



U.S. ENVIRONMENTAL PROTECTION AGENCY  
 Office of Pesticide Programs  
 Registration Division (7505P)  
 1200 Pennsylvania Ave., N.W.  
 Washington, D.C. 20460

EPA Reg. Number:

5383-204

Date of Issuance:

1/29/18

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Troysan DOT

Name and Address of Registrant (include ZIP Code):

Patti Golick  
 Troy Corporation  
 8 Vreeland Road  
 Florham Park NJ 07932

**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 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 section 3(c)(7)(A). You must comply with the following conditions:

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

Signature of Approving Official:

Elizabeth Fertich, Product Manager 04  
 Invertebrate Vertebrate Branch I  
 Registration Division (7505P)

Date:

1/29/18

2. You are required to comply with the data requirements described in the DCI or EDSP Order identified below:

- a. Disodium Octaborate Tetrahydrate GDCI-011103-949

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI or EDSP Order listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division:

<http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1>

3. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 5383-204.”
4. Submit one copy of the final printed label for the record before you release the product for shipment.

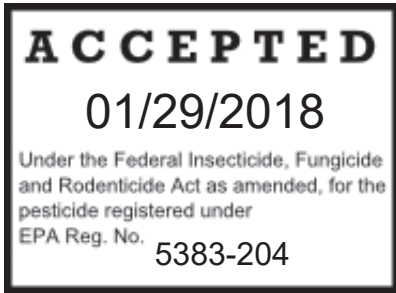
Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements 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 Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 11/29/2017

If you have any questions, please contact Helen Hull-Sanders by phone at 703-347-0243, or via email at [hull-sanders.helen@epa.gov](mailto:hull-sanders.helen@epa.gov).

Enclosure



**Troysan DOT**

For Brush, Spray, Pressure Treatment and Dip-Diffusion

**Active Ingredient:**

Disodium Octaborate Tetrahydrate ( $\text{Na}_2\text{B}_8\text{O}_{13}\cdot 4\text{H}_2\text{O}$ ).....	98%
[Boric Oxide ( $\text{B}_2\text{O}_3$ ) equivalent 67%]	
INERT INGREDIENTS .....	2%
TOTAL .....	100%

EPA Reg. No.: 5383-TBD  
EPA Estab. No.: 5383--XXXX

**READ THE LABEL BEFORE USE**

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

NOT FOR USE IN FOOD OR DRUGS

***Manufactured for:***

Troy Chemical Corp.  
One Avenue L  
Newark, N.J. 07105

Emergency Number:  
Chemtrec: 1-800-262-8200

NET CONTENTS: \_\_\_\_\_

[center panel]

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

**CAUTION:** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear long sleeved shirt, long pants, shoes and socks.

**USER SAFETY RECOMMENDATIONS:**

User should wash hands thoroughly before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

<b>FIRST AID</b>	
<b>If Swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a doctor or poison control center immediately for treatment advice.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Have person sip a glass of water if able to swallow..</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If in Eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eyes 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 on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin with plenty of water for 15-20 minutes</li> <li>• Call poison control center or doctor for additional treatment advice.</li> </ul>
<b>If Inhaled</b>	<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 further advice.</li> </ul>
<p>In case of any medical emergency call 911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p>	

*For use by Individuals/Firms licensed or registered by the state to apply termiticide products. States may have more restrictive requirements regarding qualification of persons using this product.*

## **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish. Do not contaminate water when cleaning equipment or disposing of equipment wash waters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark.

## **PHYSICAL OR CHEMICAL HAZARDS**

Troysan DOT is stable at room temperature in closed containers under normal storage conditions. When heated it loses water and forms Boric Oxide and Sodium Oxide. Avoid high temperatures (> 250°F), dust generation and exposure to moist air or water.

Reaction with strong reducing agents will generate hydrogen gas, which could create an explosion hazard.

## **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read and follow all applicable directions and precautions on this label before using:

Restrictions:

- Do not apply to foamboard.
- Do not use in edible product areas of food processing plants or on counter tops and other surfaces where food is prepared.
- Do not use in serving areas where food is exposed.
- Do not contaminate feed, water or food
- Do not use to treat lumber that will contact soil or be exposed to leaching by weather.
- Do not apply directly to food
- Do not allow children and pets in the treatment area until after application is completed.
- Do not treat pets with this product. Do not contaminate feed and foodstuff. Do not contaminate ornamental plants.

**PRECAUTIONS:**

- In the home, remove or cover exposed food, food handling surfaces, and cooking utensils. Wash thoroughly after treatment and before reuse.
- When spraying overhead interior areas of homes, apartments buildings, and all other dwellings, cover or protect all surfaces below the area being treated with plastic sheeting or other material which can be disposed of if contamination from dripping or splashing occurs.

**PRODUCT INFORMATION:**

Troysan DOT is a water-soluble inorganic borate salt with termiticidal properties. It is effective for the protection and remedial treatment of wood against wood-destroying organisms, including the target pests listed. This product can be used for the pressure treatment of lumber, for the dip-diffusion treatment of lumber, spray and brush applications of lumber with Troysan DOT.

Troysan DOT will penetrate the wood to the heartwood, protecting the wood from termites and other wood destroying insects. It may be tank-mixed with an approved pesticide or an approved fungicide/moldicide for increased performance in insect protection or fungus/mold protection on hard surfaces. Troysan DOT will protect wood from both white rot and brown rot and other fungi. Tank mixing with other fungicides or pesticides must follow any label instructions and precautions.

**TARGET ORGANISMS:**

Troysan DOT is effective for treatment of wood (and wood-foam composite structural components) against wood boring insects, including the following insects:

Subterranean Termites

Reticulitermes, *Heterotermes*,  
*Coptotermes* (Formosan)

Dampwood Termites

*Zootermopsis*

Drywood Termites

Ants: Red Fire, Pharoah, Argentine,  
Carpenter Ants (*Camponotus*)

German Cockroaches

Silverfish

Powderpost Beetles

*Lyctidae*, *Anobiids*  
*Bostrichidae*, *Cerambycidae*

Wood Decay Fungi

Brown Rot (*Geophyllum trabea*)

White Rot (*Trametes versicolor*)  
other wood rot fungi

## **This label is for End-Use Applications Only**

### **Wood**

Troysan DOT is recommended for wood materials in accordance with the specific treatment methods described below. It is effective for interior and exterior wood (and wood-foam composite structural components) that will be protected from rain and not in direct contact with soil. Types of wood include, but are not limited to, all types of lumber, logs, plywood and wood products. This product is toxic to wood-destroying insects, but surface etching of treated wood may occur.

#### **PRESSURE TREATMENT:**

Softwood species use a low concentration solution for Pressure Treatment processes. A 1-2% concentration is very common. For 1000 gallons of 2% concentration, 174 lbs. of Troysan DOT would be dissolved. Wood Pressure treaters can adjust the solution strength to fit the variables of the operating cycle. Vacuum (inches of Mercury), time of vacuum, pressure (psi), time of pressure can vary to achieve the proper loading of the DOT (Disodium Octaborate Tetrahydrate) in any species of wood based on experience.

Pressure treatment of wood must result in retention of 0.17 lbs/ft<sup>3</sup> (2.8 kg/m<sup>3</sup>) B<sub>2</sub>O<sub>3</sub> or 0.26 lbs/ft<sup>3</sup> (4.2 kg/m<sup>3</sup>) DOT for Non-Formosan Termites in the assay zone specified in American Wood Preservation Association (AWPA) Standard T1-10. For Formosan termites, the retentions must be 0.28 lbs/ft<sup>3</sup> (4.5 kg/m<sup>3</sup>) B<sub>2</sub>O<sub>3</sub> or 0.42 lbs/ft<sup>3</sup> (6.7 kg/m<sup>3</sup>) for DOT per the AWPA standard U1-10. The concentration of the solution must be adjusted to give the correct retention for the wood species and size of the lumber being treated; in general solutions are in the range of 1-2% DOT (0.083-0.166 lb/gal w/v) for softwood species.

Dimensional lumber dried to less than 25% moisture (as oven dry weight), should be stickered before treating. If different species are being treated at once, the treatment conditions for the most difficult to treat species must be chosen. If both sapwood and heartwood are included, use the conditions for heartwood to ensure adequate loadings.

#### **Cross Tie Applications:**

Troysan DOT can be used on hardwood lumber (e.g Railroad crossties and switchties) under AWPA Book of Standards, 2010, (use Category U1-10, Section 3, Commodity Specifications for Treated Wood End Uses). The borate treated wood must also be post treated with an oil borne preservative for encapsulation purposes. The finished wood product can be rated as a 4C Category Use per the AWPA Book of Standards.

Hardwood species will require 20% solutions and the use of elevated temperatures (150-180°F). AWPA Book of Standards, Section T1-10, Section A lists the regulated operating conditions for a Pressure Treatment cycle. One gallon of 20% Troysan DOT solution is made by diluting 1.86 lbs. of Troysan DOT with 7.45 lbs. of hot water with good agitation and heat. Maintain heat and mixing to avoid crystallization of the Troysan DOT.

Hardwood railroad ties can be pressure treated with a 20% Troysan DOT solution to the point of refusal (approximately 0.6 gal/tie) to give a loading of 0.27 lbs/ft<sup>3</sup> of DOT (1 lb. of DOT /7"x9"x 8.5' tie).

**End Cut Treatment:**

Certain pressure treated lumber (Western softwoods) should be treated when cut at a construction site because typical wood preservatives do not penetrate some wood species effectively. Spray, brush or dip the end-cuts over a plastic drop cloth to collect any runoff. Spray or brush generously until the wood will accept no more solution. Alternatively, dip each end-cut for about 5 minutes.

**DIP-DIFFUSION TREATMENT:**

Preparation of Solutions: To prepare a Dip-Diffusion treatment solution, from the table listed below, add water (about 75% of the volume of solution required) to a mixing tank. The temperature is then raised to the required level and the required amount of Troysan DOT is then added to obtain the final volume. The solution is to be agitated for an additional 10 minutes to insure that all of the Troysan DOT has dissolved. The temperature of the solution must be maintained to prevent crystallization losses upon cooling. If crystals are noted they will re-dissolve when the solution is re-heated. In very cold weather, heating and insulation should be used to maintain temperatures. The tank should be covered when not in use to prevent contamination and losses of water by evaporation.

**Approximate Conditions and Solution Strengths for the Dip-Diffusion Method**

<b>Pounds of Troysan DOT per Gallon of Water</b>	<b>DOT Solution Concentration %</b>	<b>Minimum Solution Temperature</b>
1.6	16.5	105°F (40°C)
1.9	20.5	120°F (50°C)
2.4	25	130°F (55°C)
2.8	29	140°F (60°C)

Different species of wood will require different solution concentrations and the more difficult species may require a second dipping cycle. Lumber used in this process needs to conform to AWPA standards U1-10 and T1-10.



**DIP-DIFFUSION METHOD OF APPLICATION:**

Dip freshly cut lumber (moisture content 30-80% water) into the dip-diffusion tank containing the hot aqueous solution of Troysan DOT for 2-15 minutes. The treated wood should be stacked and stored under a tarpaulin or shed roof in order to slow the drying process and prevent leaching of the Troysan DOT by rainfall. Diffusion of the Troysan DOT throughout the wood will start immediately. Storage conditions will influence the speed of the diffusion process. The species and thickness of wood itself will also influence the diffusion process. The species and thickness of wood itself will also influence the diffusion process. Dip-diffusion of lumber must result in a retention of 0.28 lbs/ft<sup>3</sup> (4.5 kg/m<sup>3</sup>) B<sub>2</sub>O<sub>3</sub> for Formosan termite protection. The final loading of active ingredient must conform with AWWA specifications U1-10 and T1-10.

Dip diffusion immersion times and solution concentrations will vary according to the specie of wood treated. Longer dip time, higher concentrations and higher temperatures increase the loading of the Troysan DOT. Finished goods should conform with AWWA Standards: 0.17 lbs/ft<sup>3</sup> (2.8 kg/m<sup>3</sup>) B<sub>2</sub>O<sub>3</sub> or 0.26 lbs/ft<sup>3</sup> DOT (4.2 kg/m<sup>3</sup>) against Non-Formosan termites. Formosan termites require 0.28 lbs/ft<sup>3</sup> B<sub>2</sub>O<sub>3</sub> (4.5 kg/m<sup>3</sup>) or 0.42 lbs/ft<sup>3</sup>DOT (6.7 kg/m<sup>3</sup> DOT)

**BRUSH AND SPRAY APPLICATIONS:**

Lumber treated by brush and spray applications shall conform with all AWWA Standards. The moisture content of the wood to be treated should be a minimum of 17%. Higher initial moisture content will facilitate the loading of Troysan DOT. For control of termites, Carpenter ants, and wood decay fungi, apply the 15% aqueous solution of Troysan DOT by brush or spray until the surface is thoroughly wet ( 1 gallon per 200 square feet). For adequate loading of the active ingredient per AWWA specifications, treatment must be conducted a second time (or even a third time for Dampwood or Formosan termites) after the surface has dried. A single coat of 15% Troysan DOT solution at 200 ft<sup>2</sup>/gallon, will give 0.15 lbs/ft<sup>3</sup> (pcf., pounds/cubic foot) of the active ingredient (DOT) to a 0.6 inch depth of the sprayed surface.

**Moldicides with Troysan DOT Solutions:**

For increased wood protection an EPA registered moldicide may be added to pressure treatment solutions, dip-diffusion solutions, spray solutions and brush solutions. The Troysan DOT will protect the interior of the wood from insects and wood rot and the moldicide will protect the exterior of the wood from mold, mildew and algae.

Wood treated with a moldicide and Troysan DOT can be used in new construction or on wood in existing structures.

<b>Storage and Disposal</b>
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Do not Contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store in a dry area. Do not store where children or animals may gain access.

**Pesticide Disposal:** Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Non-refillable 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.

#### **WARRANTY NOTICE**

Neither manufacturer nor the seller shall be liable in respect to any injury or damage suffered by reason of the use of this product for a purpose not indicated by the label or when used contrary to the directions or instructions hereon nor with respect to breach of any warranty not expressly specified herein. To the extent permissible by law, the buyer accepts this material subject to these terms, and assumes all risk of usage and handling except when used or handled in accordance with this label.