



# MATERIAL SAFETY DATA SHEET

U.S. DEPARTMENT OF LABOR  
OSHA HAZARD COMMUNICATION  
STANDARD OMB NO/1218-0072

## SECTION I - COMPANY AND PRODUCT IDENTIFICATION

Company: WoodSmart Solutions, Inc.  
4357 Cowing Rd.  
Lakewood, NY 14750  
(716) 763-3630

PRODUCT TRADE NAME: PERFECT BARRIER  
PRODUCT DESCRIPTION: Part-B Liquid

## SECTION II - HAZARDOUS INGREDIENTS/ SARA III, CERCLA, TSCA INFORMATION

The contents of chemical name and hazardous components are a Trade Secret as allowed by 29 CFR 1910.1200-48. Federal Register 53280 (SARA, Section 313, of Title III of 40 CFR 372).

No toxic chemical(s) subject to the reporting requirements of Section 311/312 of Title III and of 40 CFR 372 are present.

No toxic chemical(s) subject to the reporting requirements of 40 CFR 302.4 for CERCLA 102 are present.

No components of this mixture require export notification under Section 12(b) of the TSCA regulation.

HMIS RATING:  
HEALTH – 2  
FLAMMABILITY – 1  
REACTIVITY – 0

## SECTION III - HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW: A white colored liquid with a mild odor. It has a flash point of 200°F, and is miscible in water.

POTENTIAL ACUTE HEALTH EFFECTS:

EYES: Contact may cause eye irritation.

SKIN: Contact may cause skin irritation.

INGESTION: May cause vomiting, diarrhea, and depressed respiratory function.

INHALATION: Harmful if inhaled. Avoid misting or splashing.

POTENTIAL CHRONIC HEALTH EFFECTS: None known.

## SECTION IV - FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with water for at least 15 minutes. Get medical attention if irritation persists.

SKIN CONTACT: Wash thoroughly with soap and water. Get medical attention if irritation develops or persists.

INGESTION: If swallowed, DO NOT induce vomiting, unless directed to do so by medical personnel. Contact a physician or poison control center. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. Get medical attention if symptoms persist. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.

NOTE TO PHYSICIAN: Treatment should be directed at the control of symptoms and the clinical manifestations.

## SECTION V - FIRE FIGHTING MEASURES

FLASH POINT: 200°F

EXTINGUISHING MEDIA: CO2, Dry Chemical, Foam, Water Fog

FIREFIGHTERS PROTECTION: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water spray to cool exposed containers, but only if there is no risk of the runoff contaminating adjacent area.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

## SECTION VI - ACCIDENTAL RELEASE/CLEAN UP MEASURES

Stop leak if you can do so without risk of injury. Keep spill out of sewer and open bodies of water. Avoid runoff into storm sewers and ditches that lead to waterways. For small spills: dike and contain with inert material (sand, earth, etc.) and transfer liquid to containers for recovery or disposal. For large spills: dike far ahead of the spill. Absorb remaining liquid with absorbent material. (See Section 8 for information on Exposure Controls and Personal Protective Equipment). Isolate hazard area and deny entry to unauthorized personnel. Stay upwind, keep out of low areas, and ventilate closed spaces before entering.

## SECTION VII - HANDLING AND STORAGE

HANDLING: Keep out of reach of children. Avoid skin and eye contact. Avoid breathing vapors. Use with adequate ventilation. Keep contents and freshly treated articles away from flame, food, and living plants. Do not contaminate water by cleaning equipment or disposing of waste.

STORAGE: Store at 40°F - 90°F, out of direct sunlight. Keep containers tightly closed and upright when not in use. Protect against physical damage. Avoid breathing vapors and aerosols. Use only with adequate ventilation. Do not eat, drink or smoke in areas of use or storage. Assure that proper personal protective measures are taken when opening or entering confined storage vessels. Store away from caustics and oxidizers. Keep containers from excessive heat or freezing.

## SECTION VIII - EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide sufficient mechanical ventilation (local exhaust or general room dilution) to maintain exposure levels below PEL or TLV. Vapors are heavier than air and will collect in low areas. Check all low areas (basements, sumps, etc.) for vapor before entering.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

EYES: Chemical splash goggles, safety glasses with side shields, or full-face masks are recommended.

SKIN: Chemical resistant gloves (rubber, nitrile, etc.), long sleeved shirts and long pants are recommended to avoid skin contact.

RESPIRATORY: None normally required under anticipated use conditions. A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister should be used in circumstances where airborne concentrations are expected to exceed exposure limits.

PROTECTIVE CLOTHING: Impervious apron and rubber boots to prevent skin contact.

GENERAL HYGIENE PRACTICES: Remove contaminated clothing and wash before reusing. Do not eat, drink, or smoke while handling to avoid accidental ingestion of this material.

#### SECTION IX - PHYSICAL DATA

APPEARANCE/ODOR:	White liquid, mild odor.
PHYSICAL STATE:	Liquid
pH:	7 – 8
BOILING STATE:	210°F - 220°F
EVAPORATION RATE:	Slower than butyl acetate.
DENSITY:	Heavier than air.
VAPOR PRESSURE:	24 mm Hg @ 680 Fvapor
ODOR THRESHOLD:	N.D. Viscosity
SOLUBILITY IN WATER:	Soluble
SPECIFIC GRAVITY (water =1):	1.0047

#### SECTION X - STABILITY AND REACTIVITY

STABILITY: Stable, non-reactive.

HAZARDOUS POLYMERIZATION: Will not occur under normal circumstances

HAZARDOUS DECOMPOSITION PRODUCTS: May decompose under fire conditions emitting gases and vapors, which may be toxic and irritating to the respiratory system.

CONDITIONS TO AVOID: Excessive heat.

IMCOMPATIBILITY: Strong oxidizers and caustics.

#### SECTION XI - TOXICOLOGICAL INFORMATION

CARCINOGENICITY: This material is NOT considered a carcinogen by IARC or NTP and is not regulated as a carcinogen by OSHA. (Also see Section 15 for related information)

#### SECTION XII - ECOLOGICAL INFORMATION

CHEMICAL FATE AND EFFECTS: No data available. Do not discharge effluent containing this product into lakes, streams ponds, estuaries or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage authority.

#### SECTION XIII - DISPOSAL CONSIDERATION

This material is NOT considered hazardous waste under Federal Hazardous Waste Regulations (40CFR 261). However, state and local requirements for waste disposal may be more restrictive or otherwise differ from federal regulations.

Chemical additions, processing or otherwise altering this material may render the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Consult all applicable federal, state, and local regulations regarding the proper disposal of this material.

#### SECTION XIV - TRANSPORTATION INFORMATION

This product is considered non-hazardous and not regulated by D.O.T.

#### SECTION XV - DISCLAIMER

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to WoodSmart, Inc. from its suppliers, and because WoodSmart, Inc. has no control over the conditions of handling and use, WoodSmart, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and WoodSmart, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of WoodSmart, Inc. products to comply with applicable federal, state, and local laws and regulations.



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## SECTION I – COMPANY AND PRODUCT IDENTIFICATION

Company: WoodSmart Solutions, Inc.  
4357 Cowing Rd.  
Lakewood, NY 14750  
(716) 763-3630

**Product name:** Perfect Barrier DOT Wood Preservative / Part A

Product use: Insecticide and fungicide  
Chemical formula: Na<sub>2</sub>B<sub>8</sub>O<sub>13</sub> · 4H<sub>2</sub>O  
Chemical name/synonyms: Disodium octaborate tetrahydrate  
Chemical family: Inorganic borates  
CAS registry number: 12280-03-4  
EPA registration number: 64405-8-82005  
(Refer to Section IS for TSCA/DSL Chemical inventory listing)

## SECTION II – HAZARD IDENTIFICATION AND PERSONAL PROTECTIVE EQUIPMENT INFORMATION

**EMERGENCY OVERVIEW:** Perfect Barrier is a white, odorless, powdered substance that is not flammable, combustible, or explosive and has low acute oral and dermal toxicity.

**POTENTIAL ECOLOGICAL EFFECTS:** Large amounts of Perfect Barrier can be harmful to plants and other species. Therefore, releases to the environment should be minimized.

**POTENTIAL HEALTH EFFECTS:** Routes of exposure: Inhalation is the most significant route of exposure in occupational and other settings. Dermal exposure is not usually a concern because Perfect Barrier is poorly absorbed through intact skin.

**INHALATION:** Occasional mild irritation effects to nose and throat may occur from inhalation of Perfect Barrier dust at levels greater than 10 mg/m<sup>3</sup>.

**EYE CONTACT:** Perfect Barrier is non-irritating to eyes in normal use.

**SKIN CONTACT:** Perfect Barrier does not cause irritation to intact skin. **INGESTION:** Products containing Perfect Barrier are not intended for ingestion. Perfect Barrier has a low acute toxicity. Small amounts (e.g., a teaspoonful) swallowed accidentally are not likely to cause effects; swallowing amounts larger than that may cause gastrointestinal symptoms.

**CANCER:** Perfect Barrier is not a known carcinogen.

**SIGNS AND SYMPTOMS OF EXPOSURE:** Symptoms of accidental over-exposure to Perfect Barrier might include nausea, vomiting, and diarrhea, with delayed effects of skin redness and peeling.

**PERSONAL PROTECTION:** Eye protection, protective clothing, and waterproof gloves may be necessary under certain high exposure conditions. Otherwise, refer to label for actual regulatory personal protection requirements.

**OCCUPATIONAL EXPOSURE LIMITS:** Disodium octaborate tetrahydrate (Perfect Barrier) is considered to be a nuisance dust by OSHA, Cal OSHA, and ACGIH. The OSHA/PEL is 15mg/m<sup>3</sup> total dust and

5mg/m<sup>3</sup> respirable dust. The Cal OSHA/PEL and ACGIH/TLV are 10 mg/m<sup>3</sup>. Use local exhaust or engineering controls to prevent exceeding exposure limits if possible.

## SECTION III – FIRST AID MEASURES

**Inhalation:** If symptoms such as nose or throat irritation are observed, remove person to fresh air.

**Eye Contact:** Use eye wash fountain or fresh water to cleanse eye. If irritation persists for more than 30 minutes, seek medical attention.

**Skin Contact:** No treatment necessary because non-irritating.

**Ingestion:** Swallowing small quantities (one teaspoon) will cause no harm to healthy adults. If larger amounts are swallowed, give two glasses of water to drink and seek medical attention.

## SECTION IV – ACCIDENTAL RELEASE MEASURES

**General:** Perfect Barrier is a water-soluble white powder that may, at high concentrations, cause damage to trees or vegetation by root absorption.

**Land spill:** Vacuum, shovel or sweep up Perfect Barrier and place in container for disposal in accordance with applicable local regulations. Avoid contamination of water bodies during cleanup and disposal.  
**Spillage into water:** Where possible, remove any intact containers from the water. Advise local water authority that none of the affected water should be used for irrigation or for the abstraction of potable water until natural dilution returns the boron value to its normal environmental background level.

Perfect Barrier is a non-hazardous waste when spilled or disposed of; as defined in the Resource Conservation and Recovery Act (RCRA) regulations (40 CFR 261 ).

## SECTION V – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White, odorless, powder
Bulk density:	320 to 480 kg/m <sup>3</sup>
Vapor pressure:	Negligible @ 200C
Solubility in water:	9.7% @ 200C; 34.3% @ 500C
Melting point:	8150C
pH @ 20°C:	8.3 (3.0% solution) 7.6 (10.0% solution)

## SECTION VI – FIRE FIGHTING MEASURES AND HANDLING INSTRUCTIONS

### Fire Fighting Measures

**General Hazard:** None, because Perfect Barrier is not flammable, combustible or explosive. The product is itself a flame retardant.  
**Extinguishing Media:** Any extinguishing media may be used on nearby fires.  
**Flammability Classification (29CFR1910.1200):** Non-flammable solid.

**General:** Perfect Barrier is a stable product.  
**Hazardous decomposition:** None.

### Handling Instructions

**General:** No special handling precautions are required, but dry indoor storage is recommended. Good housekeeping procedures should be

followed to minimize dust generation and accumulation.  
Storage Conditions: Ambient air temperatures and a low moisture environment.

**INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:**  
Reaction with strong reducing agents, such as metal hydrides or alkali metals, will generate hydrogen gas, which could create explosive hazard.

#### **SECTION VII – TOXICOLOGICAL INFORMATION**

**Acute Toxicity**  
INGESTION: Low acute oral toxicity; LD50 in rats is 2,550 mg/kg of body weight.

SKIN/DERMAL: Low, acute dermal toxicity; LD50 in rabbits is greater than 2,000 mg/kg of body weight. Perfect Barrier is poorly absorbed through intact skin.

INHALATION: Low acute inhalation toxicity; LD50 in rats is greater than 2.0 mg/L (or g/m<sup>3</sup>).

SKIN IRRITATION: Non-irritant.

EYE IRRITATION: Draize test in rabbits produced mild eye irritation effects. Years of occupational exposure to Perfect Barrier indicates no adverse effects on human eye. Therefore Perfect Barrier is not considered to be a human eye irritant in normal industrial use.

SENSITIZATION: Perfect Barrier is not a skin sensitizer.

#### **SECTION VIII – ECOLOGICAL INFORMATION**

**Ecotoxicity Data**  
General: Boron (B) is the element in disodium octaborate tetrahydrate (Perfect Barrier) 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.  
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 EC10 = 24 mg B/L

Invertebrate Toxicity: Daphnids, *Daphnia magna* straus  
24-hr EC50=242 mg B/L

Test substance: sodium tetraborate

Fish Toxicity:

Seawater:

Dab, *Limanda limanda*

96-hr LC50 74 MG B/LL

Freshwater:

Rainbow trout, *S. gairdneri* (embryo-larval stage)

24-day LC50 = 88 mg B/L

32-day LC50) = 54 mg B/L

Goldfish, *Carassius auratus* (embryo-larval stage)

7-day LC50 = 65 mg B/L

3-day LC50 = 71 mg B/L

#### **SECTION IX – DISPOSAL CONSIDERATIONS**

Disposal Guidance: Consult state and local authorities for disposal guidelines.

RCRA (40 CFR 261): Perfect Barrier is not listed under any sections of the Federal Resource Conservation and Recovery Act (RCRA).

#### **SECTION X – 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.

FIFRA: Perfect Barrier is registered with the EPA (EPA Reg. No. 64405-8-82005), in accordance with Section 3 of FIFRA, as a pesti-

cide product. U.S. EPA TSCA Inventory 12008-41  
RCRA: Disodium octaborate tetrahydrate is not listed as a hazardous waste under any sections of the Resource Conservation and Recovery Act (RCRA) or regulations (40 CFR 261 et seq).

California Proposition 65: Disodium octaborate tetrahydrate (Perfect Barrier) is not listed on the Proposition 65 list of carcinogens or reproductive toxicants.

Superfund: CERCLA/SARA. Disodium octaborate tetrahydrate is not listed.

Safe Drinking Water Act (SDWA): Disodium octaborate tetrahydrate is not regulated under the SDWA, 42 USC 300g-1, 40 CFR 141 et seq.

Consult state and local regulations for possible water quality advisories regarding boron compounds.

Clean Water Act (CWA) (Federal Water Pollution Control Act):  
33 USC 1251 et seq.

- Disodium octaborate tetrahydrate (Perfect Barrier) is not itself a discharge covered by any water quality criteria of Section 304 of the CWA, 33 USC 1314.
- It is not on the Section 307 List of Priority Pollutants, 33 USC 1317, 40 CFR 129.
- It is not on the Section 311 List of Hazardous Substances, 33 USC 1321, 40 CFR 116.

Transportation Information: DOT hazardous classification. Disodium Octaborate Tetrahydrate (Perfect Barrier) is not regulated by the U.S. Department of Transportation.

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