

PACBOR (BORATE)

Pacific Wood Preserving of Bakersfield, Inc.
5601 District Blvd. Bakersfield, CA 93313

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT and COMPANY IDENTIFICATION

Product Name: Borate Treated Wood CAS Registry Number: N/A
Chemical Formula: N/A (Refer to Section 2 for Component I.D.)
Chemical Name/Synonyms: Borate Treated Wood
Chemical Family: Inorganic Borates
Manufacturer: Pacific Wood Preserving of Bakersfield, Inc.
Address: 5601 District Blvd. Bakersfield, CA 93313
Emergency Phone Number: CHEMTREC 1-800-424-9300 Date of Issue: August 1, 1994
General Information: 561-833-0429

2. COMPOSITION, INFORMATION ON INGREDIENTS

Borate treated wood products are those which contain > 99% "wood" and < 1% borate (disodium octaborate tetrahydrate). Borates are EPA registered pesticides. Wood/wood dust and disodium octaborate tetrahydrate (CAS No. 12280-03-4) are considered hazardous under the OSHA-Hazard Communication Standard. (Refer to Section 6 for occupational exposure limit information.)

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

The primary health hazard posed by this product is thought to be due to inhaling wood dust. The presence of the borate wood preservative in treated wood or wood dust is not expected to affect the toxicity characteristics of wood dust. Wood dust is flammable and depending on moisture content and more importantly, particle size (diameter), wood dust may explode in the presence of an ignition source.

POTENTIAL ECOLOGICAL EFFECTS

The only potential ecological hazard associated with borate treated wood dust relates to the borate preservative which has the potential to leach out of wood under conditions of exposure to water over a prolonged period of time. Borate compounds may be harmful to boron-sensitive plants.

POTENTIAL HEALTH EFFECTS

Inhalation and dermal (skin) are the primary routes of exposure for wood dust in occupational and other settings.

INHALATION: Wood dust may cause unpleasant deposit/obstruction in the nasal passages, resulting in dryness of the nose, dry cough, sneezing, and headaches.
EYE CONTACT: Wood dust may cause mechanical irritation.
CONTACT WITH SKIN: Wood dust(s) of certain species can elicit allergic contact dermatitis in sensitized individuals, as well as mechanical irritation resulting in erythema and hives.
INGESTION: Not applicable. Under normal use, wood/wood dust is not intended for ingestion.
CHRONIC HEALTH HAZARD: Wood dust(s), depending on the species, may cause allergic contact dermatitis with prolonged exposure to elevated dust levels.

MEDICAL CONDITIONS THAT MAY BE AGGRAVATED BY EXPOSURE: Wood dust may aggravate preexisting conditions or allergies.

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4. FIRST AID MEASURES

INHALATION: Seek medical assistance if persistent irritation, severe coughing or breathing difficulty occurs.

EYE CONTACT: Flush with plenty of water to remove wood dust particles. Seek medical attention if irritation persists.

SKIN CONTACT: Seek medical attention should rash, irritation or dermatitis develop.

5. FIREFIGHTING MEASURES

GENERAL HAZARD: Wood dust is flammable, combustible and may explode in the presence of an ignition source. The presence of borate treated wood preservative (known fire-retardant chemical) in treated wood dust may reduce the flammability hazards to some extent.

FLAMMABLE LIMITS: An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the LEL for wood dust.

6. ACCIDENTAL RELEASE MEASURES

Borate treated wood is not a listed substance under the Resource Conservation and Recovery Act (RCRA) or Comprehensive Environmental Response, Compensation and Liability (CERCLA) regulations.

7. HANDLING AND STORAGE

No special handling precautions are required. Keep in a cool dry place away from open flame.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS

Chemical/Common Name (CAS #)	COMPOSITION	EXPOSURE LIMITS OSHA/ACGIH
Wood (CAS # not applicable) (soft wood or hardwood total dust)	99%	OSHA PEL-TWA = 5 mg/m ³ OSHA PEL-STEL = 10 mg/m ³ ACGIH TLV-TWA = 5 mg/m ³ ACGIH TLV-STEL = 10 mg/m ³
Disodium Octaborate Tetrahydrate CAS # 12280-03-4 Listed/regulated as "Particulate Not Otherwise Regulated" or "Nuisance Dust".	1%	OSHA PEL-TWA = 15 GMM ³ (Total Dust) OSHA PEL-TWA = 5 GM/M ³ (Respirable Dust) ACGIH TLV-TWA = 10 MGM ³

TERM DEFINITIONS

PEL	Permissible Exposure Limits	TWA	Time Weighted Average (8 hours)
TLV	Threshold Limit Value	STEL	Short Term Exposure Limit (15 minutes)
OSHA	Occupational Safety and Health Administration	ACGIH	American Conference of Governmental Industrial Hygienists

PERSONAL PROTECTION

RESPIRATORY PROTECTION: A NIOSH/MSHA approved respirator is recommended when allowable exposure limits may be exceeded.

PROTECTIVE GLOVES/EYE PROTECTION: Not required for normal industrial exposures, but may be warranted if environment is exceedingly dusty.

WORK/HYGIENE PRACTICES: Follow good hygienic and housekeeping practices. Clean-up areas where wood dust settles to avoid excessive accumulation of this combustible material. Minimize practices that generate air borne dust.

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Borate treated wood (including wood dust and wood chips) has the same general appearance and physical properties as untreated wood. Wood dust consists of finely divided wood particles generated from sawing, sanding, routing, or chipping solid dimensional lumber or other wood products. Wood chips are similar to wood dust, but coarser.		
ODOR:	Treated and/or untreated wood product may have a slight scented odor.		
VAPOR PRESSURE:	Negligible at 20 degrees C	BOILING POINT:	Not Applicable
MELTING POINT:	Not Applicable	SOLUBILITY IN WATER:	< 0.1%
SPECIFIC GRAVITY:	0.40 - 0.60	% VOLATILE AT 20 DEGREES C (70 DEGREES F):	0.0

10. STABILITY AND REACTIVITY

GENERAL:	Borate treated wood is a stable product.
INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:	Avoid contact with oxidizing agents and drying oils. Avoid open flame. Borate treated wood dust may ignite at temperatures in excess of 400 degrees F.
HAZARDOUS DECOMPOSITION OR BY-PRODUCT:	Thermal decomposition products include carbon monoxide, carbon dioxide, aliphatic aldehydes, rosin acids, and polycyclic aromatic hydrocarbons.

11. TOXICOLOGICAL INFORMATION

No specific toxicological data is available on the borate treated wood itself. However, considerable information is available regarding the toxicity of its components, untreated wood and disodium octaborate tetrahydrate (CAS No. 12280-03-4). The presence of borate wood preservative in the treated wood or wood dust is not expected to affect its inherent toxicity characteristics. Therefore, borate treated wood or wood dust is not expected to affect its inherent toxicity characteristics. Therefore, borate treated wood or wood dust should be considered to be toxicologically equivalent to untreated wood and wood dust. Wood dust has been alleged to cause nasal/paranasal sinus cancer (certain European hardwood: oak and birch). For a detailed discussion of the toxicological effects of the wood preservative component, consult the MSDS for the borate preservative.

12. ECOLOGICAL INFORMATION

No specific information is available regarding the ecological effects of borate treated wood or dust. Conditions involving prolonged exposure of borate treated wood or wood dust to water should always be avoided. The wood preservative borate is an inorganic sodium borate salt which contains the element "boron". Although boron is an essential micronutrient for healthy growth of plants, it can be harmful to boron-sensitive plants in higher quantities.

13. DISPOSAL CONSIDERATIONS

DISPOSAL GUIDANCE: Borate treated wood and its components are not listed hazardous wastes under any sections of the Resource Conservation and Recovery Act or regulations (40 CFR 261 et seq.). Refer to State and Local regulations for specific requirements.

14. TRANSPORTATION INFORMATION

DOT CLASSIFICATION: Borate treated wood is not regulated by DOT. It does not appear on any DOT "Hazardous Material" or "Hazardous Substance" lists.

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15. REGULATORY INFORMATION

- OSHA/Cal OSHA: This MSDS document meets the requirements of both OSHA (29 CFR 1910.1200) and Cal OSHA (Title 8 CCR 5194(g)) hazard communication standards. Refer to Section 8 for regulatory exposure limits.
- RCRA: Borate treated wood and its components are not listed as hazardous wastes under any sections of the Resource Conservation and Recovery Act or regulations (40 CFR 261 et seq.).
- CARCINOGEN CLASSIFICATION: Borate treated wood and its components have not been listed or characterized by OSHA, IARC, or NTP.

16. OTHER INFORMATION

PRODUCT LABEL TEXT HAZARD INFORMATION:

TREATED WOOD DUST CAUTION!

Sawing, sanding or machining wood products can produce wood dust that can cause flammable or explosive hazard.

Wood dust may cause lung, upper respiratory tract, eye and skin irritation. Some wood species may cause dermatitis and/or respiratory allergic effects.

- * Avoid dust contact with ignition sources.
- * Sweep or vacuum dust for recovery or disposal.
- * Avoid prolonged or repeated breathing of wood dust in the air.
- * Avoid dust contact with eyes and skin.
- * Refer to borate pesticide MSDS for additional information.

FIRST AID: In case of contact, flush eyes or skin with water. If irritation persists, call a physician.

CONTACT INFORMATION: For additional information, please contact the manufacturer.

INFORMATION CONTAINED IN THIS MSDS REFERS ONLY TO THE SPECIFIC MATERIAL DESIGNED AND DOES NOT RELATE TO ANY PROCESS OR TO USE WITH OTHER MATERIALS. THIS INFORMATION IS FURNISHED FREE OF CHARGE AND IS BASED ON DATA BELIEVED TO BE RELIABLE AS OF THE DATE HEREOF. IT IS INTENDED FOR THE USE BY THE PERSONS POSSESSING TECHNICAL KNOWLEDGE AT THEIR OWN DISCRETION AND RISK. SINCE ACTUAL USE IS BEYOND OUR CONTROL, NO GUARANTEE, EXPRESSED OR IMPLIED, AND NO LIABILITY IS ASSUMED BY PACIFIC WOOD PRESERVING OF BAKERSFIELD, INC. IN CONJUNCTION WITH THE USE OF THIS INFORMATION. NOTHING HEREIN IS TO BE CONSTRUED AS RECOMMENDATION TO INFRINGE ON ANY PATENTS.