64405-8 09/13/2001 1/6

NIBOR™ BORATE INSECTICIDE AND FUNGICIDE

For the prevention and remedial control of wood* infesting organisms including:
Termites, Drywood Termites, Wood Destroying Beetles, Decay Fungi and Carpenter Ants
***Also for Wood Foam Composite Structural Components**

For the Control and Prevention of General Pests

A wood preservative for protection and treatment of lumber against fungal decay and wood destroying insects including termites

For the Control and Prevention of Common Mildew and Fungus

Active Ingredient:	
Disodium Octaborate Tetrahydrate ($Na_2B_8O_{13}.4H_2O$)	98%
Other Ingredient*	2%
Total	100%

*Contains 2% H_2O – Absorbed Moisture

ACCEPTED
SEP 13 2001
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 64405-8

EPA Reg. No. 64405-8 **EPA Est. 64405-TN-1**

Net Contents: _____

Keep Out of Reach of Children

CAUTION

PRECAUTIONARY STATEMENTS
Hazards To Humans & Domestic Animals

CAUTION: Harmful if swallowed or inhaled. Causes moderate eye irritation. Avoid contact with eyes or clothing. Avoid breathing dust. Thoroughly wash with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

Personal Protective Equipment (PPE)

Mixers/loaders, applicators and other handlers must wear: Long-sleeved shirt and long pants, shoes plus socks, protective eyewear, chemical resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or viton) and, in confined spaces, a respirator with an organic vapor removing cartridge with a prefilter 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 N, R, P or HE prefilter.

User Safety Requirements

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

User Safety Recommendations

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Immediately remove clothing if pesticide gets inside, then thoroughly wash and put on clean clothing. Immediately remove personnel protective equipment after handling this product and thoroughly wash as soon as possible. Wash the outside of gloves before removing.

First Aid

If Swallowed	• Immediately call a poison control center or doctor for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If Inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If in Eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	

{**Note:** The First Aid statements' grid format will be used if market label space permits; otherwise a paragraph format will be used.}

{Product packaged in containers of 50 pounds will bear the following *Environmental Hazards* statements:}

Environmental Hazards

This pesticide is toxic to fish and wildlife. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. 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 to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State water board or regional office of the EPA.

{Product packaged in containers less than 50 pounds will bear the following *Environmental Hazards* statements::}

Environmental Hazards

This pesticide is toxic to fish and wildlife. Do not apply directly to water. 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.

NOTICE

Read and understand the entire label before using. Use only according to label directions. Before buying or using this product, read ***Warranty Limitations and Disclaimer*** statement found elsewhere on this label. If terms are unacceptable, return unopened package to seller for full refund of purchase price. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under ***Warranty Limitations and Disclaimer.***

DIRECTIONS FOR USE

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

Storage and Disposal

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

Pesticide Storage: Store in a dry place. Do not store where children or animals may gain access. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal: Paper or Plastic Bags:** Completely empty bag into application equipment. 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. **Plastic Containers:** Triple rinse (or equivalent) then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

General Insect Control

General Information

NIBOR is a water soluble inorganic borate salt with insecticidal properties effective against general pests, including the target pests listed below. Apply as a liquid solution, mop solution, foam or dust. Use as a remedial treatment to kill and control existing infestations or as a preventative treatment for possible future infestations of general pests such as, but not limited to, those listed below:

Roaches (including German, Brown-banded, Smokey Brown, Brown, American, Australian and Oriental Roaches), **Silverfish, Earwigs, Crickets** (including House Crickets, Field Crickets and Camel Crickets), **General Ants** (including Argentine, Thief, Little Black, Pavement, Odorous House, Crazy and Ghost Ants), **Carpenter Ants, Boxelder Bugs, Cluster Flies, Centipedes and Millipedes.**

Use **NIBOR** as a dust or liquid crack, crevice, void and spot treatment for the control and prevention of general pests, such as ants, crickets, earwigs, roaches and silverfish. Use only as a crack and crevice treatment in food areas of food handling establishments, restaurants or other places where food is commercially prepared or processed. Do not use in edible product areas of these food-handling establishments. Do not use in serving or other food areas while food is exposed. Do not contaminate feed and foodstuffs. **Applications of this product in the food areas of food handling establishments other than as a crack and crevice treatment are not permitted.**

Use **NIBOR** in homes, restaurants, markets, schools, warehouses, factories, offices, hotels, hospitals, nursing homes, garages, grocery stores, apartment buildings, new construction, industrial plants, theaters, ships, trains, trucks, yachts, mobile homes, buses, zoos, kennels, military bases, libraries and utilities. Apply **NIBOR** only in areas inaccessible to children and pets. **Do not use NIBOR for flea control.**

Preparation of a Treatment Solution

15% NIBOR Liquid Solution: To prepare solution, add approximately 80% of the required volume of water to the mixing vessel. While stirring, gradually add 1.5 pounds of **NIBOR** for each gallon of treating solution required. Add remaining water to the solution and stir until the entire product has dissolved. Use this solution as soon as possible and do not store for an extended length of time.

Wash and rinse all equipment after each use.

Application Instructions

NIBOR Application as a Dust: Dust **NIBOR** into wall voids, cracks and crevices, moist areas, openings around pipes and sinks, under refrigerators, behind baseboards and storage shelves to kill and prevent infestations of ants, crickets, cockroaches, silverfish and other insect pests and arthropods. No powder should be visible after application. Remove or brush any powder visible after application into cracks and crevices.

NIBOR Application as a Liquid: Apply **NIBOR** 15% liquid solution as a crack and crevice, void and spot treatment to kill and control infestations of ants, crickets, cockroaches, earwigs and silverfish. Apply **NIBOR** 15% liquid solution into cracks and crevices, void areas, between elements of construction, between equipment and floors, openings leading to voids and hollow spaces in walls, equipment legs and bases and areas where insects hide. Do not introduce the material into the air. Apply the **NIBOR** 15% liquid solution for general insect control as a spot treatment to outside areas of structures around windows, doorframes and other areas where insect pests may enter. Product may leave a light residue on dark surfaces. Residual effects of **NIBOR** will last longer in areas protected from weather and elements.
Note: Do not apply **NIBOR** liquid solutions in conduits, motor housings, junction boxes, switch boxes or other electrical equipment because of possible shock hazard.

Directions for Applying NIBOR as a Mop Solution: Add 8 ounces of **NIBOR** to each gallon of rinse water. Apply to floor areas only for the supplemental control of pests including ants and cockroaches. Make only enough for each application. This is to be used as a supplemental treatment in conjunction with other pest management practices and may be reapplied as necessary. Remove or brush any powder visible after application into cracks and crevices. Do not contaminate feed and foodstuffs.

Directions for Applying NIBOR to Control Mildew and Fungus (Except in California): Mix **NIBOR** at the rate of 8 ounces of powder to 1 gallon of water. In areas affected by mildew and fungus, apply to certain surfaces to kill and control mildew and fungus in conjunction with conventional moisture control practices such as repairing leaking structural components or pipes, lowering interior humidity levels and, where possible, providing adequate ventilation. Apply as a spot treatment to affected surfaces including baseboards and wall areas. DO NOT APPLY **NIBOR** TO CARPET AREAS. Reapply as necessary.

Wood Treatment

General Information

NIBOR is a water soluble, inorganic borate salt with insecticidal and fungicidal properties effective against wood-destroying organisms including the target pests listed below. Apply **NIBOR** as a liquid solution, powder or foam. **NIBOR** is an

effective treatment for wood (and wood-foam composite structural components) to kill and prevent infestations of decay fungi including white rot, brown rot (i.e., Poria) and wet rots. This product may be used for preventative treatment (before signs of infestation), for wood in existing structures and for remedial treatment of infested wood in existing structures. This product may also be used for pre-treatment of wood before or during the construction process. **NIBOR** is also effective for the prevention and control of wood destroying insects such as, but not limited to, the following organisms:

Subterranean Termites (Reticulitermes, Heterotemes, Coptotermes (Formosan)), **Drywood Termites** (Kalotermes, Incisitermes), **Dampwood Termites** (Zootermopis), **Powederpost Beetles** (Lyctidae), **"False" Powederpost Beetles** (Bostrichidae), **Deathwatch and Furniture Beetles** (anobiidae), **Old House Borers, Longhorn Beetles** (Cerambycidae), **Carpenter Ants** (Camponotus), **Bark and Timber Beetles** (Scolytidae)

NIBOR is recommended for wood and cellulose material in accordance with the specific treatment methods described herein. **NIBOR** is effective for all interior and exterior wood (and wood-foam composite structural components) that will be protected from excessive rain and not in direct contact with the soil. Types of wood include, but are not limited to, all types of lumber, logs and plywood. This product kills wood-destroying organisms. Some etching of treated wood may occur from organisms before they die. Do not apply **NIBOR** to wood or cellulose material that has been painted, varnished or sealed. For best results, apply **NIBOR** to bare wood. Use soap and water to clean application equipment.

Preparation of Treatment Solutions

10% NIBOR Liquid Solution: To prepare solution, add approximately 80% of the required volume of water to the mixing vessel. While stirring, gradually add 1.0 pound of **NIBOR** for each gallon of treating solution required. Add remaining water to the solution and stir until the entire product has dissolved.

15% NIBOR Liquid Solution: Prepare solution as above, but gradually add 1.5 pounds of **NIBOR** for each gallon of treatment solution needed. [To prepare solution, add approximately 80% of the required volume of water to the mixing vessel. While stirring, gradually add 1.5 pounds of **NIBOR** for each gallon of treating solution required. Add remaining water to the solution and stir until the entire product has dissolved.] Use this solution as soon as possible and do not store for an extended length of time.

15% NIBOR Foam: Prepare a 15% liquid solution as described above and also add a surfactant-foaming agent. Generally 1-2 ounces of a foaming agent, added to the 15% liquid solution, produces a dry foam with the desired expansion ratio of approximately 20 to 1 (20 gallons of foam per 1 gallon of liquid solution). The **NIBOR** foam should be of a "dry" consistency that adheres to wood surfaces so that run-off is minimized. A "wet" foam may damage wallboard or other building components. Refer to the individual foam equipment manufacturer's manual and the surfactant's label for specific instructions.
Wash and rinse all equipment after each use.

General Application Instructions

NIBOR as a liquid solution: **NIBOR** liquid applications may be made to wood structures including decks, fences, steps, sheds, barns and other outbuildings. On wood with drier than normal moisture content, apply by brush or spray two applications of a 10% solution to wood surfaces. On wood with normal moisture content, apply by brush or spray one application of a 15% solution to wood surfaces. Application may also be made by drilling and then injecting the solution under pressure into sound wood or into the insect galleries of infested wood. **NIBOR** may be applied as a foam to wood surfaces or injected into wall voids or insect galleries.

Remedial and Preventative Treatment

NIBOR Solutions for the Control of Wood Destroying Organisms and to Kill Active Infestations of Termites, Powderpost Beetles and Wood Decay Fungi: For remedial control of wood attacking organisms or for the protection of wood against future infestations, two applications of a 10% liquid solution are normally required. One application of a 15% liquid solution may be used. Apply **NIBOR** solutions by brush or spray at the rate of 5 gallons of liquid solution per 1000 square feet of wood surface area. Thoroughly wet wood surface area. Application may also be made by drilling and then injecting the liquid solution under pressure into sound wood or until run-off is observed coming from entry/exit holes of infested wood.

NIBOR Powder to Kill and Control Wood Destroying Organisms, Such as Termites and Carpenter Ants: Apply **NIBOR** as is to wood members by drilling and injecting the powder into galleries or by dusting generously on wood surfaces. **NIBOR** powder can also be injected or dusted into wall voids such as between studs, block voids, box sills, eaves, attics, soffets, etc. Apply **NIBOR** powder to these areas at the rate of 0.5 ounce (12-14 grams) per square foot.

NIBOR Foam: In wall voids, inject enough dry foam to contact wood surfaces of studs in the wall or the entire desired target area. Apply foam where possible, to abutting wood surfaces and between wood joints. Apply the foam so that all accessible wood surfaces are covered with foam. **NIBOR** foam can also be injected into insect galleries until run-off is observed.

Wood Treatment During Construction for Prevention of Wood Destroying Organisms: During Construction: Spray, foam or powder applications of **NIBOR** may be made to wood. Apply a **NIBOR** liquid solution to all accessible surfaces of bare wood at a rate of approximately 5 gallons per 1000 square feet of wood surface area. Apply after framing and roofing are in place and before insulation and dry wall are installed. Do not spray electrical components or other non-wood components. Treat end-cuts of wood by application methods listed above, or by dipping end-cuts for 1-5 minutes in a **NIBOR** 10% liquid solution. Apply powder applications of **NIBOR** after framing and roofing are in place and before insulation and dry wall are installed. Apply powder at the rate of 0.5 ounce (12-14 grams) per square foot to wall stud areas, box sills, roof eaves, attics and soffets.
Protect newly treated wood from excessive rain or moisture.

Dip-Diffusion Treatment

Preparation of Solutions: To prepare solutions described below, add water to the tank to approximately 80% of the volume of solution required. Raise water temperature to the desired level and, with good agitation, gradually add the calculated amount of **NIBOR**. Add remaining water to the solution and agitate for an additional 10 minutes to ensure that all of the product has dissolved. The temperature of the solution should be maintained during treatment. Upon cooling some borate may crystallize out of the solution, but will redissolve when the solution is heated for the next treatment session. In very cold weather, provide some heating or insulation to prevent solidification in the bottom of the tank. Cover the tank when not in use to prevent contamination and evaporation.

Suggested Conditions and Solution Strengths for Dip-Diffusion

Lumber Thickness	Pounds of NiBor per Gallon of Solution	Solution Temperature	Diffusion Complete In
Up to 1 inch (2.5 cm)	1.40	105°F (40°C)	2 to 4 weeks
1 to 1.75 inches (2.5 to 4.0 cm)	1.80	120°F (50°C)	4 to 6 weeks
to 2.5 inches (4.0 to 6.5 cm)	2.50	103°F (55°C)	4 to 6 weeks
to 3 inches (6.5 to 7.5 cm)	2.80	135°F (57°C)	6 to 8 weeks
*Lumber over 3 inches (7.5 cm) in thickness or over 5 inches (12.5 cm) in width should be dipped twice, 24 to 72 hours apart.			

Dip-Diffusion Method of Application: Dip freshly-cut lumber in a tank containing a hot liquid solution of **NIBOR** for 2 to 5 minutes. After dipping, stack the newly treated wood and store under a tarpaulin or shed roof to slow the drying process and prevent wash-off by rainfall, thus improving penetration. Diffusion of the wood preservative into the interior of the wood will start immediately and will require several weeks to thoroughly penetrate the lumber, depending on the species and thickness of wood. The dip-diffusion method of treatment can result in complete penetration throughout the cross-sectional area of treated lumber.

Pressure Treatment

Pressure treatment of wood should result in a retention of 0.3 lb./sq.ft. (4.8 kg/m3) **NIBOR** in the assay zone specified in American Wood Preservers Association (AWPA) Standard C-2 for waterborne preservatives. The concentration of the solution must be adjusted to give the correct retention for wood species and size being treated; in general, solutions are in the range of 1-2% (0.1-0.2 lb./gal.) w/v. Consult standards C-1 and C-2 of the AWPA Book of Standards regarding treatment times, pressures and temperatures necessary for various wood species.

Cut clean wood to dimension, dry to less than 25% moisture (as oven dry weight) and sticker before treating. If several species are being treated at once, choose the treatment schedule for the most difficult to treat species. If both sapwood and heartwood are included, use the schedule for heartwood to ensure adequate loading.

Warranty Limitations and Disclaimer

Because of varying conditions affecting the use and application, manufacturer warns buyer that these may impair or vary the results or effects of the use of this product. In any event, complete prevention of decay or insect infestation is not guaranteed. Neither the manufacturer nor 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 or with respect to breach of any warranty not expressly specified herein. 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.

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Made in the U.S.A.

{[Indicates alternate/optional language]}
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