

Safety Data Sheet

Material Name: Borate Treated Wood

SDS ID: STE-001

Section 1 - IDENTIFICATION

Material Name: Borate Treated Wood

Trade Names/Synonyms

Rail ties; Cross ties; switch ties

Recommended Use

Railroad ties

Restrictions on Use

None Known.

Manufacturer Information

Stella-Jones Corporation
Two Gateway Center
603 Stanwix Street, Suite 1000
Pittsburgh, PA 15222
Phone: 412-325-0202

McFarland Cascade Holdings, Inc.
1640 East Marc
Tacoma, Washington 98421
Phone: 253-572-3033

CHEMTREC®: 800-424-9300 (Intl. 703-527-3887)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with 29 CFR 1910.1200

- Combustible dust
- Skin Corrosion / Irritation, Category 2
- Eye Damage / Irritation, Category 2A
- Sensitization - Respiratory, Category 1
- Sensitization - Skin, Category 1
- Carcinogenicity, Category 1A
- Toxic to Reproduction, Category 2

GHS LABEL ELEMENTS

Symbol(s)



Signal Word

DANGER

Hazard Statement(s)

- May form combustible dust concentrations in air.
- Causes skin irritation.
- Causes serious eye irritation.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- May cause an allergic skin reaction.
- May cause cancer.
- May damage fertility or the unborn child.

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Precautionary Statement(s)

Prevention

Wash thoroughly after handling. Wear protective gloves/clothing and eye/face protection. Avoid breathing dust. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Response

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs, seek medical advice/attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms call a POISON CENTER or doctor/physician. IF exposed or concerned: Get medical advice/attention.

Storage

Store locked up.

Disposal

Dispose in accordance with all applicable regulations.

Hazard(s) Not Otherwise Classified

No additional information is available.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component	Percent
Not Available	Borate treated wood	100
Not Available	Oak and various hardwoods	90-98
12280-03-4	Disodium octaborate, tetrahydrate	1.25-7.5

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Wood dusts-hard wood, Wood dust, all soft and hard woods, Wood dusts (all other wood dusts), Wood dusts, birch, mahogany, teak, walnut, Borate compounds, inorganic.

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Skin

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. DO NOT rub until skin is free of sawdust and preservative material. If skin irritation or rash occurs, seek medical advice/attention. Wash contaminated clothing before reuse.

Eyes

Flush eyes with plenty of water for at least 15 minutes. DO NOT rub eyes. If eye irritation persists, get medical advice/attention.

Ingestion

If a large amount is swallowed, get medical attention.

Most Important Symptoms/Effects

Acute

Skin irritation, eye irritation, respiratory tract and skin sensitization

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Delayed

Respiratory tract and skin sensitization, cancer, reproductive effects

Indication of Immediate Medical Attention and Special Treatment

Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Use carbon dioxide, regular dry chemical, regular foam or water.

Large fires: Use water spray, fog or regular foam.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Specific Hazards Arising from the Chemical

Combustible dust. Dust/air mixtures may ignite or explode. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Hazardous Combustion Products

Combustion: aliphatic aldehydes, oxides of carbon, polycyclic aromatic hydrocarbons (PAHs), and/or resin acids.

Fire Fighting Measures

Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Use extinguishing agents appropriate for surrounding fire.

Special Protective Equipment and Precautions for Firefighters

Wear full protective firefighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Collect debris and used material in appropriate container for disposal. Avoid generating dust. Clean up residue with a high-efficiency particulate filter vacuum. Avoid release to the environment.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Follow good hygienic and housekeeping practices. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling. Wear personal protective clothing and equipment. Clean-up areas where wood dust settles to avoid excessive accumulation of this combustible material. Minimize practices that generate airborne dust. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Conditions for Safe Storage, including any Incompatibilities

Store in accordance with all current regulations and standards. Store borate-treated wood off of the ground, protected from weather. While at the job site, cover with plastic tarps, allowing for adequate air circulation. Keep in a cool, dry place away from open flame. Treated wood is intended for exterior/outdoor uses only.

Incompatibilities Avoid drying oils and oxidizing materials.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Oak and various hardwoods (Not Available)

ACGIH: 1 mg/m3 TWA (inhalable fraction, related to Wood dusts (all other wood dusts))

NIOSH: 1 mg/m3 TWA (related to Wood dust, all soft and hard woods)

OSHA (vacated): 5 mg/m3 TWA (related to Wood dust, all soft and hard woods)
10 mg/m3 STEL (related to Wood dust, all soft and hard woods)

Mexico: 1 mg/m3 TWA LMPE-PPT (related to Wood dusts-hard wood)

Disodium octaborate, tetrahydrate (12280-03-4)

ACGIH: 2 mg/m3 TWA (inhalable fraction, related to Borate compounds, inorganic)

6 mg/m3 STEL (inhalable fraction, related to Borate compounds, inorganic)

Appropriate Engineering Controls

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eyes/Face Protection

Wear safety glasses with side shields. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear appropriate chemical resistant clothing.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Respiratory Protection

If the applicable TLVs and/or PELs are exceeded, use canister or cartridge respirators, which are MSHA/NIOSH-approved, with high-efficiency particulate filters.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid	Appearance:	Rail ties
Physical Form:	Solid wood	Odor:	Slightly scented.
Odor Threshold:	Not available	pH:	Not applicable
Melting Point:	Not applicable	Boiling Point:	Not applicable
Flash Point:	Not applicable	Decomposition:	Not applicable
Evaporation Rate:	Not applicable	Vapor Pressure:	Negligible
Vapor Density (air = 1):	Not applicable	Density:	Not applicable
Specific Gravity (water = 1):	Not available	Water Solubility:	Not applicable
Coeff. Water/Oil Dist:	Not available	Viscosity:	Not applicable
VOC:	Not applicable		

Other Property Information

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.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

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Chemical Stability

Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions

Will not polymerize.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

Incompatible Materials

Avoid drying oils and oxidizing materials.

Hazardous Decomposition

Combustion: aliphatic aldehydes, oxides of carbon, polycyclic aromatic hydrocarbons (PAHs), and/or resin acids.

* * *Section 11 - TOXICOLOGICAL INFORMATION* * *

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Disodium octaborate, tetrahydrate (12280-03-4)

Oral LD50 Rat 2500 mg/kg

>2000 mg/kg dermal LD50 (rabbit)

>2 mg/L inhalation LC50 (rat)

Information on Likely Routes of Exposure

Inhalation

Wood dust may cause irritation and allergic reactions. Repeated or prolonged exposure may cause difficulty breathing, headache, visual disturbances, and kidney damage.

Ingestion

Wood dust may cause nausea, vomiting, drowsiness, loss of appetite, difficulty breathing, and irregular heartbeat.

Skin Contact

Wood dust may cause allergic reactions, skin disorders, difficulty breathing, irregular heartbeat, headache, visual disturbances, and kidney damage.

Eye Contact

Wood dust may cause eye irritation.

Immediate Effects

Respiratory tract irritation, skin irritation, eye irritation, allergic reactions

Delayed Effects

Allergic reactions, cancer, reproductive effects

Medical Conditions Aggravated by Exposure

Medical conditions include respiratory disorders, skin disorders, and/or allergies.

Irritation/Corrosivity Data

Respiratory tract irritation, skin irritation, eye irritation

Respiratory Sensitization

Component data indicate the substance is sensitizing.

Dermal Sensitization

Component data indicate the substance is sensitizing.

Carcinogenicity

Known Human Carcinogen

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Component Carcinogenicity

Oak and various hardwoods (Not Available)

ACGIH: A1 - Confirmed Human Carcinogen (related to Wood dusts-hard wood)

IARC: Monograph 100C [2012]; Monograph 62 [1995] (Group 1 (carcinogenic to humans), related to Wood dust, all soft and hard woods)

NTP: Known Human Carcinogen (related to Wood dust, all soft and hard woods)

Disodium octaborate, tetrahydrate (12280-03-4)

ACGIH: A4 - Not Classifiable as a Human Carcinogen (related to Borate compounds, inorganic)

Mutagenic Data

No information available for the product.

Reproductive Effects Data

Available data characterizes components of this product as reproductive hazards.

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration Hazard

No information is available.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

No data available for this product.

Component Analysis - Aquatic Toxicity

No LOEL ecotoxicity data are available for this product's components.

Persistence and Degradability

Disodium octaborate tetrahydrate decomposes in the environment to natural borate.

Bioaccumulative Potential

No data available.

Mobility

Disodium octaborate tetrahydrate is soluble in water and is leachable through normal soil.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Borate treated wood is not a listed substance under the Resource Conservation and Recovery Act (RCRA).
Dispose of in an approved landfill according to Federal, State, Provincial, and local regulations.

Waste Numbers

There are no applicable U.S. EPA listed waste codes (40 CFR 261 Subpart D) for this product.

Section 14 - TRANSPORT INFORMATION

US DOT Information

Not regulated.

TDG Information

Not regulated.

Section 15 - REGULATORY INFORMATION

Component Analysis

U.S. Federal Regulations

None of this product's components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

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FIFRA Information

Component Analysis

Disodium octaborate, tetrahydrate (12280-03-4)

Section number 180.1121

SARA 311/312 Hazardous Categories

Acute Health: Yes **Chronic Health:** Yes **Fire:** No **Pressure:** No **Reactive:** No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Oak and various hardwoods (*related to: Wood dust, all soft and hard woods) (**related to: Wood dusts-hard wood)	Not Available	No	No	Yes ¹	Yes ¹	Yes ²
Disodium octaborate, tetrahydrate (*related to: Borate compounds, inorganic)	12280-03-4	No	No	No	Yes ¹	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Canada

This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS CLASSIFICATION: Not a Controlled Product under Canada's Workplace Hazardous Material Information System.

Component Analysis - Inventory

This product is exempt.

Component Analysis - Inventory

Component	CAS	US	CA
Disodium octaborate, tetrahydrate	12280-03-4	No	No

*****Section 16 - OTHER INFORMATION*****

Summary of Changes

Revision 2.0000, 26 May 2015: New SDS format.

NFPA Ratings: Health: 2 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

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Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CPR - Controlled Products Regulations; DSL - Domestic Substances List; EPA - Environmental Protection Agency; F - Fahrenheit; IARC - International Agency for Research on Cancer; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; Kow - Octanol/water partition coefficient; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; OSHA - Occupational Safety and Health Administration; RCRA - Resource Conservation and Recovery Act; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Other Information

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. Read the Safety Data Sheet before handling product.

End of Sheet STE-001