# BORA-CARE COMMERCIAL

# **Opportunity knocks on steel.**

THE COMMERCIAL SOLUTION TO TERMITES.



Bora-Care Commercial is applied during new construction to all steel, concrete, wood and other building materials two feet up from the foundation as well as to foundation penetrations such as pipe and conduit penetrations and expansion joints.



#### Bora-Care Commercial is used for commercial structure new construction termite treatments.

- Bora-Care Commercial is a borate-based, EPA-registered primary termiticide.
- Applied during new construction to all steel, concrete, wood and other building materials two feet up from the foundation as well as to foundation penetrations such as pipe and conduit penetrations and expansion joints.
- Creates a barrier at the foundation of the structure; termites cannot build tubes across treated material to gain access to the structure.
- Speeds up the building process by allowing treatment any time during the dried-in phase of construction before the insulation is installed.
- Helps to get slabs poured quickly. Getting the slab poured is a critical milestone in the construction process, and now having the pretreatment done does not delay the pour.
- Using Bora-Care can earn builders green points in many green building programs.

Currently not available in Florida

Visit www.nisuscorp.com for the complete line of pest products. 100 Nisus Drive = Rockford, TN 37853 = (800) 264-0870 = www.nisuscorp.com





#### Glycol Borate 40% Termiticide Concentrate For the Prevention and Control of: Subterranean Termites, Formosan Termites

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

#### **Active Ingredient:** Disodium Octaborate Tetrahydrate (CAS No. 12280-03-4).. 40% Other Ingredients 60%

EPA Reg. No. 83465-1-64405 EPA Est. 64405-TN-1 U.S. Patent Nos. 5,645,828; 7,597,902

### **Keep Out of Reach of Children** CAUTION

#### First Aid **Borate Pesticide**

If Inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to- mouth, if possible.</li> </ul>
If on Skin or Clothing	<ul> <li>Take off contaminated clothing.</li> <li>Immediately rinse skin with plenty of water for 15-20 minutes.</li> </ul>
If in Eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>

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.

## PRECAUTIONARY STATEMENTS

#### **Hazards to Humans & Domestic Animals**

CAUTION: Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash clothing before reuse. Avoid contamination of food or feed.

#### **Environmental Hazards**

(For product in containers less than 5 gallons) This pesticide is toxic to fish and wildlife. Do not apply directly to water, to intertidal 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.

#### **Environmental Hazards**

(For product in containers 5 gallons or greater) This pesticide is toxic to fish and wildlife. Do not apply directly to water, to intertidal 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. 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.

#### **DIRECTIONS FOR USE**

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

#### Notice

Read and understand the entire label before using. Use only according to label directions.

Before buying or using this product, read Warranty **Disclaimer** and **Limitation of Remedies** statements 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 Disclaimer and Limitation of Remedies.

#### **Use Restrictions**

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.

#### **Phytotoxicity**

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.

#### **Personal Protective Equipment (PPE)**

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

Applicators, mixers and other handlers must wear long-sleeved shirt, long pants, socks, shoes, chemical-resistant gloves and protective eyewear. When applying Bora-Care Commercial solutions 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.

#### **User Safety Requirements**

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

#### **User Safety Recommendations**

Users should:

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

#### I. Mixing Instructions

Bora-Care Commercial 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 Commercial 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 Commercial concentrate. Mix until uniform.

Use 1:1 Bora-Care Commercial solutions within 24 hours after mixing. Do not leave unused solution under pressure or in tank overnight. Clean and/or flush equipment and lines with water after use.

This product cannot be mixed with any product containing a label prohibition against such mixing.

For tracking purposes an appropriate marker dye or pigment may be added to the Bora-Care Commercial solution. Refer to the dye or pigment product label for the recommended amount to add to the Bora-Care Commercial solution.

Use soap and water to clean up tools.

# II. Dilution Rations by Volume Table A

Target Pests	Mixing Ratios Water plus Bora-Care Commercial	Application Notes
Subterranean and Formosan Termites	1:1	For preventative treatments apply a 1:1 dilution ratio for all treatments by spray, injection, brush or roller.

Table B

		Part	% Disodium	
Parts Water	Во	ra-Care	Octaborate	
	Commercial		Tetrahydrate	
1	to	1	23%	

#### III. General Information

Bora-Care Commercial solution 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. Prior to using this product, consult with your state regulatory agency to see if additional qualifications are required to apply this product.

Bora-Care Commercial contains an inorganic borate salt, soluble in water, with insecticidal properties effective against wood destroying organisms, including the target pests listed below. This product may be used as a long-term protective or preventive treatment (before signs of infestations are observed) of wood in new construction. Bora-Care Commercial solution 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, continuous water or in direct contact with the ground. The active ingredient in Bora-Care Commercial is an inorganic salt and once in place it will not decompose or volatilize out of the wood.

Subterranean Termites: *Reticulitermes, Heterotermes*Formosan Termites: *Coptotermes* 

Bora-Care Commercial solutions 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 Commercial solutions 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.

In structures where a soil treatment/barrier termiticide has been applied and/or termite bait system installed, apply Bora-Care Commercial solution 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.

# IV. Preventative Treatments and Pretreatments for Subterranean Termites (Crawl Space, Basement and Concrete Slab)

**Note:** This treatment serves as a primary treatment for the control of subterranean termites. This product must be applied with a 1:1 Bora-Care Commercial solution.

In new construction applications for the prevention of subterranean termites, structural 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 subflooring.

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.

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

A. Buildings on concrete slabs (including structures with little or no structural wood in contact with the concrete slab foundation): Apply 1 coat of a 1:1 Bora-Care Commercial solution to all wood, metal and/or non-cellulosic base plates and the bottom 2 feet of all wood, metal and/or non-cellulosic studs on all exterior and interior walls in contact with the concrete slab. Treat at the rate of 1 gallon of solution to 200 linear feet of stud walls. Treat all wood in plumbing walls, bath traps and any wood adjacent to plumbing, electrical conduit and duct penetrations to provide a minimum 2-foot wide barrier of treatment between the bottom of the penetration site and the balance of the structure. In areas where access is limited to 1 or 2 sides of a structural wood member, such as sills and plates on foundation walls, married studs or wrapped sheathing, apply 2 coats of Bora-Care Commercial

**solution to the exposed surfaces.** Allow first application to dry by waiting at least 20 minutes between applications. When spraying base plates, also treat the concrete slab a minimum of 2 inches to a maximum of 8 inches out from plates. Treat the concrete slab where any visible cracks may be occurring, extending treatment 8 to 12 inches out on each side of the concrete slab crack.

Treat all penetrations (such as plumbing, expansion joints and abutting concrete slabs) by spraying the 1:1 Bora-Care Commercial solution up to 2 feet high and extending application to cover at least 6 inches of concrete slab out from penetration site.

Evenly treat bath traps with a minimum of 8 ounces of the 1:1 Bora-Care Commercial solution to a maximum of 16 ounces per square foot of trap. Treat all concrete slabs at least 1 foot out from all bath trap penetrations.

Concrete, cinder block or non-cellulosic exterior walls must be treated with a 1:1 Bora-Care Commercial solution 2 feet on the interior side of wall surface up from the concrete slab. This treatment must be applied as a continuous 2 foot barrier to all interior surfaces of all exterior walls. Treat at the rate of 1 gallon of a 1:1 Bora-Care Commercial solution to 400 square feet of surface area.

Treat all penetrations (such as plumbing, expansion joints and abutting concrete slabs) by spraying the 1:1 Bora-Care Commercial solution up to 2 feet high and extending application to cover at least 6 inches of concrete slab out from penetration site.

Evenly treat bath traps with a minimum of 8 ounces of the 1:1 Bora-Care Commercial solution to a maximum of 16 ounces per square foot of trap. Treat all concrete slabs at least 1 foot out from all bath trap penetrations.

Concrete, cinder block or non-cellulosic exterior walls must be treated with a 1:1 Bora-Care Commercial solution 2 feet on the interior side of wall surface up from the concrete slab. This treatment must be applied as a continuous 2 foot barrier to all interior surfaces of all exterior walls. Treat at the rate of 1 gallon of a 1:1 Bora-Care Commercial solution to 400 square feet of surface area.

B. Buildings on Crawl Spaces and Basements: Apply 1 coat of a 1:1 Bora-Care Commercial solution in a 2 foot 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. Spray the concrete slab surface a minimum of 2 up to a maximum of 8 inches. To prevent termite shelter tubes on basement walls, spray all interior concrete or block foundation walls with a 2-foot band up from the concrete slab. Apply the 1:1 Bora-Care Commercial solution at the rate of 1 gallon per 400 square feet of concrete foundation wall area. To prevent termite shelter tubes on crawl space walls, apply a 1:1 Bora-Care Commercial solution to crawl space concrete or block walls in a 2-foot band up from the ground on interior wall surfaces. Apply at the rate of 1 gallon to 400 square feet of surface area. Treat a 2-foot 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.

On structural wood where access is limited to 1 or 2 sides of wood members, such as sills plates and headers on foundation walls, married studs or wrapped sheathing, apply 2 coats of Bora-Care Commercial 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 2-foot wide band of a 1:1 Bora-Care Commercial 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 Commercial solution into holes drilled into the wood at 8 to 10 inch intervals. Inject at 40 psi for 4 to 6 seconds per hole.

**C. Foam insulation:** Treat with low-pressure surface spraying or by injecting a 1:1 Bora-Care Commercial solution to the infested area at the rate of 1 gallon per 300 to 400 square feet.

**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.

#### Storage and Disposal

For product packaged in rigid, non-refillable containers less than or equal to 5 gallons.

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

Pesticide Storage: Store in a cool, dry (preferably locked) storage area inaccessible to children and pets. Do not freeze. Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Container Management: Nonrefillable container; do not reuse or refill this container. Triple rinse (or equivalent) container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times, then offer for recycling, if available; or reconditioning, if appropriate; or puncture and dispose of in a sanitary landfill; or by incineration.

#### Storage and Disposal

For product packaged in rigid, non-refillable containers greater than 5 gallons.

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

Pesticide Storage: Store in a cool, dry (preferably locked) storage area inaccessible to children and pets. Do not freeze. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Container Management: Nonrefillable container; do not reuse or refill this container. Triple rinse (or equivalent) container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling, if available; or reconditioning, if appropriate; or puncture and dispose of in a sanitary landfill; or by incineration.

#### **Warranty Disclaimer**

Manufacturer warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent not prohibited by applicable law, MANUFACTURER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANT-ABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

#### Inherent Risks of Use

The directions for use of this product are believed to be adequate and must be carefully followed. It is impossible to eliminate all risks associated with use of this product. Lack of performance or other unintended consequences may result because of such factors as use of the product contrary to label instructions, abnormal conditions, the presence of other materials, climatic conditions or the manner of use/application, all of which are beyond the control of the Manufacturer. The buyer/user assumes all such risks.

#### Limitation of Remedies

To the extent not prohibited by applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability or other legal theories) shall be limited to, at Manufacturer's election, one of the following:

- Refund of purchase price paid by buyer or user for product bought, or
- 2. Replacement of amount of product used.

To the extent not prohibited by applicable law: a) Manufacturer shall not be liable for losses or damages resulting from handling or use of this product unless

Manufacturer is promptly notified of such loss or damage in writing; and b) IN NO CASE SHALL MANUFACTURER BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OR LOSSES, INCLUDING WITHOUT LIMIT, HEALTH RELATED DAMAGES OR INJURIES.

The terms of this **Warranty Disclaimer** and **Limitation of Remedies** cannot be varied by any written or verbal statements or agreements. No employee or sales agent of

Manufacturer or the seller is authorized to vary or exceed the terms of this **Warranty Disclaimer** or **Limitation of Remedies** in any manner.

It is not intended that this product be used to practice any applicable patent, whether mentioned or not, without procurement of a license, if necessary, from the owner, following investigation by the user.



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#### **SAFETY DATA SHEET**



Health Emergencies: INFOTRAC® (800) 535-5053

#### 1. PRODUCT AND COMPANY INFORMATION

Product Identity: Bora-Care® Commercial

Recommended use of the chemical and restrictions on use:

Termiticide, Insecticide, and Fungicide Concentrate. Read and understand the entire label before using. Use only according to label directions. It is a violation of Federal law to use this product in a manner inconsistent to label directions.

Manufacturer: Nisus Corporation

100 Nisus Drive Rockford, TN 37853

**Telephone:** Phone: (800) 264-0870

Fax: (865) 577-5825

Emergency Phone: 800-535-5053 (INFOTRAC)

SDS Date of Preparation: 01/12/16

#### 2. HAZARDS IDENTIFICATION

#### **GHS Classification:**

Physical	Health	Environment
Not Hazardous	Acute Toxicity Oral Category 4 Specific Target Organ Toxicity – Repeat Exposure Category 2 Reproductive Toxicity Category 2	Aquatic Acute Toxicity Category 3

#### **GHS Label Elements:**





#### Signal Word: Warning!

#### Statements of Hazard

H302 Harmful if swallowed.

H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to kidneys by prolonged or repeated exposure by ingestion.

H412 Harmful to aquatic life with long lasting effects.

#### **Precautionary Statements**

P260 Do not breathe mist or vapors.

P264 Wash thoroughly after handling.

P270 Do not eat, drink, or smoke when using this product.

P273 Avoid release to the environment.

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents and container in accordance with local and national regulations.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount
Ethylene Glycol	107-21-1	40-60%
Disodium Octaborate Tetrahydrate	12280-03-4	40%
Non-Hazardous Ingredient	Proprietary	0-20%

The exact formulation is being withheld as a trade secret.

#### 4. FIRST AID MEASURES

**Eye:** Flush victim's eyes with large quantities of water, while holding the eyelids apart. Get medical attention if irritation develops or persists. **Skin:** Wash skin thoroughly with soap and water. Get medical attention if irritation develops. Remove and launder clothing before re-use.

**Ingestion:** Do not induce vomiting unless directed to do so by a medical professional. Get immediate medical attention for large ingestions or if symptoms develop or if you feel unwell.

**Inhalation:** Move victim to fresh air. If breathing is difficult or irritation persists, get medical attention.

**Most important Symptoms:** May cause eye and skin irritation. Inhalation of mists may cause mild mucous membrane and respiratory irritation. Harmful if swallowed. Repeated ingestion may cause kidney damage.

**Indication of immediate medical attention/special treatment:** Immediate medical attention is required for large ingestions.

#### 5. FIRE FIGHTING MEASURES

**Suitable (and Unsuitable) Extinguishing Media:** Use media appropriate for surrounding fire. Cool fire exposed containers and structures with water.

**Specific hazards arising from the chemical:** A solid stream of water or foam directed into hot, burning liquids can cause frothing. Burning may product carbon monoxide, carbon dioxide, and ethylene oxide.

Special Protective Equipment and Precautions for Fire-Fighting Instructions: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Contain all runoff.

#### **6. ACCIDENTAL RELEASE MEASURES**

Personal Precautions, Protective Equipment, and Emergency Procedures: Evacuate spill area and keep unprotected personnel away. Wear appropriate protective clothing as described in Section 8. Avoid releases to the environment.

**Methods and Materials for Containment and Cleaning Up:** Dike and collect liquid or absorb with an inert absorbent and place in appropriate containers for disposal. Prevent spill from entering sewers and watercourses. Report releases as required by local, state and federal authorities.

#### 7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with the eyes, skin and clothing. Avoid breathing mists or aerosols. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation. Wash thoroughly with soap and water after handling. Remove contaminated clothing immediately and wash before reuse. Remove PPE immediately after handling. Wash thoroughly after using and change into clean clothing. Keep containers closed when not in

Nonrefillable container. Do not reuse containers. Product residues in empty containers can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for Safe Storage, Including Any Incompatibilities: Store in a cool, dry, well-ventilated area away from incompatible materials. Keep out of reach of children. Do not freeze. Protect from physical damage.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Exposure Guidelines:**

•	
Ethylene Glycol	100 mg/m <sup>3</sup> Ceiling ACGIH TLV
Disodium Octaborate Tetrahydrate	2 mg/m³ TWA ACGIH TLV (Inhalable) 6 mg/m³ STEL ACGIH TLV
	(Inhalable)

**Engineering Controls:** Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Respiratory Protection: In operations where exposure levels are exceeded, a NIOSH approved respirator with dust/mist cartridges with

approved pesticide prefilter or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice. Refer to the product label for additional information.

Skin Protection: Wear impervious gloves such as butyl rubber, nitrile, neoprene, polyethylene, polyvinyl chloride, or Viton. Follow instructions for Category C on an EPA resistance category selection chart for more options.

Eye Protection: Wear safety goggles or glasses where splashing is possible.

Other: Wear long-sleeve shirts, long pants, socks and shoes when using this product. Suitable washing facilities should be available in the

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance And Odor: Clear viscous gel with no odor.

Physical State: Viscous gel Odor Threshold: Not established

Vapor Density: Not determined

Initial Boiling Point/Range: >212°F (>100°C)

Solubility In Water: Soluble Vapor Pressure: Negligible Relative Density: 1.38 **Evaporation Rate:** Not determined

Melting/Freezing Point: Not determined **pH:** 6.9-7.1 (50% solution in water) Percent Volatile: 36% by weight as water Octanol/Water Coefficient: Not determined

Solubility: Soluble in water

**Decomposition Temperature:** Not determined Viscosity: 8000-11,000 centipoise at room temperature

Flammability (solid, gas): N/A

Flashpoint: >220°F (104°C) TOC Autoignition Temperature: None Flammable Limits: LEL: Not determined **UEL:** Not determined

#### 10. STABILITY AND REACTIVITY

Reactivity: Not normally reactive

Chemical Stability: Stable under normal storage and handling

Possibility of Hazardous Reactions: None known.

Conditions to Avoid: None known.

Incompatible Materials: Avoid strong oxidizing agents and aluminum.

Hazardous Decomposition Products: When heated to

decomposition emits carbon monoxide, carbon dioxide, and ethylene

oxide

#### 11. TOXICOLOGICAL INFORMATION

#### **HEALTH HAZARDS:**

Ingestion: Harmful if swallowed. Repeated or high levels of ingestion may cause potentially fatal kidney damage.

Inhalation: Inhalation of mists may cause irritation of the nose, throat and upper respiratory tract.

Eye: May cause slight irritation with redness, pain and tearing. Product was not irritating in a study with rabbits.

Skin: May cause irritation on prolonged or repeated contact. Product was not irritating in a study with rabbits. Negative in a guinea pig sensitization study.

Chronic: Ethylene glycol causes kidney damage through repeated ingestion.

Sensitization: This material is not known to cause sensitization. Carcinogenicity: None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA. Germ Cell Mutagenicity: No data available

Reproductive Toxicity: Ethylene glycol has been found to cause birth defects in laboratory animals. The significance of this finding to humans has not been determined.

#### **Numerical Measures of Toxicity:**

Product Toxicity Data:

Oral rat LD<sub>50</sub>: >5000 mg/kg; Dermal rabbit LC<sub>50</sub>: >5050 mg/kg; Inhalation rat LC<sub>50</sub>: >5.06 mg/L (no mortality was observed in any test)

Component Toxicity Data:

Ethylene Glycol: Oral rat LD<sub>50</sub>: 4700 mg/kg; Dermal rabbit LC<sub>50</sub>:

Disodium Octaborate Tetrahydrate: Oral rat LD<sub>50</sub>: 3500-4100 mg/kg; Dermal rabbit LD<sub>50</sub>: >2000 mg/kg; Inhalation rat LC<sub>50</sub>: >2.0 mg/L

#### 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity:**

Ethylene Glycol: LC<sub>50</sub> Fathead Minnow: <10,000 mg/L/96 hr.; EC<sub>50</sub>

Daphnia Magna: 100,000 mg/L/48 hr; Bacterial (Pseudomonas putida): 10,000 mg/l; Protozoa (Entosiphon sulcatum and Uronema parduczi; Chatton-Lwoff): >10,000 mg/l; Algae (Microcystis aeruginosa): 2,000 mg/l; Green Algae (Scenedesmus quandricauda): >10,000 mg/l Disodium Octaborate Tetrahydrate: EC<sub>10</sub> Green Algae: 24 mg B/L/96 hr; LC<sub>50</sub> Daphnia Magna: 133 mg B/L/48 hr; NOEC-LOEC Daphnia Magna: 6-13 mg B/L/21-day; LC<sub>50</sub> Limanda limanda: 74 mg B/L/96 hr; LC<sub>50</sub> Rainbow Trout: 150 mg B/L/24-day, 100 mg B/L/32-day; LC<sub>50</sub> Goldfish: 46 mg B/L/7-day, 178 mg B/L/3-day

This product is classified as harmful to the aquatic environment. Releases to the environment should be avoided.

Persistence and Degradability: Ethylene glycol is readily biodegradable (97-100% in 2-12 days). Boron is naturally occurring and ubiquitous in the environment. Disodium Octaborate Tetrahydrate degrades to boron.

Bioaccumulative Potential: Ethylene glycol: A BF of 10 reported for ethylene glycol in fish, Golden ide (Leuciscus idus melanotus), after 3 days of exposure suggests the potential for bio concentration in aquatic organisms is low. Disodium Octaborate Tetrahydrate: Log K<sub>ow</sub>: -0.7570 at 25°C.

Mobility in Soil: Disodium Octaborate Tetrahydrate is soluble in water and is leachable through normal soil.

Other Adverse Effects: Some plants are sensitive to boron. Avoid releases into the environment. This product is designed to be used for certain types of wood destroying insects. Use product only as directed on the label. Avoid all unintended releases and releases to ground water. Do not apply to water or to intertidal 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. See product label for full instructions and restrictions on use.

#### 13. DISPOSAL CONSIDERATION

Dispose in accordance with local, state and federal environmental regulations. Do not contaminate water when disposing of washwaters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, ocean, or other water 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.

#### 14. TRANSPORTATION INFORMATION

DOT Hazardous Materials Description: Not Regulated (unless package contains a reportable quantity)

Note: If a shipment of a reportable quantity (10,000 lbs/870 gal) in a single package is involved, the following information applies:

Proper Shipping Name: RQ, Environmentally hazardous substance, liquid, n.o.s. (Ethylene glycol)

UN Number: UN3082

Hazard Class/Packing Group: 9. III

Labels Required: Class 9

#### 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

#### FIFRA Labeling:

**Bora-Care Commercial** EPA Reg. No. 83465-1 Keep Out of Reach of Children **CAUTION** PRECAUTIONARY STATEMENTS **Hazards to Humans & Domestic Animals** 

#### **PRECAUTIONARY STATEMENTS**

Wear long sleeved shirt & long pants, socks, shoes and chemical resistant gloves (such as Barrier Laminate, Butyl Rubber, Nitrile Rubber, Neoprene Rubber, Polyvinyl Chloride (PVC), Viton or others listed in Category C on an EPA chemical resistance category selection chart).

**CERCLA:** This product has a reportable quantity (RQ) of 10,000 lbs based on the RQ for ethylene glycol of 5,000 lbs present at 40-60%. Some states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.

SARA Hazard Category (311/312): Acute Health, Chronic Health

**SARA 313:** This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Ethylene Glycol 107-21-1 40-60%

**EPA TSCA Inventory:** This product is regulated under FIFRA, thus exempt.

#### **16. OTHER INFORMATION**

NFPA Rating:

Health = 2 Flammability = 1 Instability = 0

HMIS Rating:

Health = 2 Flammability = 1 Physical Hazard = 0

SDS Revision History: 11/01/03: New SDS 01/12/16: Revised

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# **NOTES**

