Opportunity knocks on wood.

Bora-Care Contains Inorganic Borate Salts with Insecticidal Properties

For new construction termite treatments, whole house treatments and remedial treatments.

Use Bora-Care® as a remedial treatment of infested wood or as a long-term protective or preventative of wood in new construction. Bora-Care is not a soil treatment—do not use to directly treat soil.

Bora-Care is used for the prevention and control of carpenter ants, powderpost beetles, anobiid beetles, subterranean termites, Formosan termites, drywood termites, dampwood termites, old house borers and ambrosia beetles.

Bora-Care may be used on all non-food contact surfaces of cellulosic materials including wood, OSB and wood composites as well as concrete, block, brick, metals, PVC plumbing pipes and other non-cellulosic materials.

- Kills and prevents termites and listed wood destroying organisms.
- Will not decompose or volitilize out of wood.
- Has no VOCs (volatile organic compounds).
- Won the Overall Grand Prize, Best of Show award from *Green Builder*® magazine at the 2006 National Green Building Show.
- Qualifies builders for LEED® for Homes points as well as points in many other green building programs.
- Has more than 20 years of both proven *product-specific* efficacy testing and successful field use.
- Available in 3.78 liter (1 gallon) containers.

GREEN BUILDER BEST OF SHOW

GREEN BUILDER MAGAZINE®
2006 OVERALL GRAND PRIZE
NATIONAL GREEN BUILDING CONFERENCE

Nisus Corporation • 100 Nisus Drive • Rockford, TN 37853 USA
(800) 264-0870 • www.nisuscorp.com

Nisus® CORPORATION
Green Pest Control Solutions

BORA-CARE®

Termiticide and Insecticide Concentrate
Commercial Solution

For Prevention and Control of:
• Subterranean Termites • Formosan Termites • Drywood Termites
• Carpenter Ants • Listed Wood Destroying Beetles

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

GUARANTEE: Boron, present as disodium octaborate tetrahydrate 8.40%
REGISTRATION NO. 30157 PEST CONTROL PRODUCTS ACT

Read the Label and Booklet Before Using
Keep Out of Reach of Children

DIRECTIONS FOR USE

USE RESTRICTIONS

Apply only in areas inaccessible to children and pets. Do not use in edible product areas of food processing plants or on countertops 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 enter or allow others to enter or occupy treated areas until spray has been absorbed into the wood. Treated areas must not be occupied during application.

This product may be phytotoxic to plants. When treating around the exterior of structures, cover and protect shrubbery and plants that may be potentially exposed to this product, when applied in accordance with the label directions.

I. Mixing Instructions

Bora-Care is a concentrate that **must** be diluted with clean water before use. The use of warm or hot water, if available, and an impeller-type mixer that 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 concentrate directly in a spray tank can block hoses and nozzles.

B. Hand Volume Pumping Systems: Add all of the dilution water to tank, start recirculator and slowly add Bora-Care concentrate. Mix until uniform.

Use 2:1 and 3:1 Bora-Care solutions within 24 hours after mixing. 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.

II. Dilution Rations by Volume

Table A

Target Pests	Mixing Ratios Water plus Bora-Care	Application Notes
Subterranean and Formosan Termites	2:1	For remedial and preventative treatments apply 1 or 2 applications of the 2:1 dilution ratio for all treatments by spray, injection, brush or roller. The 2:1 dilution ratio may be used for foaming or, for application into inaccessible wall voids, may be used in a misting machine.
Drywood Termites	2:1 or 5:1	For remedial treatment apply the 2:1 by foam or by misting using a misting machine. Use the 5:1 dilution ratio for prevention.
Anobiid and Lyctid Powderpost Beetles	2:1 or 5:1	For all remedial treatments use 1 or 2 applications of the 2:1 dilution ratio. Logs > 10.16 cm require 1 or 2 applications of the 2:1 dilution ratio for prevention. Use a 2:1 dilution ratio for treating hardwood floors. Use the 5:1 dilution ratio for prevention.
Old House Borers, Longhorn Beetles and Ambrosia Beetles	1:1 or 5:1	Use the 1:1 dilution ratio for remedial and preventative treatment in wood > 10.16 cm in thickness. Use the 5:1 dilution ratio for prevention in wood less than 10.16 cm in thickness.
Carpenter Ants	2:1 or 5:1	Use 1 or 2 applications of the 2:1 dilution ratio for all remedial treatments. Use the 2:1 dilution ratio for remedial treatments applied by foam or with a misting machine (or applicator). Use the 5:1 dilution ratio for prevention.

Table B

Materials to Be Treated	Mixing Ratios Water plus Bora-Care	Application Notes
Logs, Large Beams, Timber and Dimensional Lumber >10.16 cm	See target pests in Table A	All spray applications for insects.
Fences and Plywood	See target pests in Table A	Use on wood members 5.08 cm or less in thickness.
Logs, Large Beams and Dimensional Lumber	See target pests in Table A	Use the 5:1 dilution ratio only for dip treatment for insect prevention.

Table C

Parts Water		Part Bora-Care	% Disodium Octaborate Tetrahydrate
2	to	1	16%
3	to	1	13%
5	to	1	9%

III. General Information

Bora-Care is not intended for application to soil; it is not a soil termiticide. **Do not use to directly treat soil. When active infestations exist, get a professional inspection.**

Bora-Care contains an inorganic borate salt, soluble in water, with insecticidal and fungicidal properties effective against wood destroying organisms, including the target pests listed below. This product may be used as a remedial treatment of infested wood and as a long-term protective or preventive treatment (before signs of infestations are observed) of wood in existing or new construction. Bora-Care is recommended for protection of all interior and exterior wood (including wood-foam composite structural components). Treatment is long lasting provided the treated material is not exposed to rain or continuous water or in contact with the ground.

Subterranean Termites: *Reticulitermes, Heterotermes*
Formosan Termites: *Coptotermes*
Drywood Termites: *Kalotermes, Incisitermes*
Dampwood Termites: *Zootermopsis, Neotermes*
Powderpost Beetles: *Lyctidae, Bostrichidae*
Anobiid Beetles: *Anobiidae*
Old House Borers, Longhorn Beetles: *Cerambycidae, Hylotrupes*
Ambrosia Beetles: *Platypodidae, Scolytidae*
Carpenter Ants: *Camponotus*

Bora-Care may be used on all non-food contact surface cellulosic materials including wood, plywood, particle

board, paper, oriented strand board (OSB), cardboard (non-food packaging material), wood composite structural components, concrete, block, brick, metals, PVC plumbing pipes and other non- cellulosic materials found in structures. Apply Bora-Care only to bare wood, plywood, particle board and other cellulosic materials where an intact water-repellent barrier, such as paint, stain or sealer, is not present.

For tracking purposes (to make it easier to see where Bora-Care solutions have been applied) an appropriate marker dye or pigment may be added to the solution when diluting Bora-Care with water. Refer to the dye or pigment product label for recommended amount to add to the Bora-Care solution.

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 that can be disposed of if contamination from dripping occurs. Do not apply in food serving areas while food is exposed. Cover to protect all food contact and preparation surfaces prior to treatment. After treatment, thoroughly clean all food contact surfaces with a potable water/detergent solution followed with a potable water rinse. Remove all pets, turn off fish aquarium pumps, and cover.

In new construction applications for the prevention of subterranean termites, structural wood is defined as: only wood needed for the basic building structure as found in the dried-in stage of construction, including wood in direct contact with foundations, interior and exterior wall sill plates, wood studs, wood or cellulosic sheathing, floor joists and sub-flooring.

Use soap and water to clean up tools.

In structures where a soil treatment/barrier termiticide has been applied and/or termite bait system installed, apply Bora-Care as an additional treatment to protect wood from subterranean termites that may have penetrated the chemical gaps occurring within the termiticide-treated soil or have bypassed the bait/monitor systems.

As a remedial treatment, Bora-Care will both eliminate and prevent infestations of Formosan, native subterranean termites, wood boring beetles, and carpenter ants. It may also be used as a supplement or alternative to fumigation in order to provide long-term residual control. The active ingredient in Bora-Care is an inorganic salt and once in place it will not decompose or volatilize out of the wood.

The active ingredient in Bora-Care, disodium octaborate tetrahydrate, is toxic to listed insects. Once Bora-Care has been applied, those insects that eat or infest the wood come in contact with the active borate ingredient and are killed. There are wood damaging insects, such as carpenter ants, that do not consume wood but use the wood as nesting sites. While chewing, they exude chemicals that 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 and retreats from the area. Thus, borate-treated wood may be avoided by those members of the colony still alive.

Older wood boring beetle larvae and especially pupae (particularly Old House Borers) already present in the wood at the time of treatment may occasionally emerge sometime after treatment. This is because they are no longer feeding on the wood. This will not occur frequently enough to cause structural damage to any wooden member and reinfestation is prevented.

IV. Remedial Wooden Structure Treatment for the Control of Subterranean, Formosan, Drywood and Dampwood Termites, Carpenter Ants, Old House Borers, Powderpost and Listed Wood Boring Beetles

A. Infested wood: Spray and/or inject Bora-Care solution into beetle holes, termite and carpenter ant galleries and decay pockets. Apply one (1) coat of Bora-Care solution to the point of surface saturation to all infested and susceptible wood, paying particular attention to infested areas. Apply two (2) coats of Bora-Care solution to those wood members with only one (1) or two (2) exposed sides. For quicker control, apply an additional coat to heavily infested areas. Allow first application to dry by waiting at least 20 minutes between applications. For specific pests to be controlled refer to **Table A** for applicable mixing instructions.

B. Basements and crawl spaces: Apply one (1) coat of diluted Bora-Care solution to the point of surface saturation to all accessible surfaces including sill plates, piers, girders, subfloors, floor joists and any wood exposed to vertical access above ground. 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. Allow first application to dry by waiting at least 20 minutes between applications.

C. Buildings on slabs: Apply Bora-Care solution into wall voids by foaming or misting. Locate each stud and drill a small hole through the wall covering to gain access to the infested area. Drill holes every 45.72 – 60.96 cm adjacent to the side of each stud and inject at least 9.858 ml of Bora-Care solution per hole. Drill at least one hole per stud bay near the floor to treat the base plate in each void. Treat entire wall area as opposed to single stud bays to completely include the infested area within the treatment zone. Cover at least 15.24 cm of slab surface area out from the penetration site.

D. Wood flooring: Treat by spray, brush or roller application. Prior to application, remove any existing finish by complete coarse sanding or stripping. Apply a two (2) parts water to one (1) part Bora-Care (2:1) solution at a rate of approximately 3.785 L of solution per 46.452 sq m 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. 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 the 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. Inaccessible wall voids, wall studs and wood members: Apply by foaming or misting into voids and channels of damaged or suspected infested wood and/or through small holes drilled into walls and baseboard areas. Space holes no more than 60.96 cm 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 surface saturation.

Note: Existing insulation may interfere with distribution of the Bora-Care solution. If necessary, move or displace insulation during or prior to treatment.

F. Foam application: Apply Bora-Care 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 88.718 to 236.582 ml of foaming agent per 3.785 L of mixed solution. 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 3.785 L of mixed solution expanded with foaming agent to produce 75.7 to 113.55 L of foam. Apply enough foam to fill void and contact all wood surfaces in the void space.

G. Roofs containing infested cellulosic materials: Apply by drilling holes through roofing surface to gain access to the infested area. Space holes no more than 91.44 cm apart in a grid pattern. Inject 59.144 to 18.288 ml of Bora-Care solution into each hole. Patch all holes with suitable materials to prevent subsequent water infiltration.

H. Foam insulation: Apply 1 or 2 applications 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 3.785 Lper 27.871 to 37.161 sq m.

Note: Some types of foam insulation, such as polyisocyanurate and extruded polystyrene, have closed cell structures that do not allow significant penetration from surface application. Inject and surface spray these types of insulation.

I. For remedial treatments: For remedial treatments: Apply a supplemental treatment of Bora-Care to concrete, block or brick on the interior of crawlspace and basement foundations to prevent shelter tubing by subterranean termites. Apply 1 or 2 applications of Bora-Care 2:1 two (2) parts water to one (1) part Bora- Care solution at the rate of 3.785 L to 37.161 sq m of surface area. In crawlspaces, apply solution 60.96 cm up from the ground on interior wall surfaces. In unfinished basements with bare slabs, apply 1 or 2 applications of Bora-Care 2:1 solution 60.96 cm up from the slab on interior foundation walls. In addition to the wall treatment, extend application up to 15.24 cm away from foundation walls onto the horizontal surface of the bare slab. Treat bath trap areas in slab construction, after obtaining access to the area, by evenly applying 236.582 ml of the 1:1 Bora-Care solution into the traps in at least a 30.48 cm band covering all sides on the slab surface area out from the trap area. Treat other termite access areas (such as plumbing penetrations, expansion joints and abutting slabs) by applying the 1:1 Bora-Care solution in at least a 30.48 cm band covering all sides of the slab surface area out from the penetration and by treating protruding utilities and adjacent wood to a height of 60.96 cm.

V. Preventative Treatment of Wooden Structures for Formosan, Drywood and Dampwood Termites, Carpenter Ants, Old House Borers, Powderpost and Other Wood Boring Beetles

Note: Bora-Care is not intended for application to soil.

Bora-Care provides only limited and temporary protection of wood in contact with the ground (see specific instructions) and is not a substitute for products registered for protection of wood in contact with the ground. Bora-Care may be applied as a treatment to protect wood from Formosan, drywood and dampwood termites, carpenter ants, old house borers, powderpost and listed wood boring beetles.

Apply when access to wooden structural components is optimized such as at the “dried-in” stage when sheathing and roofing are in place, yet before installation of insulation, wiring, plumbing and other mechanical components.

For framed wood surfaces above ground, apply to the point of surface saturation one (1) or two (2) coats of a Bora-Care (2:1) solution for subterranean termites and Formosan termites as described in Section VI. For treatment of new log structures see Section IX. Treat remainder of structural wood in a five (5) parts water to one (1) part Bora-Care (5:1) solution. Concentrate application in areas susceptible to attack, to include all sills, plates, floor joists, piers, girders and subfloors. Treat structural wood in all plumbing, electrical and ductwork areas where they penetrate walls or floors. Treat all structural wood 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 structural wood in contact with the slab, all interior and exterior wall studs and wall sheathing material. In attics, treat all structural wood including ceiling joists, trusses, top plates,

rafters and roof decking. Treat all structural wood sill plates and structural wood contacting garages.

In areas where access is limited to one (1) or two (2) sides of a wood member, including exterior wall base plates and any married studs, apply two (2) coats of Bora-Care solution to the exposed surfaces. Allow first application to dry by waiting at least 20 minutes between applications.

Treat all exterior wood including siding, fascias, soffits, eaves, and roofing.

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. The product must be applied once or twice at a dilution ratio of 2:1 water:Bora-Care.

In new construction applications for the prevention of subterranean termites, structural wood is defined as: only wood needed for the basic building structure as found in the dried-in stage of construction, including wood in direct contact with foundations, interior and exterior wall sill plates, wood studs, wood or cellulosic sheathing, floor joists and sub-flooring.

Apply when access to wooden structural components is optimized and when no further framing modifications will be made, such as after final framing inspection. If treatment is carried out prior to framing inspection, a second visit is required to ensure full treatment is still intact.

Do not use for new construction treatments if the total linear footage of the cellulosic base plates is less than 60% of the total linear distance/metres of all base plates in structure to include exterior and interior walls. In new construction with 60% or more lineal footage of base plates, but without continuous wood on every exterior wall, the Bora-Care treatment must be installed to all other exterior structural construction materials, including brick or block, to a height of 60.96 cm and extended out onto the slab a minimum of 5.08 cm to a maximum of 20.32 cm.

A. Buildings on Crawl Spaces and Basements: Apply one (1) or two (2) coats of a Bora-Care 2:1 solution in a 60.96 cm wide uninterrupted band to the point of surface saturation to all structural wood surfaces in crawl spaces and basements, to include all sills, plates, floor joists, piers, girders and subfloors as well as structural wood exposed to direct vertical access from the soil. To prevent termite shelter tubes on crawlspace walls, apply 1 or 2 applications of a Bora-Care 2:1 solution to crawlspace concrete or block walls in a 60.96 cm band up from the ground on interior wall surfaces. Apply at the rate of 3.785 L to 37.161 sq m of surface area. Treat a 60.96 cm band around construction materials and structural wood adjacent to plumbing, electrical conduit and ducts where they penetrate subfloors, if they provide a direct vertical access from the soil. Treat all structural wood, including wall studs and sills, in finished-out basements where structural wood framing is immediately adjacent to the exterior foundation walls. Spray concrete slab surface a minimum of 5.08 cm up to a maximum of 20.32 cm. To prevent termite shelter tubes on basement walls, spray all interior concrete or block foundation walls with a 60.96 cm band up from the slab area. Apply 1 or 2 applications of a Bora-Care 2:1 solution at the rate of 3.785 L to 37.161 sq m of concrete foundation wall area.

On structural wood where access is limited to one (1) or two (2) sides of wood members, such as sills and plates on foundation walls or wrapped sheathing, apply two (2) coats of Bora-Care solution. Allow first application to dry by waiting at least 20 minutes between applications. If accessible, treat the exterior of structural wood sill areas around the entire perimeter of the structure with a 60.96 cm 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 structural wood may be treated by pressure injecting Bora-Care into holes drilled into the wood at 20.32- to 25.4-cm intervals. Inject at 275.9 kPa for four (4) to six (6) seconds per hole.

B. Buildings on slabs: Apply one (1) or two (2) coats of a Bora-Care 2:1 solution to all base plates and the bottom 60.96 cm of all studs on all exterior and interior walls. When spraying base plates also treat concrete surface a minimum of 5.08 cm to a maximum of 20.32 cm in from plates. **In areas where access is limited to one (1) or two (2) sides of a structural wood member, such as sills and plates on foundation walls or wrapped sheathing, apply two (2) coats of Bora-Care solution to the exposed surfaces.** Allow first application to dry by waiting at least 20 minutes between applications. Treat all structural wood in plumbing walls and apply to any wood in bath traps as well as structural wood adjacent to plumbing, electrical conduit and duct penetrations to provide a minimum 60.96 cm wide barrier of treatment between the soil and the balance of the structure. Using 1 or 2 applications of a Bora-Care 2:1 solution treat all available plumbing penetrations at least 60.96 cm up from slab. Treat all slab surface area at least 30.48 cm out from all bath trap penetrations. Evenly treat bath traps with a minimum of 236.582 ml of the 2:1 Bora-Care solution to a maximum of 473.164 ml per 929.03 sq cm of trap. Treat any penetrations (such as plumbing, expansion joints and abutting slabs) not associated with any nearby structural wood by spraying the 2:1 Bora-Care solution on available penetrations up to 60.96 cm high and extending application to cover at least 15.24 cm of slab surface area out from penetration site.

C. Foam insulation: Treat with low-pressure surface spraying or injecting one or two applications of a Bora-Care 2:1 solution to the infested area at the rate of 3.785 L per 27.871 to 37.181 sq m.

Note: Some types of foam insulation, such as polyisocyanurate and extruded polystyrene, have closed cell structures that do not allow significant penetration from surface application. Inject and surface spray these types of insulation.

VII. Preventative Treatment for Drywood Termites and Powderpost Beetles

Apply one (1) coat of a 5:1 [18.927 L water to 3.785 L Bora-Care] solution to the point of surface saturation to all structural wood surfaces using a brush, spray or mist. Apply two (2) coats of Bora-Care solution to those surfaces where access is limited to one (1) or two (2) sides of structural wood members. Allow the first application to dry by waiting at least 20 minutes between applications.

VIII. Treatment of Exterior Wood Surfaces Less Than 5.08 Centimeters (Two Inches) Thick such as Decks, Sheds and Fences

Apply only to bare wood or to wood surfaces where an intact water repellent or finish is not present. Remove paint or finish prior to application. Apply 1 coat of Bora-Care solution to the point of surface saturation to all wood surfaces. Apply 2 coats of Bora-Care solution to heavily infested areas and to those surfaces where access is limited to 1 or 2 sides of wood members. Allow first application to dry by waiting at least 20 minutes between applications. Do not apply in rain or snow. Do not expose treated exterior wood surfaces 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 longer performance, exterior wood surfaces that have been treated with Bora-Care will require a topcoating with a water- resistant finish such as paint or exterior stain. Apply the finish or topcoat 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 Log Structures, Timbers, Beams, Pilings and Exterior Wood Members 5.08 Centimeters (Two Inches) or More Thick

Apply only to bare wood or to wood surfaces where an intact water repellent or other finish is not present. Remove paint or finish prior to application. Prior to treatment clean interior, unfinished surfaces that have accumulated dirt or cooking oils with a strong detergent. Apply 1 or 2 applications of a Bora-Care 2:1 solution to the point of surface saturation to all interior and exterior wood surfaces. Refer to application chart for minimum amount of Bora-Care to treat various sized logs or beams. Typically, two (2) coats of solution are required to treat round logs 25.4 cm or greater in diameter and rectangular logs larger than 15.24 cm x 30.48 cm. Wait at least one (1) hour before re-application. Apply two (2) coats of Bora-Care solution to log ends, notches, corners and sill logs. Actual number of coats necessary to meet minimum requirements will depend upon actual wood size, surface porosity and number of sides accessible for treatment. Do not apply in rain or snow. Do not expose treated exterior wood surfaces 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 that have been treated with Bora-Care will require a topcoating with a water- resistant finish, paint or exterior stain. Apply the finish or topcoat 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.

X. Dip Treating Logs and Lumber

Prepare a dip treating solution 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. Sticker bundled wood to ensure the solution covers all wood surfaces. Submerge logs and/or lumber 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.

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 a 40% disodium octaborate tetrahydrate (or borate) gel product.

XII. General Pest Control Applications

The application of Bora-Care to the surface of wood in new construction or to wood surfaces inside wall void areas in existing structures helps to prevent the establishment of cockroach, ant (except Fire ants, Harvester ants, Pharaoh ants), silverfish, earwig, boxelder bug, millipede and cricket infestations that come in direct contact with these treated areas. Apply 3.785 L of Bora-Care solution per 37.161 sq m of surface area or refer to -**Tables A and B** when applying as a surface application.

XIII. Bora-Care Total Wood Preservative

A wood preservative for protection and treatment of wood against wood destroying insects including beetles, termites and carpenter ants. Treatment is permanent provided 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 that facilitate rapid penetration of wood, regardless of moisture content. It is designed for preventative and/or remedial treatment of wood in both new and existing structures against wood boring insects including:

Subterranean Termites (*Reticulitermes, Heterotermes, Coptotermes*)
Dampwood Termites (*Zootermopsis*)
Drywood Termites (*Kalotermes, Incisitermes*)
Powderpost Beetles (*Lyctidae, Bostrichidae*)
Anobiid Beetles (*Anobiidae*)
Old House Borers, Longhorn Beetles (*Cerambycidae*)
Carpenter Ants (*Camponotus*)

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

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. To all wood surfaces apply to the point of surface saturation one (1) coat of either a two (2) parts water to one (1) part Bora-Care (2:1) solution for remedial control of wood-infesting insects, two (2) parts water to one (1) part Bora-Care (2:1) foam or mist solution or a five (5) parts water to one (1) part Bora-Care (5:1) solution for insect prevention. 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. Do not expose treated exterior wood surfaces 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. Prior to treatment, clean interior, unfinished surfaces that have accumulated dirt or cooking oils with a strong detergent. Apply 1 or 2 applications of a Bora-Care (2:1) solution to the point of runoff by spray or brush to all interior and exterior wood surfaces. Refer to application chart for minimum amount of Bora-Care to treat various sized logs or beams. Typically, two (2) coats of solution will be required to treat round logs 25.4 cm or greater in diameter and rectangular logs larger than 15.24 cm x 30.48 cm. Wait at least one (1) hour between applications. Also apply two (2) coats of Bora-Care solution 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, protect exterior treated surfaces with a plastic tarp for at least 48 hours after treatment.

3. Dip Treating Logs and Lumber: Prepare a dip treating solution 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. Sticker bundled wood to ensure the solution covers all wood surfaces. Submerge logs and/or lumber 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 that have been treated with Bora-Care require a topcoating with a water-resistant finish such as paint or exterior stain. Apply the finish or topcoat 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.).

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

Harmful if inhaled or absorbed through skin.

Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or spray mist.

Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco.

Wear long-sleeved shirt, long pants, hat, eye goggles and chemical-resistant gloves during all activities with this product. Wear a dust/mist mask respirator when mixing and while spraying in enclosed spaces.

Remove contaminated clothing and wash clothing before reuse. Avoid contamination of food or feed.

FIRST AID

If swallowed: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

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 centre 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 centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

Treat symptomatically.

ENVIRONMENTAL HAZARDS

Toxic to aquatic organisms.

Toxic to birds and small wild mammals.

Toxic to certain beneficial insects.

As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

STORAGE

Store in a dry place. Do not freeze.

Do not store where children or animals may gain access.

DISPOSAL

For Recyclable Containers

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the treatment site.
2. Make the empty, rinsed container unsuitable for any further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For Non-Returnable Containers

1. Triple- or pressure-rinse the empty container. Add the rinsings to the treatment site.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

For Returnable-Refillable Containers

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

Nisus Corporation
100 Nisus Drive • Rockford, TN 37853 USA
(800) 264-0870

Made in the U.S.A.

Issued Date: 8/24/1989
Revised Date: 01/01/16

MATERIAL SAFETY DATA SHEET

BORA-CARE®

Health Emergencies: INFOTRAC® (800) 535-5053

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Manufacturer: Nisus Corporation
100 Nisus Drive
Rockford, TN 37853
(800) 266-0870

Product Trade Name: **BORA-CARE®**
US EPA Registration No. 64405-1
Registration No. 30157 Pest Control Products Act (Canada)
Chemical Family: Glycol borate solution
Formula: Proprietary Mixture CAS No.: N/A

SECTION 2 – INGREDIENTS INFORMATION

40% Disodium Octaborate Tetrahydrate

60% mixed glycols (monoethylene and polyethylene glycols are used in the manufacturing process)

SECTION 3 – HEALTH HAZARD INFORMATION

Hazard Rating: NFPA	Health	1	Slight hazard
	Flammability	0	
	Reactivity	0	

Material or Component: Manufactured using Ethylene Glycol CAS No. 107-21-1
TLV 50.00 ppm ACGIH Type CEIL
(Note this is a raw material and there is no free ethylene glycol present.)

EYE CONTACT: Causes moderate eye irritation. Direct contact may cause burning, tearing and redness in sensitive individuals.
SKIN CONTACT: This material is essentially non-irritating. Prolonged or repeated exposure to this material may cause softening of the skin. Persons with preexisting skin disorders may be more susceptible to the effects of this material. Harmful if absorbed through skin.
INGESTION: Ingestion of large amounts may cause nausea, mental sluggishness followed by difficulty in breathing and heart failure, kidney and brain damage, possibly death.
INHALATION: Harmful if inhaled. Breathing high concentrations of vapors may cause nausea, dizziness or drowsiness, and irritation of the nose and throat. Preexisting lung disorders may be aggravated by exposure to this material.

SECTION 4 - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: 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.
SKIN CONTACT: Take off contaminated clothing. Immediately rinse skin with plenty of water for 15-20 minutes.
EYE CONTACT: 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.
INGESTION: SEEK EMERGENCY MEDICAL ATTENTION If the victim is drowsy or unconscious, place on the left side with the head down. Do not give anything by mouth. If victim is conscious and alert, vomiting should be induced for ingestion of more than 1 – 2 tablespoons for an adult, preferably with syrup of ipecac under direction from a physician or poison center. If syrup of ipecac is not available, vomiting can be induced by gently placing two fingers in back of throat. If large amounts are ingested, treat for glycol and borate toxicity. If possible, do not leave victim unattended.

NOTE TO PHYSICIAN: Treat for exposure to glycols. Contains borates. Monitor electrolytes.

SECTION 5 - FIRE AND EXPLOSION DATA

FLASH POINT Above 220°F (Tag Closed Cup)
FLAMMABLE LIMITS: Not known.
EXTINGUISHING MEDIA: CO_2, dry powder or universal type foam.
FIRE AND EXPLOSION HAZARDS: This material will not readily ignite.
FIRE FIGHTING PROCEDURES: Avoid inhaling smoke. The use of a SCBA is recommended for fire fighters. Water spray may be useful in minimizing vapors and cooling containers exposed to heat and flame.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PRECAUTIONS IN CASE OF RELEASE OR SPILL: Absorb with organic liquid absorbent. Do not let material or washwaters enter sewers or waterways. Where large release has occurred see ecological section.

SECTION 7 - HANDLING AND STORAGE

HANDLING AND STORAGE PRECAUTIONS: Store between 40°F and 90°F. Do not store in direct sunlight. Keep containers tightly closed.
Store in areas not accessible to children and pets.
Do not store with strong oxidizers.
Locked storage is required for EPA registered materials.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

RESPIRATORY PROTECTION: Good ventilation. When applying Bora-Care in confined spaces, provide ventilation or an exhaust system or use of a NIOSH-approved dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C) with a prefilter approved for pesticides (MSHA/NIOSH approval prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval prefix TC-14G) or a NIOSH-approved respirator with any N, R, P or HE prefilter is recommended.
VENTILATION: Exhaust to ventilate.

Bora-Care is easily washed form eyes and skin.

US EPA requires the following personal protective equipment when applying registered materials:

PROTECTIVE GLOVES: Some materials that are chemical-resistant to this product are barrier laminate; butyl, nitrile, neoprene and natural rubbers ≥ 14 mils; polyethylene; polyvinyl chloride; and viton ≥ 14 mils. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

EYE PROTECTION: Use safety glasses, goggles or face shield.
OTHER PROTECTIVE EQUIPMENT: Applicators, mixers and other handlers must wear long-sleeved shirt, long pants, socks, shoes, chemical-resistant gloves and protective eyewear. It is recommended that a source of clean water be available in the work area for flushing eyes and washing skin.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear viscous gel
% Volatile: 36% by weight by TGA (as water)
Vapor Pressure: Negligible (<0.1)
Odor: None
pH: 50% aqueous solution 6.9 - 7. 1
Specific Gravity: 1.38 g/ml
Boiling Point: Above 212° F
% Solubility in Water: 100%

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID: Exposure to strong oxidizing agents. INCOMPATIBILITY (MATERIALS TO AVOID). This material is incompatible with strong oxidizing agents. This product may corrode aluminum.
HAZARDOUS POLYMERIZATION: Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS: Ethylene oxide, carbon monoxide, carbon dioxide.

SECTION 11 - TOXICOLOGY

Bora-Care is of very low acute mammalian toxicity.

Acute oral LD_{50} - greater than 5000 mg/kg body weight (Sprague-Dawley male and female rats).
Acute dermal LD_{50} - greater than 2000 mg/kg body weight (New Zealand Albino male and female rabbits).
Acute inhalation LC_{50} – 5.06 mg/L for 4 hours (Sprague-Dawley male and female rats).
Intentional misuse by deliberately concentrating and inhaling this material may be harmful or fatal.
None of the major constituents of this material have been identified as carcinogens or probable carcinogens by IARC or OSHA.
The RfD for ethylene glycol is 2.0 mg/kg/day based on kidney toxicity in rats. US EPA has a high confidence in the study on which the RfD was based. The RfD is protective of animal demonstrated chronic and reproductive effects. Preexisting kidney disorders may be aggravated by exposure to this material.
Borates have been shown to have some chronic toxicity in animals fed high doses, similar to that of alcohol, but this has not been found in humans.

SECTION 12 – ECOLOGICAL INFORMATION

General: Boron (B) is the element in disodium octaborate tetrahydrate (the active ingredient in Bora-Care) which is used by convention to report borate product ecological effects. To convert disodium octaborate tetrahydrate into the equivalent boron (B) content, multiply by 0.2096. Bora-Care contains 8.4% B by weight.
Phytotoxicity: Boron is an essential micronutrient for healthy growth of plants; however, it can be harmful to boron sensitive plants (e.g. grass and ornamentals) in high quantities.
Algal Toxicity: Green algae, *Scenedesmus subspicatus*
96-hr EC_{10} = 24 mg B/L
Invertebrate Toxicity: Daphnids, *Daphnia magna straus*
24-hr EC_{50}=242 mg B/L
Test substance: sodium tetraborate
Fish Toxicity:
Seawater:
Dab, *Limanda limanda*
96-hr LC_{50} 74 MG B/LL
Freshwater:
Rainbow trout, *S. gairdneri* (embryo-larval stage)
24-day LC_{50} = 88 mg B/L
32-day LC_{50}) = 54 mg B/L
Goldfish, *Carassius auratus* (embryo-larval stage)
7-day LC_{50} = 65 mg B/L
3-day LC_{50} = 71 mg B/L

The LC_{50} of ethylene glycol = 9500 to 51,000 mg/l depending on organism, so is of no relevance. See above boron ecological information.

In the event of accidental environmental release, dilute with water.

Bora-Care is rapidly diluted to natural background micronutrient levels of boron, and the organic glycol components are biodegraded by microorganisms with a half-life of between 1 and 10 days (90% in one day using OECD 302B Test).

SECTION 13 – DISPOSAL CONSIDERATION

Make up only the amount of solution to be used that day. Excess solution can be used in treatment or further diluted with water and this diluted solution used to dilute product in future applications.

WASTE DISPOSAL METHOD: Unopened containers may be returned to Nisus corporation for reprocessing. Contact your State Pesticide, Environmental Control Agency or local authorities for proper disposal guidelines. Most sewage facilities will allow discharge to sewage of small volumes. Very large volume can retard sewage processing.

SECTION 14 – TRANSPORTATION INFORMATION

DOT Hazard Classification: Not Regulated

SECTION 15 – REGULATORY INFORMATION

US EPA Registration No. 64405-1
Registration No. 30157 Pest Control Products Act (Canada)
Chemical Family: Glycol borate solution

Hazard Rating: NFPA	Health	1	Slight hazard
	Flammability	0	
	Reactivity	0	

SECTION 16 – OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein. This information and product are furnished on the condition that the persons receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use thereof.

100 Nisus Drive • Rockford, TN 37853 USA • (800) 264-0870

100 Nisus Drive • Rockford, TN 37853 USA
www.nisuscorp.com • 800-264-0870