

Safety Data Sheet

Material Name: Borate-Creosote Treated Wood

SDS ID: STE-002

Section 1 - IDENTIFICATION

Material Name: Borate-Creosote Treated Wood

Trade Names/Synonyms

Rail ties; Cross ties; Switch ties

Recommended Use

Railroad ties

Restrictions on Use

Borate-Creosote Treated Wood has been treated with a FIFRA Restricted Use Pesticide, and must be used only in applications consistent with the American Wood Protection Association (AWPA) Use Category System as set forth in the most current edition and the product label.

Manufacturer Information

Stella-Jones Corporation
Park West One, Suite 500
1000 Cliff Mine Road
Pittsburgh, PA 15275
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

Specific Target Organ Toxicity - Single Exposure, Category 3 (respiratory tract irritation)

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.

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Suspected of damaging fertility or the unborn child.
May cause respiratory irritation.

Precautionary Statement(s)

Prevention

Wear protective gloves/clothing and eye/face protection. In case of inadequate ventilation wear respiratory protection. Do not breathe dust or vapors. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. 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 EXPOSED OR CONCERNED: 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 ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash 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.

Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) Not Otherwise Classified

No additional information is available.

* * *Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS* * *

CAS	Component	Percent
Not Available	Borate-creosote treated wood	100
Not Available	Oak and various hardwoods	87-88
8001-58-9	Creosote	<12
12280-03-4	Disodium octaborate, tetrahydrate	<1

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; Creosotes; Borate compounds.

* * *Section 4 - FIRST AID MEASURES* * *

Description of Necessary Measures

Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

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. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eyes

Flush eyes with plenty of water for at least 15 minutes. DO NOT rub eyes. Then get immediate medical attention.

Ingestion

If a large amount is swallowed, get medical attention.

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Most Important Symptoms/Effects

Acute

Respiratory tract irritation, skin irritation, eye irritation, respiratory tract and skin sensitization

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.

Unsuitable Extinguishing Media

None known.

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, oxides of nitrogen, 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.

* * *Section 7 - HANDLING AND STORAGE* * *

Precautions for Safe Handling

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 airborne dust. Avoid repeated or prolonged breathing of treated wood dust. Use methods to minimize dust. When possible, conduct dust-generating activities outdoors to avoid indoor accumulations of airborne dust from treated wood. Avoid prolonged or repeated skin contact with this material. When handling treated wood, wear washable or disposable coveralls or long-sleeved shirt and long pants, chemical resistant gloves, and socks plus industrial grade safety boots with chemical resistant soles. To reduce sun sensitivity, a sun-blocking lotion (SPF15+) can also be applied. Wash thoroughly after skin contact, before eating, drinking, chewing gum, using tobacco products or using restrooms. Remove and wash contaminated clothing before reuse.

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Conditions for Safe Storage, including any Incompatibilities

Store in accordance with all current regulations and standards. Store borate-creosote 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 acids and oxidizing materials.

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. Wear washable or disposable coveralls or long-sleeved shirt and long pants. Wear socks plus industrial grade safety boots with chemical resistant soles.

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:	Brown to black rail ties
Color:	Brown to black.	Physical Form:	Solid wood.
Odor:	Tar odor.	Odor Threshold:	Not available
pH:	Not applicable	Melting Point:	Not applicable
Boiling Point:	Not applicable	Flash Point:	Not applicable
Decomposition:	Not applicable	Vapor Pressure:	Not applicable
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		

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Other Property Information

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

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 acids and oxidizing materials.

Hazardous Decomposition

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

Section 11 - TOXICOLOGICAL INFORMATION

Acute and Chronic Toxicity

May cause irritation, difficulty breathing, drowsiness, dizziness, lung damage, and allergic reactions.

Component Analysis - LD50/LC50

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

Creosote (8001-58-9)

Oral LD50 Rat 725 mg/kg

Disodium octaborate, tetrahydrate (12280-03-4)

Oral LD50 Rat 2500 mg/kg

Information on Likely Routes of Exposure

Inhalation

Ingestion

May cause nausea, vomiting, headache, drowsiness, and dizziness.

Skin Contact

May cause irritation. May cause sensitization.

Eye Contact

May cause irritation and tearing.

Immediate Effects

Respiratory tract irritation, skin irritation, eye irritation, allergic reactions, central nervous system effects

Delayed Effects

Blood damage, kidney damage, liver damage, lung damage, respiratory system 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.

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Carcinogenicity

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)

Creosote (8001-58-9)

IARC: Monograph 92 [2010]; Supplement 7 [1987]; Monograph 35 [1985] (Group 2A (probably carcinogenic to humans))

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

Respiratory system

Specific Target Organ Toxicity - Repeated Exposure

Blood, kidneys, liver, lungs, respiratory system

Aspiration Hazard

Not expected to be an aspiration hazard.

* * *Section 12 - ECOLOGICAL INFORMATION* * *

Ecotoxicity

Toxic to aquatic organisms.

Component Analysis - Aquatic Toxicity

Creosote (8001-58-9)

Fish: 96 Hr LC50 Brachydanio rerio: 2.6 - 6.6 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 0.57 mg/L [static]

Invertebrate: 48 Hr EC50 Daphnia magna: 1.04 mg/L; 48 Hr EC50 Daphnia magna: 0.065 - 0.082 mg/L [Static]

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

* * *Section 13 - DISPOSAL CONSIDERATIONS* * *

Disposal Methods

Dispose of in an approved landfill according to Federal, State, Provincial, and local regulations. In most states, creosote-borate treated wood may be disposed of in a RCRA Subtitle D (solid waste) landfill.

Waste Numbers

Creosote (8001-58-9)

RCRA: waste number U051

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Section 14 - TRANSPORT INFORMATION

US DOT Information

Not regulated.

US DOT Reportable Quantities

Creosote (8001-58-9)

1 lbs RQ; 0.454 kg RQ

TDG Information

Not regulated.

Component Marine Pollutants (IMDG)

This material contains one or more of the following chemicals required by IMDG to be identified as marine pollutants.

Creosote (8001-58-9)

IMDG regulated marine pollutant (Listed in the index)

Section 15 - REGULATORY INFORMATION

Component Analysis

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified 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), and/or require an OSHA process safety plan.

Creosote (8001-58-9)

SARA 313: 0.1 % de minimis concentration

CERCLA: 1 lb final RQ; 0.454 kg final RQ

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 (1related to: Wood dust, all soft and hard woods) (2related to: Wood dusts-hard wood)	Not Available	No	No	Yes ¹	Yes ¹	Yes ²
Creosote	8001-58-9	Yes	Yes	Yes	Yes	Yes
Disodium octaborate, tetrahydrate (1related 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.

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Component Analysis - Inventory

Component	CAS	US	CA
Creosote	8001-58-9	Yes	DSL
Disodium octaborate, tetrahydrate	12280-03-4	No	No

* * *Section 16 - OTHER INFORMATION* * *

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

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

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 Material Safety Data Sheet before handling product.

SDS History

Revision 2.0000, 29 May 2015: Updated to OSHA GHS format.

End of Sheet STE-002