

SEP 28 1994

Ms. Kim Davis
Nisus Corporation
c/o RegWest Company
P.O. Box 2220
Greeley, CO 80632-2220

Dear Ms. Davis:

Subject: Clarification of Directions for Use
BORA-CARE
EPA Reg. No. 64405-1
Your submission dated Sept. 7, 1994

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable and a stamped copy is enclosed for your records.

Sincerely yours,

Robert J. Taylor
Product Manager 25
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

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BORA-CARE^R

Termiticide, Insecticide and Fungicide Concentrate

For the Prevention and Control of

**TERMITES, CARPENTER ANTS, WOOD DESTROYING BEETLES
and DECAY FUNGI**

FOR BOTH INTERIOR AND EXTERIOR USE

For use in and around Homes, Apartments, Garages, Museums, Public and Private Institutions, Schools, Hotels, Hospitals, Kennels, Stables, Farm Buildings, Trucks, Trailers, Warehouses, Supermarkets, Restaurants and Food Processing Plants

Authorized by the USDA for use on Non-Food Contact Surfaces in Edible Product Areas of Official Establishments Operating under the Meat, Poultry, Shell Egg Grading and Egg Products Inspection Programs

ACTIVE INGREDIENT:	
Disodium Octaborate Tetrahydrate ($\text{Na}_2\text{B}_8\text{O}_{13} \cdot 4\text{H}_2\text{O}$)	40.0%
INERT INGREDIENTS	60.0%

Density: 11.51 pounds per gallon

U.S. Patent Nos. 5,104,664 and 5,295,240

Keep Out of Reach of Children

CAUTION

See other panels for additional precautionary statements.

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

NET CONTENTS: _____ GALLON(S) (_____ LITERS)
NET WEIGHT: _____ POUNDS (_____ KILOS)

ACCEPTED
with COMMENTS
by EPA Letter Dated:

SEP 2

64405-1

NISUS CORPORATION
101 Concord Street
Knoxville, TN 37919
(615) 637-1226
(800) 264-0870

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PRECAUTIONARY STATEMENTS

Hazards to Humans & Domestic Animals

CAUTION: Harmful if inhaled. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. Avoid contamination of food and feed. Do not leave container where children or animals may gain access.

Statement of Practical Treatment

If Inhaled: Remove victim to fresh air. Apply artificial respiration if indicated. Contact a physician if warranted. **If In Eyes:** Flush with plenty of water. Get medical attention if irritation persists. **If On Skin:** Remove contaminated clothing and wash skin with soap and water. Wash clothing prior to reuse.

IN CASE OF A MEDICAL EMERGENCY involving this product call (800) 424-9300 or your local Poison Control Center.

Environmental Hazards

BORA-CARE solutions carelessly spilled or applied to cropland or growing plants, including trees and shrubs, may kill or seriously retard plant growth. Cover plants and nearby soil with plastic to avoid contamination. Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters.

DIRECTIONS FOR USE

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

BORA-CARE should be applied only to bare wood, plywood, particle board and other cellulosic materials where an intact water repellent barrier such as paint, stain or a sealer is not present.

The use of this product in food processing establishments should be confined to time periods when the plant is not in operation. Foods should be removed or covered during treatment. All food processing surfaces should be covered during treatment or thoroughly cleaned before using. After treatment in food processing plants, thoroughly wash all equipment, benches, shelving, etc. where exposed food will be handled, with an effective cleaning compound and rinse with potable water.

When spraying overhead interior areas of homes, apartment buildings, etc., cover or protect all surfaces below the area being sprayed with plastic sheeting or other material which can be disposed of if contamination from dripping occurs. Do not apply in food serving areas while food is exposed.

BORA-CARE is NOT a soil termiticide and should not be used directly to treat the soil.

STORAGE AND DISPOSAL

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

STORAGE: Store in a dry place. Do not store where children or animals may gain access. Do not freeze.

PESTICIDE DISPOSAL: Do not contaminate water when disposing of equipment washwaters. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: 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.

SAFE HANDLING PROCEDURES

Applicators and other handlers must wear long-sleeved shirt and long pants, socks, shoes, chemical resistant gloves and protective eyewear. When applying BORA-CARE in confined spaces, it is recommended that ventilation or an exhaust system be provided. If this is impractical, the use of a NIOSH approved respirator designed for protection from organic vapors (type TC-14G) is recommended. Spills and over-spray may be cleaned with a damp cloth or absorbed with appropriate materials. (Refer to the BORA-CARE Material Safety Data Sheet for additional health and safety information.)

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I. MIXING INSTRUCTIONS

BORA-CARE is a concentrate which must be diluted with clean water before use. The use of warm or hot water, if available, and an impeller type mixer which can be used with an electric drill aids the dilution process.

A. Hand Sprayers: Mix in a clean container and stir the solution until completely uniform. Always mix in a separate container then add the solution to a spray tank. Mixing BORA-CARE directly in a spray tank can block hoses and nozzles.

B. High Volume Pumping Systems: Add all of the dilution water to tank, start recirculator, then slowly add BORA-CARE concentrate. Allow to mix until uniform.

Use one (1) part water to one (1) part BORA-CARE (1:1) and two (2) parts water to one (1) part BORA-CARE (2:1) solutions within 24 hours after mixing. Five (5) parts water to one (1) part BORA-CARE (5:1) solutions will remain stable for up to 30 days. Do not leave unused solution under pressure or in tank overnight. Clean and/or flush equipment and lines with water after use.

BORA-CARE may be tank-mixed with an approved non-residual pesticide for quicker knock-down of carpenter ants and other insects.

II. DILUTION RATIOS BY VOLUME

TABLE A

PARTS WATER		PARTS BORA-CARE	% DISODIUM OCTABORATE TETRAHYDRATE
1	to	1	23%
2	to	1	16%
3	to	1	13%
5	to	1	9%

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TABLE B

TARGET PESTS	DILUTION RATIOS	
	WATER TO BORA-CARE	APPLICATION NOTES
All Insects & Decay Fungi	1:1	Spray, Injection, Brush, Roller
Subterranean & Formosan Termites	1:1 or 2:1	2:1 dilution ratio may be used for fogging applications only
Drywood Termites	1:1 or 2:1	
Anobiid & Lyctid Powder Post Beetles	1:1 or 2:1	Use a 2:1 dilution ratio for treating hardwood floors. Logs require a 1:1 ratio
All Other Beetle Species	1:1	
Carpenter Ants	1:1 or 2:1	
Decay Fungi	1:1 or 2:1	Use a 1:1 dilution ratio on wood members 2" thick or greater
Drywood Termites, Powder Post Beetles & Decay Fungi	5:1	Two (2) applications required for surface spray or fog

TABLE C

APPLICATION	DILUTION RATIOS	
	WATER TO BORA-CARE	APPLICATION NOTES
Logs, Large Beams & Dimensional Lumber	1:1	All insects & decay fungi
Preventative Treatment of Decking, Fences & Plywood	2:1	Use on wood members 2" in thickness or less
Prevention of Powder Post Beetles & Drywood Termites	5:1	For prevention only
Preventative Treatment of Decking, Fences & Plywood	3:1	For use with CO-PEL Water Repellent on wood 2" in thickness or less
Logs, Large Beams & Dimensional Lumber	5:1	Dip treatment only

III. GENERAL INFORMATION

BORA-CARE is an innovative termiticide, insecticide and fungicide that eliminates existing infestations and provides long term protection against:

Subterranean Termites: Reticulitermes, Heterotermes

Formosan Termites: Coptotermes

Dampwood Termites: Zootermopsis, Neotermes

Drywood Termites: Kaloterms, Incisitermes

Powder Post Beetles: Lyctidae, Bostrichidae

Anobiid Beetles: Anobiidae

Old House Borers, Longhorn Beetles: Cerambycidae, Hylotrupes

Ambrosia Beetles: Platypodidae, Scolytidae

Carpenter Ants: Camponotus

Brown Rot, White Rot and Wood Decay Fungi including:

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<i>Antrodia sinuosa</i>	<i>Phialophora heteromorpha</i>
<i>Antrodia xantha</i>	<i>Phialophora lignicola</i>
<i>Aspergillus amstelodami</i>	<i>Phialophora luteo-olivacea</i>
<i>Aspergillus niger</i>	<i>Phoma herbarum</i>
<i>Aureobasidium pullulans</i>	<i>Phoma lanosa</i>
<i>Basidiomycete</i>	<i>Polyporus abietinus</i>
<i>Bisporia pusillas</i> 132	<i>Polyporus rugulosus</i>
<i>Ceratocystis pluriannulata</i>	<i>Polyporus sulphureus</i>
<i>Ceratocystis picea</i>	<i>Polyporus tomentosus</i>
<i>Chaetomium globosum</i> keizze	<i>Polyporus versicolor</i>
<i>Coniophora cerebella</i>	<i>Polystictus versicolor</i>
<i>Coniophora olivacea</i>	<i>Poria carbonica</i>
<i>Coniophora puteana</i>	<i>Poria incrassata</i>
<i>Fomes lividus</i>	<i>Poria monticola</i> 698
<i>Fomes officinalis</i>	<i>Poria nigrescens</i> 4856
<i>Fomes pini</i>	<i>Poria placenta</i>
<i>Fomes pinicola</i>	<i>Poria subacida</i>
<i>Gloeophyllum abietinum</i>	<i>Poria vaillantii</i>
<i>Gloeophyllum sepiarium</i>	<i>Poria vaporaria</i>
<i>Gloeophyllum trabeum</i>	<i>Poria xantha</i>
<i>Hericium abietis</i>	<i>Rhinocladia sp.</i>
<i>Heterobesidion annosum</i>	<i>Sclerophoma pityophila</i>
<i>Lectinus lepidus</i>	<i>Serpula lacrymans</i>
<i>Lenzites trabea</i>	<i>Sistotrema brinkmannii</i>
<i>Merulius lacrymans</i>	<i>Stachyotrys atra</i> corda
<i>Ophiostoma coeruleum</i>	<i>Stereum abietinum</i>
<i>Paecilomyces varioti</i>	<i>Torulla sp.</i>
<i>Phialophora sp.</i>	<i>Trametes lilacino-gliva</i>
<i>Phialophora fastigiata</i>	<i>Trametes serialis</i>
<i>Phialophora haffmannii</i>	<i>Tricholcladium asperum</i>

BORA-CARE can be used on all cellulosic materials including wood, plywood, particle board, paper, oriented strand board (OSB), cardboard and wood composite structural components.

In areas where a soil treatment/barrier termiticide treatment is required by law, BORA-CARE should be applied as a supplemental pretreatment to protect wood from subterranean termites that may penetrate chemical gaps occurring in termiticide treated soil.

As a remedial treatment, BORA-CARE will both eliminate and prevent infestations of Formosan, subterranean and drywood termites, wood boring beetles, carpenter ants and decay fungi. It may also be used as a supplement or alternative to fumigation in order to provide long term residual control.

Since BORA-CARE is applied directly to the wood, it can be used in areas where environmental contamination is of concern (nearby wells, cisterns, etc.). The active ingredient in BORA-CARE is an inorganic salt and once in place, it will not decompose or volatilize out of the wood. Treatment is long lasting (up to 40 years) as long as the treated material is not exposed to rain, continuous water or ground contact.

The active ingredient in BORA-CARE, disodium octaborate tetrahydrate, is toxic to many insects, decay fungi and some forms of bacteria. Although the efficacy of borates (salts containing the element boron) against insects such as termites and wood boring beetles is well documented, the actual mechanism is not completely understood. The most accepted hypothesis is that boron kills the intestinal flora that allow some insects to digest food. Without them, these insects essentially starve to death. BORA-CARE's patented formulation greatly enhances both depth and speed of penetration in wood as well as the efficacy of the active ingredient.

Once BORA-CARE has been applied, those insects which eat or infest the wood come in contact with the active borate ingredient, and are killed. Some wood damaging insects, such as carpenter ants, do not consume wood but use the wood as nesting sites. While chewing, they exude chemicals which soften the wood for easier removal. In the process of releasing and absorbing these chemicals or by being in contact with BORA-CARE treated wood, these insects also ingest the borate in the wood, and are killed.

Once individual members of many ant and termite colonies begin to die after feeding on a particular food source, the rest of the colony usually stops feeding on that same source. Thus, borate treated wood may be avoided by those members of the colony still alive.

Older wood boring beetle larvae (particularly Old House Borers) already present in the wood at the time of treatment may occasionally emerge sometime after treatment. This will not occur frequently enough to cause structural damage to any wooden member.

IV. REMEDIAL TREATMENT FOR THE CONTROL OF SUBTERRANEAN, FORMOSAN, DRYWOOD AND DAMPWOOD TERMITES, CARPENTER ANTS, OLD HOUSE BORERS, POWDER POST AND OTHER WOOD BORING BEETLES AND WOOD DECAY FUNGI

A. Infested wood can be treated by spraying and/or injecting BORA-CARE solution into beetle holes, termites and carpenter ant galleries and decay pockets. Apply one (1) coat of BORA-CARE solution to the point of wetness to all infested and susceptible wood, paying particular attention to infested areas. Two (2) coats of BORA-CARE solution need only be applied to those wood members with only one (1) or two (2) exposed sides. For quicker control, apply an additional coat onto heavily infested areas waiting at least 20 minutes between applications.

In cases where the infestation is not accessible from the surface, small holes may be drilled into the wood in order to gain access to the infested area. Inject enough solution to completely flood galleries or voids. Adjacent intact wood may be treated by pressure injecting BORA-CARE into holes drilled into the wood at eight (8) to ten (10) inch intervals. Inject at 40 psi for four (4) to six (6) seconds per hole.

For treating infested wall voids, refer to Sections IV.E. and F.

B. Basements and crawl spaces may be treated by applying one (1) coat of BORA-CARE solution to the point of wetness to all infested and susceptible wood surfaces including sill plates, piers, girders, sub-floors, floor joists and any wood exposed to vertical access from the soil. On wood where access is limited to one (1) or two (2) sides of wood members, such as sills and plates on foundation walls, apply two (2) coats of BORA-CARE solution. Wait at least 20 minutes between applications. Apply at a rate of approximately one (1) gallon of BORA-CARE solution per 200 square feet of floor area (400 square feet of wood surface area).

C. Buildings on slabs may be treated by applying BORA-CARE solution into wall voids by locating each stud and drilling a small hole through the wall covering to gain access to the infested area. Drill holes adjacent to the side of each stud every 18-24 inches along its length and inject at least 1/3 fluid ounce of BORA-CARE solution per hole. Drill at least one hole per stud bay near the floor in order to treat the base plate in each void. Treat entire wall areas as opposed to single stud bays in order to include the infested area completely within the treatment zone.

D. Wood flooring can be treated by spray, brush or roller application. It will be necessary to remove any existing finish by complete coarse sanding or stripping prior to application. Apply a two (2) parts water to one (1) part BORA-CARE (2:1) solution at a rate of approximately one (1) gallon of solution per 500 square feet of floor surface. For treating infestations of subterranean or Formosan termites, two (2) coats may be required, waiting at least one (1) hour between applications. Allow floor to completely dry (typically 48 to 72 hours). Moisture content must be 10% or less before applying final finish. BORA-CARE applications may raise the grain of the wood and an additional light sanding may be necessary before applying a new finish. Although BORA-CARE is compatible with most floor coatings, always test a small section of treated floor with the new finish and check for appropriate adhesion prior to coating entire floor.

NOTE: If surface is tacky or residue is evident after 72 hours of drying time, wash affected area with clean water and a mop, cloth or sponge, rinsing frequently. Allow surface to dry prior to final light sanding and application of finish coat.

E. For treating voids, wall studs and wood members not accessible by conventional application methods, spray or mist solution into voids and channels in damaged and suspected infested wood and/or through small holes drilled into walls and baseboard areas. Holes should be spaced no more than 24" apart along each member to be treated and at least one (1) hole must be drilled between each wall stud when treating base plates. Use sufficient amount of material to cover all areas to the point of wetness.

NOTE: Existing insulation may interfere with distribution of the BORA-CARE solution. If necessary, move or displace insulation prior to treatment.

F. Foam applications: BORA-CARE can be applied to bare wood surfaces and void areas as a foam by mixing two (2) parts water with one (1) part BORA-CARE (2:1) and adding 3 to 8 ounces of foaming agent per gallon of mixed solution. Apply foam being sure to completely fill the void. Foam will take approximately one (1) hour to return to liquid state and soak into bare wood.

Apply foamed BORA-CARE to void spaces at a 1:20 to 1:30 foam ratio [one (1) gallon of mixed solution expanded with foaming agent to produce 20 to 30 gallons of foam]. Apply enough foam to completely fill void and contact all wood surfaces in the void space.

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G. Roofs containing infested cellulosic materials may be treated by drilling holes through roofing surface in order to gain access to the infested area. Holes should be spaced no more than three (3) feet apart in a grid pattern. Inject two (2) to four (4) fluid ounces of BORA-CARE solution into each hole. Be sure to patch all holes with suitable materials in order to prevent subsequent water infiltration.

H. Fogging applications: For treating confined spaces such as attics or crawl spaces, a fogging device may be used. A two (2) parts to one (1) part BORA-CARE (2:1) solution should be added to the fogging device reservoir. Fog the area with enough BORA-CARE solution to completely wet all exposed wood surfaces. Apply approximately one (1) gallon of solution for every 400 to 800 cubic feet of void volume. In heavily infested areas, fogging should be supplemented with direct spray applications. If fogging is for control of subterranean or Formosan termites, two (2) separate applications may be necessary. Wait at least 2 hours between applications. Multiple fogging devices should be operated simultaneously for each 2000 cubic feet of void volume being treated.

NOTE: Fogging is recommended only when access is limited, preventing application by other means.

I. Foam insulation may be treated by injecting a two (2) parts water to one (1) part BORA-CARE (2:1) solution into the infested area and/or low pressure surface spraying at a rate of one (1) gallon per 300 to 400 square feet.

NOTE: Some types of foam insulation, such as polyisocyanurate and extruded polystyrene, have closed cell structures which do not allow significant penetration from surface application. These types of foam should be injected, as well as surface sprayed, to achieve proper control or prevention of infestations.

V. PREVENTATIVE AND/OR PRETREATMENT FOR WHOLE HOUSE PROTECTION FROM SUBTERRANEAN, FORMOSAN, DRYWOOD AND DAMPWOOD TERMITES, CARPENTER ANTS, OLD HOUSE BORERS, POWDER POST AND OTHER WOOD BORING BEETLES AND WOOD DECAY FUNGI

NOTE: This treatment serves as a primary treatment for control of Formosan and subterranean termites.

Pretreatment should be performed at a point during the construction process when greatest access to all wood members is available. Normally, this is at the "dried-in" stage of construction when all structural wood and sheathing is in place, yet prior to installation of insulation, mechanical systems, electrical wiring, etc.

Apply one (1) coat of a one (1) gallon water to one (1) gallon BORA-CARE (1:1) solution to all wood surfaces to the point of wetness. Concentrate application in areas susceptible to attack, to include all sills, plates, floor joists, piers, girders and subfloors. Treat wood in all plumbing, electrical and ductwork areas where they penetrate walls or floors. Treat all base plates and studs on interior and exterior walls especially those surrounding any high moisture areas such as bathrooms, kitchens and laundry rooms. For buildings built on slabs, treat all wood in contact with the slab as well as all interior and exterior wall studs and wall sheathing material. In attics, treat all wood including ceiling joists, trusses, top plates, rafters and roof decking. Be sure that all sill plates and wood contacting garages and porches are treated.

In areas where access is limited to one (1) or two (2) sides of a wood member, apply two (2) coats of BORA-CARE solution to the exposed surfaces. Wait at least 20 minutes between applications.

Treat all exterior wood including siding, facias, soffits, eaves, roofing, porches, decks and railings (refer to Sections VIII and IX for complete exterior application information).

VI. PREVENTATIVE AND PRETREATMENTS FOR SUBTERRANEAN TERMITES (CRAWL SPACE, BASEMENT AND SLAB)

NOTE: This treatment serves as a primary treatment for the control of subterranean termites.

Use only a one (1) part water to one (1) part BORA-CARE (1:1) solution when treating for subterranean termites.

Pretreatment may be performed at a point during the construction process, however it is best performed when greatest access to all wood members is available. Normally this is at the "dried-in" stage of construction when all structural wood and sheathing is in place, yet prior to installation of insulation, mechanical systems, electrical wiring, etc.

A. Buildings on Crawl Spaces and Basements: Apply one (1) coat of a one (1) gallon water to one (1) gallon BORA-CARE (1:1) solution to the point of wetness in a 24 inch wide uninterrupted band to all wood surfaces in crawl spaces and basements, to include all sills, plates, floor joists, piers, girders and subfloors as well as wood exposed to vertical access from the soil. Treat all wall base plates and the bottom two (2) feet of all interior and exterior wall studs. Treat any wood adjacent to plumbing, electrical conduit and ducts where they penetrate subfloors or plates, and all wood next to porches, garages and fireplaces, in order to provide a two (2) foot wide barrier of BORA-CARE treatment against termite penetration. On wood where access is limited to one (1) or two (2) sides of wood members such as sills and plates on foundation walls, apply two (2) coats of BORA-CARE solution. Wait at least 20 minutes between applications. If accessible, treat the exterior of sill areas around the entire perimeter of the structure with a 24 inch wide band

of BORA-CARE solution beginning with the sill area and extending upwards onto the sheathing material. On multiple story structures, treat only the first story above the masonry foundation level. Coated or painted wood may be treated by pressure injecting BORA-CARE into holes drilled into the wood at eight (8) to ten (10) inch intervals. Inject at 40 psi for four (4) to six (6) seconds per hole.

B. Buildings on Slabs: Apply one (1) coat of a one (1) gallon water to one (1) gallon BORA-CARE (1:1) solution to all base plates and the bottom 24 inches of all studs on all exterior and interior walls. In areas where access is limited to one (1) or two (2) sides of a wood member, apply two (2) coats of BORA-CARE solution to the exposed surfaces. Wait at least 20 minutes between applications. Treat all wood in plumbing walls and apply to any wood in bath traps as well as wood adjacent to plumbing, electrical conduit and duct penetrations in order to provide a minimum 24 inch wide barrier of treatment between the soil and the balance of the structure.

VII. PREVENTATIVE TREATMENT FOR DRYWOOD TERMITES AND POWDER POST BEETLES

Apply two (2) coats of a five (5) gallons water to one (1) gallon BORA-CARE (5:1) solution to all wood surfaces to the point of wetness using a brush, spray or mist. Wait at least 20 minutes between applications.

VIII. TREATMENT OF EXTERIOR WOOD SURFACES LESS THAN TWO INCHES THICK SUCH AS DECKS, SHEDS, SIDING AND FENCES

Apply only to bare wood or to wood surfaces where an intact water repellent or finish is not present. If necessary, remove paint or finish prior to application. Apply one (1) coat of BORA-CARE solution to the point of wetness to all wood surfaces. Apply two (2) coats of BORA-CARE solution to heavily infested areas and to those surfaces where access is limited to one (1) or two (2) sides of wood members. Do not apply in rain or snow. Exterior wood surfaces must not be exposed to rain or snow for at least 48 hours after treatment. If inclement weather is expected, protect exterior treated surfaces with a plastic tarp. For wood in contact with the ground or soil, see Section XI.

A. Finishing and Maintaining Treated Surfaces: For long term protection, exterior wood surfaces which have been treated with BORA-CARE will require a topcoating with a water resistant finish such as paint or exterior stain. The finish or topcoat should be applied within six (6) weeks of treatment. It is important to allow BORA-CARE treated wood to completely dry (at least 48 hours) before applying any protective topcoat. Coat a small section of treated wood with the finish to be used and check for compatibility prior to complete application.

IX. TREATMENT OF EXTERIOR WOOD WITH A COMBINATION OF BORA-CARE AND CO-PEL WATER REPELLENT CONCENTRATE

BORA-CARE may be mixed and applied simultaneously with an approved water repellent adjuvant such as CO-PEL Water Repellent Concentrate to provide a water resistant finish on exterior wood surfaces. Application must be made to bare wood. Dirt, mold, debris and any existing water repellent finish must be removed prior to treatment. Allow the wood to dry (less than 20% moisture content) before application.

Dilute two (2) parts water with one (1) part BORA-CARE (2:1) and mix thoroughly until solution is completely uniform. When this solution is thoroughly mixed, slowly add one (1) part CO-PEL and gently stir. This results in an equivalent BORA-CARE dilution ratio of 3:1 (13% active ingredient concentration). Apply the finished BORA-CARE/CO-PEL solution evenly with a low pressure (25-40 psi) fan spray to wood surfaces at a rate of 200 to 250 square feet per gallon. At this application rate, a single treatment with a BORA-CARE/CO-PEL mixture will impart enough active ingredient to treat wood up to 1½ inches in thickness, such as decking and fencing. Allow decking to completely dry before walking on treated surfaces. Do not apply if rain is imminent or if temperature is below 50°F. (Refer to CO-PEL label for complete instructions on surface preparation, drying time, etc.)

For continued protection CO-PEL should be periodically reapplied in order to maintain an intact water repellent barrier. This will prevent leaching of the active ingredient from exterior wood and provide long term protection from insects, decay and moisture damage.

NOTE: Heavy insect or decay infestations should be treated with BORA-CARE alone according to label instructions and allowed to dry prior to the application of the BORA-CARE/CO-PEL mixture. When multiple applications of BORA-CARE are necessary, include CO-PEL only in the last coat or apply CO-PEL/water solution as a separate application after the BORA-CARE treatment has dried. Once the CO-PEL finish has dried, it will prevent additional applications of BORA-CARE from penetrating into the wood.

X. TREATMENT OF LOG STRUCTURES, TIMBERS, BEAMS, PILINGS AND EXTERIOR WOOD MEMBERS TWO OR MORE INCHES THICK

Apply only to bare wood or to wood surfaces where an intact water repellent or other finish is not present. If

necessary, remove paint or finish prior to application. Interior, unfinished surfaces which have accumulated dirt or cooking oils should be cleaned with a strong detergent prior to treatment. Apply a one (1) part water to one (1) part BORA-CARE (1:1) solution to the point of wetness to all interior and exterior wood surfaces. Refer to application chart for minimum amount of BORA-CARE to treat various size logs or beams. Typically, two (2) coats of solution will be required to treat round logs 10" or greater in diameter and rectangular logs larger than 6" x 12". Wait at least one (1) hour between applications. Two (2) coats of BORA-CARE solution should also be applied to log ends, notches, corners and sill logs. Actual number of coats necessary to meet the minimum requirements will depend upon actual wood size, surface porosity and number of sides accessible for treatment. Do not apply in rain or snow. Exterior wood surfaces should not be exposed to rain or snow for at least 48 hours after treatment. If inclement weather is expected, protect exterior treated surfaces with a plastic tarp.

A. Finishing and Maintaining Treated Surfaces: For long term protection, exterior wood surfaces which have been treated with BORA-CARE will require a topcoating with a water resistant finish such as CO-PEL Water Repellent, paint or exterior stain. The finish or topcoat should be applied within six (6) weeks of treatment. It is important to allow BORA-CARE treated wood to completely dry (at least 48 hours) before applying any protective topcoat. Coat a small section of treated wood with the finish to be used and check for compatibility prior to complete application.

NOTE: Many coatings, including CO-PEL, may interfere with the adhesion of caulks and synthetic chinking compounds. Make sure that caulk and/or chinking is installed prior to application. This notice does not apply to BORA-CARE.

For treating wood members other than logs, refer to appropriate label sections.

XI. TREATMENT OF WOOD IN CONTACT WITH THE GROUND

A BORA-CARE treatment to wood in contact with the ground or soil has a limited lifespan and will require periodic reapplication. Protection may be extended with the use of products such as JECTA™ Diffusible Boracide or IMPEL Rods.

A. Combination Treatments with Impel Rods, Solid Borate Fungicide: BORA-CARE may be used in conjunction with IMPEL rods to protect wood, especially applications such as wood in ground contact where continuous moisture is present. Use of a combination of both products will provide control of insects as well as decay fungi and will increase the rate of active ingredient diffusion from the rods in wood containing low moisture content.

Holes for IMPEL Rod insertion should be drilled slightly larger than normal in order to accommodate the BORA-CARE solution. Insert the IMPEL rod into the hole, then fill the remaining space with a one (1) part water to one (1) part BORA-CARE (1:1) solution. Always allow at least 1/8" head space at the top of the hole between the products and the sealant or plug in order to allow room for expansion. Additional BORA-CARE solution may then be applied to wood surfaces, particularly if an active infestation is present.

XII. BORA-CARE TOTAL WOOD PRESERVATIVE

A wood preservative for protection and treatment of wood against brown rot, white rot, fungal decay and wood destroying insects including beetles, termites and carpenter ants. Treatment is permanent as long as the treated material is not exposed to rain, moisture or ground contact.

A. General Information: BORA-CARE is a concentrated solution of sodium borate with additives which facilitate rapid penetration of wood, regardless of moisture content. It is designed for preventive and/or remedial treatment of wood in both new and existing structures against fungal decay and wood boring insects including:

Subterranean Termites (*Reticulitermes*, *Coptotermes*)
Dampwood Termites (*Zootermopsis*)
Drywood Termites (*Kaloterms*, *Incisitermes*)
Powder Post Beetles (*Lyctidae*)
Anobiid Beetles (*Anobiidae*)
Old House Borers, Longhorn Beetles (*Cerambycidae*)
Carpenter Ants (*Camponotus*)

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B. Surface Preparation: Apply only to bare wood. Remove any previous finishes or water repellents before application of BORA-CARE. Surfaces should be free of dirt and other contaminants. If finished appearance is a concern, any mold or mildew should be removed prior to application of BORA-CARE with an appropriate wood cleaner followed by thorough rinsing of surface.

C. Application Instructions:

1. Treatment of Dimensional Lumber, Plywood and Exterior Wood Surfaces (Decks, Sheds, Siding, Etc.): Apply only to bare wood or to wood surfaces where an intact water repellent or finish is not

present.

If necessary, remove paint or finish prior to application. Apply one (1) coat of either a one (1) part water to one part BORA-CARE (1:1) solution or a two (2) parts water to one (1) part BORA-CARE (2:1) solution to the point of wetness to all wood surfaces. Apply two (2) coats of BORA-CARE solution to heavily infested areas and to those surfaces where access is limited to one (1) or two (2) sides of wood members. Do not apply in rain or snow. Exterior wood surfaces must not be exposed to rain or snow for at least 48 hours after treatment. If inclement weather is expected, protect exterior treated surfaces with a plastic tarp.

2. **Treatment of Logs, Timbers and Large Beams:** Apply only to bare wood or to wood surfaces where an intact water repellent or other finish is not present. If necessary, remove paint or finish prior to application. Interior, unfinished surfaces which have accumulated dirt or cooking oils should be cleaned with a strong detergent prior to treatment. Apply by spray or brush a one (1) part water to one (1) part BORA-CARE (1:1) solution to the point of runoff to all interior and exterior wood surfaces. Refer to application chart for minimum amount of BORA-CARE to treat various size logs or beams. Typically, two (2) coats of solution will be required to treat round logs 10" or greater in diameter and rectangular logs larger than 6" x 12". Wait at least one (1) hour between applications. Two (2) coats of BORA-CARE solution should also be applied to log ends, notches, corners and sill logs. Actual number of coats necessary to meet the minimum requirements will depend upon actual wood size, surface porosity and number of sides accessible for treatment. Do not apply in rain or snow. If inclement weather is expected, protected exterior treated surfaces with a plastic tarp for at least 48 hours after treatment.

3. **Dip Treating Logs and Lumber:** A dip treating solution may be prepared by mixing five (5) parts water to one (1) part BORA-CARE (5:1). This will result in a stable solution containing 9% active ingredient. Bundled wood must be stickered in order to allow the solution to cover all wood surfaces. Logs and/or lumber should be submerged in the solution for at least one (1) minute or until all entrapped air has escaped. Protect treated wood from rain or snow for at least 24 hours after treatment.

D. **Finishing and Maintaining Exterior Treated Surfaces:** For long term protection, exterior wood surfaces which have been treated with BORA-CARE will require a topcoating with a water resistant finish such as paint or exterior stain. The finish or topcoat should be applied within six (6) weeks of treatment. It is important to allow BORA-CARE treated wood to completely dry (at least 48 hours) before applying any protective topcoat. Coat a small section of treated wood with the finish to be used and check for compatibility prior to complete application. Interior surfaces do not require topcoating except in situations involving repeated moisture contact or high humidity (shower stalls, bath houses, saunas, etc.)

E. **Retention Rates:** One (1) gallon of BORA-CARE concentrate [two (2) gallons of BORA-CARE solution as applied] will treat 800 board feet of wood to a minimum retention level of 0.084 pounds per cubic foot boric acid equivalent (BAE). Since the active ingredient penetrates throughout the wood being treated, the amount of BORA-CARE needed must be calculated on a volume of wood being treated, not just the surface area. Use the following formulas to calculate the required amount of BORA-CARE:

For Dimensional Lumber (2x4, 2x6, 2x12, etc.):

Material thickness (inches) x material width (inches) x material length (feet) divided by 12
= Board Feet.

For Log Homes:

Log height (inches) x log thickness (inches) x perimeter (feet) x number of courses divided by 12 = Board Feet. (For round logs use the average diameter for both height and thickness measurements).

For Siding and Paneling:

One (1) gallon of BORA-CARE concentrate [two (2) gallons of solution] will treat 800 sq. ft. of 1" thick wood by spraying only one side. If siding or paneling is 1/2" thick, one (1) gallon of BORA-CARE concentrate [two (2) gallons solution] will treat 1,600 sq. ft.

NOTE: Round up partial gallons to next whole gallon.

XIII. RECOMMENDED MINIMUM APPLICATION RATES

TABLE D. Dimensional Lumber

Lumber Size (inches)	1 Gallon of Diluted BORA-CARE Will Treat Up To:	Minimum Amount of Diluted BORA-CARE To Treat 1000 Lineal Feet
1x4	1,200 Lineal Feet	0.8 Gallons
1x12	400	2.6
2x4	600	1.6

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TABLE D (Continued)

Lumber Size (inches)	1 Gallon of Diluted BORA-CARE Will Treat Up To:	Minimum Amount of Diluted BORA-CARE To Treat 1000 Lineal Feet
2x6	400 Lineal Feet	2.6 Gallons
2x8	308	3.2
2x10	240	4.2
2x12	200	5.0
4x4	300	3.4
4x6	200	5.0
4x8	150	6.8
4x12	100	10.0
6x6	133	7.6
6x8	100	10.0
6x10	80	12.6
6x12	68	15.0

TABLE E. Panels, Siding and Plywood (1:1 or 2:1 dilution ratio)

Thickness (inches)	1 Gallon of Diluted BORA-CARE Will Treat Up To:	Minimum Amount of Diluted BORA-CARE To Treat 1000 Square Feet
1/4	1,600 Square Feet	0.6 Gallons
3/8	1,067	1.0
1/2	800	1.2
3/4	533	1.8
1	400	2.6

TABLE F. Round Logs (1:1 dilution ratio only)

Diameter (inches)	1 Gallon of Diluted BORA-CARE Will Treat Up To:	Minimum Amount of Diluted BORA-CARE To Treat 1000 Lineal Feet
6	167 Lineal Feet	6.0 Gallons
8	96	10.4
10	61	16.4
12	43	23.4

TABLE G. Square or Rectangular Logs (1:1 dilution ratio only)

Size (inches)	1 Gallon of Diluted BORA-CARE Will Treat Up To:	Minimum Amount of Diluted BORA-CARE To Treat 1000 Lineal Feet
4x8	150 Lineal Feet	6.8 Gallons
4x12	100	10.0
6x6	133	7.6
6x8	100	10.0
6x10	80	12.6
6x12	68	15.0

NOTE: The numbers listed above are based on an application rate of one (1) gallon of BORA-CARE solution to 400 board feet of wood. However, some wood surfaces may absorb more than the minimum application rate.

XIV. CLEANUP

Use soap and water to clean up tools.

XV. SALES WORDS, PHRASES

Borate Based	Low Toxicity	No Odor
Single Application	Long Lasting	Fog
Colorless	Odorless	Foam
Spot Treat	Inject	Whole House Treatment
Mist	Spray	Supplement Soil Treatments
Environmentally Responsible	Highly Effective	A Primary Termiticide
Environmentally Sound	Combine with CO-PEL to treat docks and other exterior wood	

XVI. 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.

XVII. WARRANTY LIMITATIONS AND DISCLAIMER

Because of varying conditions affecting 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 nor 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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IMPEL[®] - Registered trademark of Chemical Specialties, Inc.

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