



**ACCEPTED**  
 MAY 25 2007  
 Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 19713-286

# LUM-BOR™

## Insecticide/Fungicide

For the preservation, protection and preventative treatment of wood\* against the decay fungi and wood-destroying insects and for remedial control of such pests in infested wood.

\*Also for wood-foam composite structural components.

**ACTIVE INGREDIENT:**

Disodium Octaborate Tetrahydrate  
 (Na<sub>2</sub>B<sub>8</sub>O<sub>13</sub>-4H<sub>2</sub>O) ..... 98.0%

**OTHER INGREDIENTS:** ..... 2.0%

**TOTAL:** ..... 100.0%

(Product contains 2% H<sub>2</sub>O-absorbed moisture)

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

See FIRST AID Below

EPA Reg. No. 19713-286

EPA Est. No. 19713-

Net Contents: \_\_\_\_\_

FIRST AID
<p><b>IF SWALLOWED:</b></p> <ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious or convulsing person.</li> </ul>
<p><b>IF IN EYES:</b></p> <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>
<p>Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment. For information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378.</p>

PRECAUTIONARY STATEMENTS
<p style="text-align: center;"><b>Hazards to Humans and Domestic Animals</b></p> <p><b>CAUTION:</b> Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.</p> <p><b>PERSONAL PROTECTIVE EQUIPMENT (PPE)</b></p> <p>Applicators and other handlers must wear: Waterproof gloves, eye protection, protective clothing (e.g. long sleeve shirt and shoes) and a dust/mist filtering respirator (MSHA/NIOSH approval prefix number TC-21C) or a NIOSH approved respirator with any R, P or HE filter when utilizing this product or solution. Refer to MSDA for specific information. (NOTE: California only)</p>

USER SAFETY RECOMMENDATIONS
<p><b>Users should:</b> 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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.</p>

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish and wildlife. This product, carelessly spilled or applied to cropland or growing plants, including trees and shrubs, may kill or seriously retard plant growth. Do not contaminate water by cleaning of equipment or disposal of wastes. 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.

**GENERAL INFORMATION**

LUM-BOR is a water-soluble inorganic borate salt with insecticidal and fungicidal properties effective against wood-destroying organisms, including the target pests listed below. This product can be used for remedial treatment of infested wood, for preventative treatment (before signs of infestations) for wood in existing structures, or for pre-treatment of wood during construction. This product is recommended for wood and cellulose materials, in accordance with the specific treatment methods described herein. This product is effective for all interior and exterior wood (and wood-foam composite structural components) that will be protected from excessive rain and not in direct contact with soil. Types of wood include, but are not limited to, all types of lumber, logs and plywood. This product is toxic to wood-destroying insects, but surface etching of treated wood by target organisms may occur.

**DIRECTIONS FOR USE**

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

**TARGET ORGANISMS**

This product is effective for treatment of wood (and wood-foam composite structural components) against decay fungi, including brown (i.e. *Poria*), white and wet rots and wood-boring insects such as, but not limited to the following Termites, Beetles and Carpenter ants:

- Subterranean Termites
- Reticulitermes, Heterotermes, Coptotermes (Formosan)*
- Drywood Termites
- Kaloterms, incisitermes*
- Dampwood Termites
- Zootermopsis*
- Carpenter Ants
- Camponotus*
- Powder-Post Beetles
- Lyctidae*
- "False" Powder-Post Beetles
- Bostrichidae*
- Furniture and Deathwatch Beetles
- Anobiidae*
- Old House Borers, Longhorn Beetles
- Cerambycidae*
- Ambrosia Beetles
- Scolytidae*



Manufactured By:  
**Drexel Chemical Company**  
 P.O. BOX 13327, MEMPHIS, TN 38113-0327  
**SINCE 1972**

**PREPARATION OF TREATMENT SOLUTION**

- **10% Aqueous Solution:** To prepare solution, water should be added to the tank to about 80% of the final volume of solution required. While agitating, add 1 pound of this product gradually for each gallon of treating solution required. The remaining water is then added and the solution is agitated until the product is dissolved.
- **15% Aqueous Solution:** Prepare solution as above, but gradually add 1.5 pounds of this product for each gallon of treating solution that is required. NOTE: This concentrated solution should be used immediately and should not be stored. Equipment should be rinsed and cleaned after use.
- **15% Foam:** Prepare 15% aqueous solution as listed above and add surfactant/foaming agent. Typically 1 to 2 ounces of foaming agent added to the 15% aqueous solution will produce a dry foam with the desired expansion ratios of approximately 20 to 1 (approximately 20 gallons of foam per 1 gallon of aqueous solution). This foam should be of a consistency that adheres to wood surfaces so that runoff is minimized. Since each foam machine can produce different foams, refer to the equipment manufacturer manuals and the surfactant's label for specific instructions.

**APPLICATION**

This product may be used as a solution, powder or foam. Two applications of 10% solution or one application of 15% solution can typically be applied to wood surfaces by brush or spray. Application of the solution may also be made by drilling and then injecting under pressure into sound wood or the galleries of infested wood. As a foam, this product may be applied directly to wood surfaces or injected into insect galleries or wall voids. Please refer to current use bulletin for specifics.

**REMEDIAL AND PREVENTATIVE TREATMENT**

**Solutions**—For remedial control of organisms attacking wood or for protection of wood against future infestations, 2 applications of 10% aqueous solution are normally required. Alternatively, apply 1 application of the 15% aqueous solution. Apply solutions of this product by brush or spray until wood surface is thoroughly wet, at a rate of approximately 5 gallons per 1,000 square feet of wood surface area. Application may also be made by drilling and then injecting the solution under pressure into sound wood or until runoff is observed from entry/exit holes of infested wood.

**Powder**—Alternatively, apply this product to wood members by drill and injection into galleries or dust generously on wood surfaces. This product can also be injected into wall voids such as between studs, block voids, box sill, eaves, attics, soffits, etc. Apply powder at a rate of approximately 0.5 ounce (12 to 14 grams) per square foot.

**Foam**—Apply foam so that all accessible wood surfaces are covered with foam. Where possible, place foam between wood joints or abutting wood surfaces. In wall voids, inject enough foam to contact wood surfaces of studs in the wall or the target area desired. Foam can be injected into galleries until runoff is observed from kick holes or entry/exit holes.

**PRE-TREATMENT OF WOOD**

Spray, foam or powder/dust applications of this product may also be made to wood during construction. Apply solution to all accessible surfaces of bare wood at a rate of approximately 5 gallons per 1,000 square feet of wood surface area. Application should be performed after framing and roofing are in place and before insulation and dry wall are installed. Avoid spraying electrical components. Protect treated wood from excessive rain. End-cuts of wood may also be treated by the application methods listed above or by a 1 to 5 minute dipping in this product's solution.

**FOR DIP-DIFFUSION, PRESSURE, AND WOOD TREATMENT USE**

**DIP DIFFUSION TREATMENT**

This method of treatment can result in complete penetration throughout the whole cross-sectional area of the treated lumber.

**Preparation of Solution:**

1. Add water to the tank to about 80% of the required solution.
2. Raise the temperature to the desired level and gradually add the calculated amount of this product with agitation.
3. Add the remaining water. Agitate the solution for an additional 10 minutes to ensure complete dissolution of this product.
4. Maintain the temperature of the solution during treatment.

**Note:** Upon cooling, some borate may crystallize out of the solution, but these will redissolve when solution is heated for the next treatment season. In very cold weather, some heating or insulation should be provided to prevent solidification at the bottom of the tank. The tank should be covered when not in use to prevent evaporation and contamination of the water.

**SUGGESTED CONDITIONS AND STRENGTH OF SOLUTION**

Lumber Diffusion Thickness Complete in		Pounds of Solution of This Product For 100 Gallons Solution	Temperature		Duration (Weeks)
Inches (in)	Centimeter (cm)		°F	°C	
Up to 1	Up to 2.5	140	105	40	2 to 4
1 to 1.75	2.5 to 4	180	120	50	4 to 6
1.75 to 2.5	4 to 6.5	250	130	55	4 to 6
2.5 to 3*	6.5 to 7.5	280	135	57	6 to 8

\*Lumber over 3 inches (7.5 cm) in thickness or over 5 inches (12.5 cm) in width should be dipped twice 24 to 72 hours apart.

**Application Method**

Dip freshly cut lumber in a tank containing hot aqueous solution of this product for 2 to 5 minutes. After dipping, stack and store the newly treated wood under a tarpaulin or shed roof to slow the drying process and prevent wash-off by rainfall, thus, improving penetration. Diffusion of the wood preservative into the wood interior will start immediately and will require several weeks to thoroughly penetrate the lumber depending on the species and wood thickness.

**PRESSURE TREATMENT**

This treatment must rigidly adhere to the current specifications of this product and/or those of the American Wood Preserver's Association (AWPA)

**WOOD TREATMENT**

**Wood Treatment During Construction:** Apply 10 to 25% solution to runoff on all accessible interior and exterior wood surfaces as a minimum treatment to the bottom 24 inches up from foundation or ground at the rate of approximately 5 gallons per 1000 sq. ft. of wood surface area. Apply after framing and roofing are in place, before insulation and dry wall installed. Treatment may also be made on the whole house.

**Treatment of Crawl Spaces and Basements:**

Apply 10 to 25% solution to runoff on all exposed and/or accessible wood. Where one wood side is exposed, treat twice. Allow to dry between treatments.

**Treatment to Wood-Foam Composite Structural Components:**

Apply 10% solution on all sides to runoff.

**Note:** One quart or 32 ounce container loose packed is equal to 1 pound.

**GENERAL INSECT CONTROL**

This product may also be used as a crack and crevice and void treatment for general insect control such as Ants, Crickets, Earwigs, Roaches and Silverfish. This product may not be used for Flea control. The 15% aqueous solution may be used as a crack and crevice treatment only.

Dust this product into wall voids and hiding places such as cracks and crevices, moist areas, openings around pipes and sinks, under refrigerators, behind baseboards, coffee makers, meter boxes and manholes. No powder should be visible in living areas after application. Any powder visible after application must be brushed into cracks and crevices or removed. Apply only in areas inaccessible to children and pets. Avoid contamination of feed and foodstuffs. Do not use in serving areas when food is exposed.

Application of this powder or 15% aqueous solution is limited to crack and crevice treatment only in food areas of food handling establishments. Apply this powder or 15% aqueous solution between different elements of construction, between equipment and floors, openings leading to voids and hollow spaces in walls, equipment legs and bases where insects hide. Care should be taken to avoid depositing the product into exposed surfaces or introducing the material into the air. Avoid contamination of food or food processing surfaces.

**APPLICATIONS OF THIS PRODUCT IN THE FOOD AREAS OF FOOD-HANDLING ESTABLISHMENTS, OTHER THAN AS A CRACK AND CREVICE TREATMENT, ARE NOT PERMITTED.**

Current Use Bulletins should be followed for all treatment methods to ensure adequate chemical loadings in wood.

**STORAGE AND DISPOSAL**

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

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

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

**WARRANTY—CONDITIONS OF SALE**

OUR RECOMMENDATIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable laws, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable laws, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.