact me by phone at (202) -566-1511 or via email at [boukedes.alexandra@epa.gov](mailto:boukedes.alexandra@epa.gov).

Sincerely,

 Digitally signed by  
Alexandra  
Boukedes  
Date: 2024.09.30  
17:26:12 -05'00'

Alexandra Boukedes, Product Manager 92  
Microbial Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511M)  
Office of Pesticide Programs

Enclosure

# 414-03

**ACCEPTED**

Sep 30, 2024

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No. 70506-626

[Alternate Brand Name: to be determined]

[Alternate Brand Name: to be determined]

For use as a biological nematicide seed treatment that provides protection of seedlings from listed plant pathogenic nematodes

**ACTIVE INGREDIENT:**

**By Wt.**

*Bacillus licheniformis* strain 414-01\* .....33.00%

**OTHER INGREDIENTS:** .....67.00%

**TOTAL:** ..... 100.00%

\*Contains a minimum of  $9.0 \times 10^{10}$  colony-forming units (CFU) per gram of product.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

FIRST AID	
If on skin or clothing	<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>
If swallowed	<ul style="list-style-type: none"> <li>Call 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 the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If inhaled	<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, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If in eyes	<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>
HOTLINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Contact Rocky Mountain Poison &amp; Drug Safety at 1-866-673-6671 for emergency medical treatment. For information on this product (including general health concerns or pesticide incidents), call the National Pesticide Information Center (NPIC) at 1-800-858-7378, Monday through Friday, 8:00 AM to 12:00 PM Pacific Time (NPIC Website: <a href="http://www.npic.orst.edu">www.npic.orst.edu</a>).</p>	
<p>For chemical emergency: spill, leak, fire, exposure or accident, call CHEMTREC at 1-800-424-9300</p>	

See other panels for additional precautionary information.

UPL NA Inc.  
PO Box 12219  
Research Triangle Park, NC 27709  
1-800-438-6071

EPA Reg. No. 70506- AEA \_\_\_\_\_  
EPA Est. No. \_\_\_\_\_  
Net Weight: \_\_\_\_\_ pounds

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Harmful if absorbed through skin, swallowed or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Mixers/loaders and applicators must wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; OR a NIOSH-approved powered air-purifying respirator with an HE filter. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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

### Engineering Controls

When handlers use closed systems or enclosed cabs, in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides 40 CFR 170.607(d) and (e)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**Important:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

#### User Safety Recommendations

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove clothing/PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into 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 disposing of equipment washwater or rinsate.

### 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 state or tribal agency responsible for pesticide regulation.

This labeling must be in the possession of the user at the time of application.

#### **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 4 hours.

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

#### **NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treatment area until seeds have dried or been packaged

#### **PRODUCT INFORMATION**

414-03 is a dry bionematicide seed treatment that when applied to seed, provides protection of seedlings from listed plant pathogenic nematodes that attack the root system in peanut and potato. Seed must be sound and well-cured before treatment. In areas of historically high nematode infestation, additional control measures may be warranted.

#### **SEED TREATMENT EQUIPMENT – COMMERCIAL OR ON-FARM**

414-03 may be used both for commercial and for on-farm application. 414-03 can be applied with mechanical seed treating equipment, as long as the equipment can be calibrated to accurately and uniformly apply the product to seed without undue mechanical damage to the seed. Uniform application to seed is important for biological seed treatment products.

#### **APPLICATION INSTRUCTIONS**

Seed must be sound and well-cured before treatment. Refer to the application rates below. 414-03 should be applied by thoroughly mixing with seed, using dry seed treatment equipment to maximize seed coverage. Treat only those seeds needed for immediate use.

**NOTE:** This product does not contain dye and is not covered by an appropriate tolerance, tolerance exemption, or other clearance under the Federal Food, Drug and Cosmetic Act. To comply with 40

CFR 153.155(a), therefore, all seed treated commercially with this product must be colored with an EPA-approved dye or colorant of a suitable color to prevent accidental use as food for humans or feed for animals.

### SEED BAG LABEL REQUIREMENTS

The Federal Seed Act requires that bags containing seed treated with this product shall be labeled with the following information:

- This seed has been treated with *Bacillus licheniformis* strain 414-01
- Do not use for food, feed or oil purposes. Store away from feed and food stuffs.

User is responsible for ensuring that the seed bag meets all requirements under the Federal Seed Act.

### USE RESTRICTIONS

Do not use treated seed for food, feed or oil purposes. For at-planting seed treatments, treat only those seeds needed for immediate use, minimizing the interval between treatment and planting. Care must be exercised in the handling of treated seed. Augers used for handling treated seed must not be used to move seed for feed, food or oil processing. Do not reuse bags from treated seed to handle food or feed products.

### COMPATIBILITY TESTING AND TANK MIX PARTNERS

It's the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the application restrictions/limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements for each product in the tank mixture.

### APPLICATION INSTRUCTIONS

Seed may be treated either on a per unit of seed basis or on a per weight of seed basis, as shown in the table below.

414-03 may be used in combination with other UPL registered seed treatment products. Pre-test for compatibility needs to be verified with other seed treatment products. Read and follow carefully all label directions of each product used in the treating mixture. When using combinations of products, the most restrictive of label limitations and precautions must be followed.

### CROPS, PESTS AND APPLICATION RATE

CROP	APPLICATION RATE Dry oz/cwt / 100 kg	PESTS CONTROLLED
Peanut	0.013 oz/cwt 0.85 ml/100 kg seed	Peanut Root Knot nematode Lesion nematode Northern root-knot nematode
Crop Group Subgroup 1C Tuberous and corm vegetables Potato Seed pieces	0.013 oz/cwt 0.85 ml/100 kg seed	Potato Cyst Nematode Root Knot nematode Root Lesion nematode Reniform Nematode Stubby root nematode

## **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store at 62.6-79.3°F (17-26.3°C) in a cool, dry, secure location.

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

### **CONTAINER HANDLING:**

**[Plastic Bag] Nonrefillable container. Do not reuse or refill this container.**

Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**[Lined Fiber Drum] Nonrefillable container. Do not reuse or refill this container.**

Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then off for recycling if available or dispose of in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned stay out of smoke. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

**IMPORTANT INFORMATION**  
**READ BEFORE USING PRODUCT**

**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of UPL NA Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of UPL NA Inc. and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold UPL NA Inc. and Seller harmless for any claims relating to such factors.

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, UPL NA INC. AND SELLER MAKE NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ON THIS LABEL.**

To the extent consistent with applicable law, UPL NA Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product and **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UPL NA INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UPL NA INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

UPL NA Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by the duly authorized representative of UPL NA Inc.

[label updated on 09/16/2024]