

# Neemazal – T/S 1.2% EC

**AZADIRACHTIN-BASED BIOLOGICAL INSECTICIDE, REPELLANT,  
ANTIFEEDANT AND INSECT GROWTH REGULATOR**

**FOR USE ON GREENHOUSE AND OUTDOOR FOOD CROPS, ORNAMENTAL FLOWERS, TREES, SHRUBS AND  
PLANTS**

**ACTIVE INGREDIENT:**

Azadirachtin..... 1.2%

**OTHER INGREDIENTS.....**

98.8%

**TOTAL 100.00%**

Contains 0.0987 lb. azadirachtin per gallon.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

**FIRST AID**

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention.

**IF INHALED:** Move person to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

**IF IN EYES:** Flush eyes with plenty of water. Call a physician if irritation persists.

**FOR EMERGENCY MEDICAL RESPONSE AND HAZARD COMMUNICATION ONLY, CALL 1-800-228-5635 EXT. 283**

**READ ALL DIRECTIONS BEFORE USING THIS PRODUCT**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Harmful if absorbed through skin or inhaled. Avoid breathing vapor. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. 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

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

**ENVIRONMENTAL HAZARDS**

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. Homeowner Use: Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters or rinsate. This pesticide is toxic to fish and aquatic invertebrates.

**DIRECTIONS FOR USE**

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

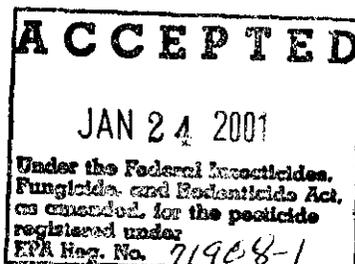
**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.** Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

**USER SAFETY RECOMMENDATIONS**

- 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.

EPA Reg. No. 71908-1  
EPA Est. No. 071908-IND-001

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Post Box No. 12  
Madras 6000 001  
INDIA



**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 (WPS).

**Do not enter or allow 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**

These requirements apply to uses of this product that are NOT within the WPS 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. For other uses, including golf courses and other non-agricultural uses, do not enter treated areas without protective clothing until sprays have dried.

**PRODUCT MODE OF ACTION**

**NEEMAZAL T/S 1.2 EC** controls target pests on contact or by ingestion. The product acts on pests by way of repellence, antifeedance, and interference with the molting process. The buyer or user is reminded that the degree of efficacy of the product is largely dependent on weather conditions, intensity of pest population, area of application, type of pest, and physical stage of pests.

**GENERAL INFORMATION**

Read all directions before using this product.

There are no restrictions on applying **NEEMAZAL T/S 1.2 EC** up to the time of harvest. Do not exceed 57 oz. of **NEEMAZAL T/S 1.2 EC** (20 grams active ingredient), per acre per application.

**MIXING**

**NEEMAZAL T/S 1.2 EC** has been found to be compatible with most commonly used pesticides and fertilizers. However, a compatibility test is recommended before using this product in a tank mix with other pesticides or with fertilizers. To test for compatibility, mix a small amount of each product, in the recommended proportions, in a small jar.

**AZA-DIRECT** has been evaluated for phytotoxicity on a wide range of crops and ornamentals. However, since testing on all varieties of all crops and ornamentals is not feasible, testing a small portion of the area to be treated for phytotoxicity is recommended before treating the entire area. Further, all possible combinations or sequences of pesticide sprays, including other fertilizers, surfactants, adjuvants and other pesticides, have not been tested, thus testing for phytotoxicity of spray mixtures is recommended.

Ensure that mixing and spraying equipment is in sound operating condition. **NEEMAZAL T/S 1.2 EC** may be applied by all spray uses, low volume, high volume and aerial application. Add required amount of **NEEMAZAL T/S 1.2 EC** to a clean spray tank with at least one-half of the water to be sprayed. Constant agitation is recommended, particularly with tank mixes. Agitate the mixture thoroughly and then fill the tank with remaining water and continue agitation. Thorough mixing is necessary for uniform coverage. Non-uniform mixing can cause crop injury or can result in lowered effectiveness. For tank mixes, add other components to the tank containing the **NEEMAZAL T/S 1.2 EC** spray mixture and agitate thoroughly. If tank mixture is allowed to sit, agitation is necessary prior to application. The spray mixture pH should be 4 to 7 for good efficacy. Do not store spray solution for an extended period.

**APPLICATION INSTRUCTIONS**

Dilute the product with water at a rate of 8.3 to 57 ounces of **NEEMAZAL T/S 1.2 EC** in 2 to 100 gals. of water per acre depending on the type of application equipment being used and the foliage to be covered. See table for more detailed information on recommended application rates. Make applications according to the table below. Use any suitable ground or aerial application equipment to ensure uniform coverage.

For optimum results, spray the product as soon as possible after pests appear and are in immature stages. Spray at an interval of seven to ten days or as the situation warrants. During high pest infestation levels use higher label rates and increase the spray frequency. Spraying in the morning or evening hours is recommended. Repeat spraying if rain occurs within two to three hours of spraying.

**NEEMAZAL T/S 1.2 EC** can be applied as directed to any food or non-food crop up to and including the day of harvest, at a maximum rate of 57 ounces (20 grams active ingredient) per acre per application. Rates in the table pertain to typical pest infestations. For heavy late-season infestations, apply up to 57 ounces per acre (1.3 ounces per 1000 square feet).

**SPRAY DIRECTIONS****High Volume Sprayers:**

Use the higher label rates when foliage is dense. Thorough and complete coverage of both sides of leaves is advised.

**Low Volume or Ultra-Low Volume Sprayers:**

Thorough and complete coverage is essential for good efficacy.

**Aerial Applications:**

**NEEMAZAL T/S 1.2 EC** may be aerially applied using suitable equipment such as fixed-wing aircraft or helicopter.

**EQUIPMENT**

**NEEMAZAL T/S 1.2 EC** may be applied at high volume using hand or power sprayers or at low/ultra low volume using appropriate application equipment, or by air. Follow equipment manufacturer's recommendations when using these types of equipment.

Do not apply this product through any type of irrigation system.

## Recommended NEEMAZAL T/S 1.2 EC Application Rates

CROP	PEST	OUNCES PER ACRE
<b>LEAFY AND BRASSICA (COLE) VEGETABLES:</b> Amaranth, Arugula, Broccoli, Broccoli raab (rapini), Brussels Sprouts, Cabbage, Cauliflower, Cardoon, Cavalo broccolo, Celery, Chinese Broccoli (gai lan), Chinese Cabbage (bok choy, Napa), Chinese mustard Cabbage (gai choy), Chinese Celery, Celluce, Chervil, Chrysanthemum (edible-leaved, Garland), Collards, Corn salad, Crabs (garden, upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel (florence), Kale, Kohlrabi, Lettuce (head and leaf), Mizuna, Mustard Greens, Mustard Spinach, Orach, Parsley, Purslane (garden, winter), Radicchio (red chicory), Rape Greens, Rhubarb, Salnach, Spinach (New Zealand, vine), Swiss Chard	Leafrollers, Cutworms, Loopers, Armyworms	8.3 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Beetles, Weevils, Flies, Midges, Thrips, Mites	10.4 to 42
<b>ROOT AND TUBER VEGETABLE GROUP:</b> Arracacha, Arrowroot, Artichoke (Jerusalem, Chinese), Beet (garden, sugar), Burdock (edible), Canna (edible), Carrot, Cassava (bitter and sweet), Celanac (celery root), Chayote (root), Chervil, (turnip-rooted), Chicory, Chufa, Dasheen (taro), Ginger, Ginseng, Horseradish, Leren, Oriental Radish (dalkon), Parsley (turnip-rooted), Parsnip, Potato, Radish, Rutabaga, Salsify (cyclor plant, black, Spanish), Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam bean (jicama, manioc pea), Yam (trus)	Beetles, Weevils	4.9 to 22
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Thrips, Mites	10.4 to 42
<b>COTTON AND TOBACCO:</b>	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Beetles, Weevils, Flies, Midges, Thrips, Mites	12.5 to 42
<b>ORNAMENTAL SHRUBS AND PLANTS:</b> Amaranthus, Aster, Azalea, Ferns, Fuchsia, Caladium, Carnation, Chrysanthemum, Dahlia, Daisy, Lilies, Ivy, Ficus, Gardenia, Impatiens, Iris, Jasmine, Lllac, Marigold, Philodendron, Poinsettia, Rose, Zinnia	Beetles, Weevils	14 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Thrips, Mites	14 to 42
<b>ORNAMENTAL TREES:</b> Ash, Birch, Cedar, Cyprus, Dogwood, Fir, Elm, Juniper, Maple, Oak, Pine, Spruce	Beetles, Weevils	12.5 to 42
	Thrips	12.5 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites	11.5 to 42
<b>MISCELLANEOUS:</b> Asparagus, Avocado, Banana, Cranberry, Fig, Globe artichoke, Grape, Hops, Kiwifruit, Mango, Mushroom, Okra, Papaya, Pawpaw, Peanut, Persimmon, Pineapple, Strawberry, Water chestnut, Watercress	Beetles, Weevils	12.5 to 42
	Thrips	12.5 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites	11.5 to 42
<b>FRUITING VEGETABLES:</b> Eggplant, Groundcherry, Papino, Pepper (including bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato	Beetles, Weevils	12.5 to 42
	Thrips	12.5 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites	11.5 to 42
<b>CUCURBIT VEGETABLES:</b> Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Gourd (edible), Muskmelon, Pumpkin, Squash (summer and winter), Watermelon	Beetles, Weevils	12.5 to 42
	Thrips	12.5 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites	11.5 to 42
<b>LEGUME VEGETABLES (Succulent or Dried):</b> Bean, Broad Bean, Chickpea, Guar, Jackbean, Lablab bean, Lentil, Pea, Pigeon Pea, Soybean, Sword bean	Beetles, Weevils	12.5 to 42
	Thrips	12.5 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites	11.5 to 42
<b>BULB VEGETABLES:</b> Garlic, Leek, Onion (dry bulb, green and Welsh), Shallot	Beetles, Weevils	12.5 to 42
	Thrips	12.5 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites	11.5 to 42
<b>CITRUS FRUITS:</b> Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (sour and sweet), Pummelo, Satsuma mandarin	Beetles, Weevils	12.5 to 42
	Thrips	12.5 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites	11.5 to 42

CROP	PEST	OUNCES PER ACRE
<b>POME FRUITS GROUP:</b> Such as: Apple, Crabapple, Loquat, Mayhaw, Pear, Oriental Pear, Quince	Beetles, Weevils	12.5 to 42
	Thrips	12.5 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites	11.5 to 42
<b>STONE FRUIT GROUP:</b> Apricot, Cherry (sweet and tart), Nectarine, Peach, Plum (Chickasaw, Damson, Japanese), Plumcot, Prune	Beetles, Weevils	12.5 to 42
	Thrips	12.5 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites	11.5 to 42
<b>BERRIES GROUP:</b> Blackberry, Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red)	Beetles, Weevils	12.5 to 42
	Thrips	12.5 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites	11.5 to 42
<b>TREE AND NUT GROUP:</b> Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia nut (bush nut), Pecan, Walnut (black and English)	Beetles, Weevils	12.5 to 42
	Thrips	12.5 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites	11.5 to 42
<b>CEREAL GRAINS GROUP:</b> Barley, Buckwheat, Corn, Millet (pearl and Proso), Oats, Popcorn, Rice, Rye, Sorghum (milo), Teosinte, Triticale, Wheat, Wild rice	Beetles, Weevils	12.5 to 42
	Thrips	12.5 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites	11.5 to 42
<b>HERBS AND SPICES GROUP:</b> Allspice, Angelica, Anise (anise seed and star), Annatto (seed), Balm (lemon balm), Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Caraway (black), Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Chervil (dried), Chive, Chinese Chive, Cinnamon, Clary, Clove buds, Coriander (cilantro or Chinese parsley - leaf), Coriander (cilantro-seed), Costmary, Culantro (leaf and seed), Cumlin, Curry (leaf), Dill (dillweed and seed), Fennel (common, Florence), Fenugreek, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf and seed), Mace, Mangold, Marjoram, Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (summer and winter), Sweet bay (bay leaf), Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood	Beetles, Weevils	12.5 to 42
	Thrips	12.5 to 42
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites	11.5 to 42

**STORAGE AND DISPOSAL**

**DO NOT** contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse container.

**STORAGE:** Do not store this product above 105° F or below -15° F for extended periods of time. Keep containers tightly closed and in original containers when not in use.

**PESTICIDAL DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Homeowner: Securely wrap original container in several layers of newspaper and discard in trash.

**CONTAINER DISPOSAL:**

**Metal** - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**Plastic** - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and 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.

**Glass** - Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved State and local procedures.

**NOTICE ON CONDITIONS OF SALE**

Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such, or in combination with other materials.

EPA Text: Neemazal (to EPA 12-21-00)