

Material Safety Data Sheet

Material Name: ACQ Preserve and Preserve Plus Pressure Treated Wood

ID: CSI-068

*** Section 1 - Chemical Product and Company Identification ***

Chemical Name: Pressure treated wood with Alkaline Copper and Quaternary Ammonium Compounds

Product Use: Lumber

Manufacturer Information

General Comments

NOTE: Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

*** Section 2 - Composition / Information on Ingredients ***

CAS #	Component	Percent
Not Available	Wood/Wood Dust	90-98.5
141-43-5	Monoethanolamine	0.8-5.5
Proprietary	Copper complex expressed as Copper oxides	0.3-2.1
10043-35-3	Boric acid	0.2-1.2
68391-01-5	Alkyl dimethyl benzyl ammonium chloride**	0.0-1.0
7173-51-5	Didecyl dimethyl ammonium chloride**	0.0-1.0
Proprietary	Dialkyl dimethyl ammonium carbonate/bicarbonate**	0.0-1.0

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Wood dust, all soft and hard woods, Wood dusts-soft woods, Wood dusts-hard wood, Copper compounds, n.o.s., Copper.

Component Information/Information on Non-Hazardous Components

ACQ Preserve Pressure Treated Wood products are made up of wood treated with one of the ACQ family of EPA registered products.

**Note: This product contains either/or of the above Quaternary ammonium compounds depending which ACQ Wood Preservative is used.

This product is considered hazardous under the criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

*** Section 3 - Hazards Identification ***

Emergency Overview

WARNING ! Wood dust may form explosive mixture with air. Wood dusts may cause irritation to the eyes, skin and respiratory tract.

Potential Health Effects: Eyes

Wood dust may cause irritation to the eyes. Symptoms can include irritation, redness, scratching of the cornea, and tearing.

Potential Health Effects: Skin

Wood dust may cause irritation to the skin. Mechanical rubbing may increase skin irritation. Some wood species may cause dermatitis or allergic skin reactions in sensitized individuals.

Potential Health Effects: Ingestion

Ingestion of wood or wood dust is unlikely. If ingestion does occur, slight gastrointestinal irritation may result. Certain species of wood and their dusts may contain natural toxins which can have adverse effects in humans.

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Potential Health Effects: Inhalation

Wood dust is irritating to the nose, throat and lungs. Symptoms may include nasal dryness, deposits or obstructions in the nasal passages, coughing, sneezing, dryness and soreness of throat and sinuses, hoarseness, and wheezing. Prolonged or repeated inhalation of wood dusts may cause respiratory irritation, recurrent bronchitis and prolonged colds. Some species may cause allergic respiratory reactions with asthma-like symptoms in sensitized individuals. Prolonged exposure to wood dust by inhalation has been reported to be associated with nasal and paranasal cancer.

Medical Conditions Aggravated by Exposure

Pre-existing eye, respiratory system and skin conditions.

HMIS Ratings: Health: 1* Fire: 1 Physical Hazard: 0

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

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Immediately flush eyes with plenty of water for at least 15 minutes. Seek immediate medical attention.

First Aid: Skin

For skin contact, wash immediately with soap and water. Continue flushing skin with water for 15 minutes. If irritation persists, get medical attention. If wood splinters are injected under the skin, get medical attention immediately.

First Aid: Ingestion

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting.

First Aid: Inhalation

If dusts are inhaled, remove person to fresh air. If symptoms persist, get medical attention.

First Aid: Notes to Physician

Respiratory ailments and pre-existing skin conditions may be aggravated by exposure to wood dust.

*** Section 5 - Fire Fighting Measures ***

Flash Point: Not applicable

Upper Flammable Limit (UFL): Not available

Auto Ignition: Not available

Rate of Burning: Not available

General Fire Hazards

Wood is combustible and dusts may form explosive mixtures with air in the presence of an ignition source.

Hazardous Combustion Products

Combustion products may yield irritating and toxic fumes and gases including organic chloride, aldehydes, amines, hydrogen chloride, ammonia, copper compounds, oxygen, boric oxide, oxides of carbon and nitrogen.

Extinguishing Media

Use water to wet down wood and to reduce the likelihood of ignition or dispersion of dust into the air.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

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

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

*** Section 6 - Accidental Release Measures ***

Containment Procedures

No containment procedures are needed, as this product cannot spill or leak the preservative. Keep away from sparks and flame.

Clean-Up Procedures

Wear appropriate protective equipment and clothing during clean-up. Wet down accumulated dusts prior to sweeping or vacuuming in order to prevent explosion hazards. Sweep up or vacuum small pieces and dusts and place in appropriate container for disposal. Gather larger pieces by an appropriate method. Avoid the generation of airborne dusts during clean-up. Do not inhale dusts during cleanup.

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Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Wear appropriate personal protective equipment. Follow all Local, State, Federal and Provincial regulations for disposal.

*** Section 7 - Handling and Storage ***

Handling Procedures

Do not generate airborne dusts in the presence of an ignition source when sawing, cutting or grinding wood. Wash hands after handling and before eating. Avoid contact of wood dusts with skin and eyes. Do not breathe wood dusts. Do not eat, drink or smoke when handling this material or in areas where dusts of this product are present.

Storage Procedures

Maintain good housekeeping procedures, such as sweeping regularly to avoid accumulation of dusts. Store product in a dry area away from excessive heat, sparks and open flame.

*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines

A: General Product Information

Follow all applicable exposure limits.

B: Component Exposure Limits

Wood/Wood Dust (Not Available)

ACGIH:	5 mg/m ³ TWA (related to Wood dust (soft wood)) 10 mg/m ³ STEL (related to Wood dust (soft wood))
OSHA Vacated:	5 mg/m ³ TWA (related to Wood dust, all soft and hard woods, except western red cedar) 10 mg/m ³ STEL (related to Wood dust, all soft and hard woods, except western red cedar)
NIOSH:	1 mg/m ³ TWA (related to Wood dust)

Monoethanolamine (141-43-5)

ACGIH:	3 ppm TWA 6 ppm STEL
OSHA Vacated:	3 ppm TWA; 8 mg/m ³ TWA 6 ppm STEL; 15 mg/m ³ STEL
OSHA Final:	3 ppm TWA; 6 mg/m ³ TWA
NIOSH:	3 ppm TWA; 8 mg/m ³ TWA 6 ppm STEL; 15 mg/m ³ STEL

Copper complex expressed as Copper oxides (Proprietary)

ACGIH:	0.2 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dusts and mists, as Cu) (related to Copper)
OSHA Vacated:	0.1 mg/m ³ TWA (fume, dusts, mists as Cu) (related to Copper)
OSHA Final:	0.1 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dusts and mists) (related to Copper)
NIOSH:	1 mg/m ³ TWA (as Cu except Copper fume) (related to Copper compounds)

Engineering Controls

Use exhaust ventilation when cutting, grinding or sanding in enclosed areas and if it is anticipated the exposure limits for wood dust may be exceeded during working with this product.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses with side shields when handling, cutting, sanding or grinding this material. Use a face shield during processes that may generate excessive dusts and splinters.

Personal Protective Equipment: Skin

Wear puncture resistant work gloves, such as leather.

Personal Protective Equipment: Respiratory

Not normally needed. Use a dust mask for particulate concentrations exceeding the Occupational Exposure Limit.

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Personal Protective Equipment: General

Launder workclothes frequently. Eye wash fountain is recommended.

*** Section 9 - Physical & Chemical Properties ***

Appearance:	May vary	Odor:	Ammonia/Wood Odor
Physical State:	Solid wood	pH:	Not applicable
Vapor Pressure:	Not available	Vapor Density:	Not applicable
Boiling Point:	Not applicable	Melting Point:	Not applicable
Solubility (H2O):	Insoluble	Specific Gravity:	Not available

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Keep away from excessive heat, sparks and open flame. Keep away from incompatible materials.

Incompatibility

Strong acids, alkalies and oxidizing agents.

Hazardous Decomposition

Combustion products may yield irritating and toxic fumes and gases including organic chloride, aldehydes, amines, hydrogen chloride, ammonia, copper compounds, oxygen, boric oxide, oxides of carbon and nitrogen.

Hazardous Polymerization

Will not occur.

*** Section 11 - Toxicological Information ***

Acute and Chronic Toxicity

A: General Product Information

Wood dusts may be irritating to the eyes, skin and respiratory tract. Prolonged or repeated inhalation of wood dust may cause respiratory irritation, recurrent bronchitis and prolonged colds. Depending on the species of wood, recurrent exposure may cause allergic skin and respiratory reactions in some individuals.

Inhalation of high concentrations of Monoethanolamine have been reported to cause pulmonary, liver, kidney and skin damage in experimental animals. Monoethanolamine is corrosive to the eyes, skin, respiratory system and gastrointestinal tract, and may cause permanent damage to the eyes. Monoethanolamine may be absorbed through the skin in harmful amounts and may cause allergic skin reactions. Monoethanolamine exposures may cause damage to the nervous system, lungs, liver and kidneys.

The Copper complex expressed as copper oxide in this product contains copper salts which, upon ingestion of high oral doses, can cause gastrointestinal disturbances, anemia, and secondary liver and kidney damage.

Acute exposures to Boric Acid can cause gastrointestinal distress, liver or kidney damage, shock, convulsions, coma, and death. Boric Acid can be absorbed through the skin, lungs and gastrointestinal tract, and is a skin sensitizer.

Didecyldimethylammonium chloride (DDAC) is a quaternary ammonium compound shown to cause severe skin and eye irritation in animals. DDAC is corrosive to the gastrointestinal tract and is expected to cause caustic burns to the skin, eyes, throat and respiratory tract, especially upon exposure to concentrated solutions.

Alkyl dimethyl benzyl ammonium chloride (DBAC) is a quaternary ammonium compound which may produce corrosive damage to the eyes and gastrointestinal tract, and severe irritation to the skin and respiratory tract. Acute toxicity data from the supplier of the Alkyl dimethyl benzyl ammonium chloride in this product is as follows:
Oral LD50 (no species indicated): 735 mg/kg for males and females combined
Dermal LD50 (no species indicated): 3350 mg/kg for males and females combined

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B: Component Analysis - LD50/LC50

Monoethanolamine (141-43-5)

Oral LD50 Rat: 1720 mg/kg; Oral LD50 Mouse: 700 mg/kg; Dermal LD50 Rabbit: 1 mL/kg
30 ppm IDLH

Copper complex expressed as Copper oxides (Proprietary)

Oral LD50 Rat: 1350 mg/kg
100 mg/m³ IDLH (dust, mist and fume) (related to Copper)

Boric acid (10043-35-3)

Oral LD50 Rat: 2660 mg/kg; Oral LD50 Mouse: 3450 mg/kg

Didecyl dimethyl ammonium chloride** (7173-51-5)

Oral LD50 Rat: 84 mg/kg; Oral LD50 Mouse: 268 mg/kg

Carcinogenicity

A: General Product Information

ACQ Preserve pressure treated wood and its components are not listed as carcinogens by ACGIH, NIOSH, or IARC. Wood dust is classified as a human carcinogen or occupational carcinogen by ACGIH, NIOSH and IARC. This classification is based on an increased incidence of nasal and paranasal cancers in people exposed to wood dusts.

B: Component Carcinogenicity

Wood/Wood Dust (Not Available)

ACGIH: A1 - Confirmed Human Carcinogen (Beech and Oak) (related to Wood dust - hard wood)
NIOSH: potential occupational carcinogen (related to Wood dust)
NTP: Known Carcinogen (related to Wood dust) (Select Carcinogen)
IARC: Monograph 62, 1995 (related to Wood dust) (Group 1 (carcinogenic to humans))

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

The wood preservative fungicide and insecticide components of this product are, by design, toxic to wood deteriorating organisms. This product is not expected to leach harmful amounts of preservative into the environment. However, toxicity profiles for non-target organisms for the preservative components in this product are tabled below.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Didecyl Dimethyl Ammonium Chloride (7173-51-5)

Test & Species

Test & Species	Conditions
96 Hr LC50 rainbow trout (juvenile)	0.409 mg/L

Monoethanolamine (141-43-5)

Test & Species

Test & Species	Conditions
96 Hr LC50 goldfish	170.0 mg/L
96 Hr LC50 fathead minnow	2070 mg/L
30 min EC50 Photobacterium phosphoreum	13.7 mg/L

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Copper complex expressed as Copper oxides (Proprietary)

Test & Species

Test & Species	Concentration	Conditions
96 Hr LC50 fathead minnow	23 µg/L	
96 Hr LC50 rainbow trout	13.8 µg/L	
96 Hr LC50 bluegill	236 µg/L	related to Copper
72 Hr EC50 freshwater algae (Scenedesmus subspicatus)	120 µg/L	related to Copper
96 Hr LC50 water flea	10 µg/L	
96 Hr LC50 water flea	200 µg/L	related to Copper

Boric acid (10043-35-3)

Test & Species

Test & Species	Concentration	Conditions
48 Hr LC50 water flea	115.0 mg/L	Static

Environmental Fate

No information available.

*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions

A: General Product Information

You must test your waste using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Not regulated

Canada Transportation of Dangerous Goods Information

Shipping Name: Not regulated

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

This product is pressure treated with either of two FIFRA registered wood preservatives which fall under Environmental Protection Agency regulations.

ACQ 2102 is registered with the EPA under registration number 10465-39.

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Copper complex expressed as Copper oxides (Proprietary)

SARA 313: 1.0 % de minimis concentration (does not include copper phthalocyanine compounds substituted only with hydrogen and/or bromine or chlorine, Chemical Category N100) (related to Copper compounds)

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C: Federal Insecticide, Fungicide, and Rodenticide Act

This material contains the following chemicals present on either the Listing of Pesticide Chemicals (40 CFR 180) or Pesticides Classified for Restricted Use as listed by FIFRA :

Copper complex expressed as Copper oxides (Proprietary)

FIFRA Section number 180.136

Didecyl dimethyl ammonium chloride (7173-51-5)**

FIFRA Section number 180.940

SARA 311/312: Acute Health Yes Chronic Health Yes Fire Yes Pressure No Reactive No

State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

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

Component	CAS	CA	MA	MN	NJ	PA	RI
Wood/Wood Dust (¹related to Wood dust, all soft and hard woods) (²related to Wood dusts-soft woods)	Not Available	No	No	Yes¹	No	Yes²	Yes¹
Monoethanolamine	141-43-5	Yes	Yes	Yes	Yes	Yes	Yes
Copper complex expressed as Copper oxides (¹related to Copper compounds) (²related to Copper)	Proprietary	Yes¹	Yes²	Yes²	Yes²	Yes¹	Yes²

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Monoethanolamine	141-43-5	1 % (English Item 1096, French Item 1170)
Copper complex expressed as Copper oxides	Proprietary	1 % (English Item 428, French Item 985)
Boric acid	10043-35-3	1 % (English Item 204, French Item 67)

WHMIS Classification: D2A, D2B

Additional Regulatory Information

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List. All components are on the Canadian Domestic Substances or Non-Domestic Substances Inventory Lists. The component, Copper complex expressed as copper oxides, which is not listed on the Canadian Domestic Substances List is on the Canadian Non-Domestic Substances Inventory List.

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	NDSL	EINECS	AUST	MITI	PHIL	KOREA	ELINCS	CHINA
Monoethanolamine	141-43-5	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Copper complex expressed as Copper oxides	Proprietary	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Boric acid	10043-35-3	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Didecyl dimethyl ammonium chloride**	7173-51-5	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Alkyl dimethyl benzyl ammonium chloride**	68391-01-5	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes

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*** Section 16 - Other Information ***

Other Information

Disclaimer: Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists. AICS = Australian Inventory of Chemical Substances. CAS = Chemical Abstract Service. CERCLA = Comprehensive Environmental Response, Compensation and Liability Act. CFR = Code of Federal Regulations. CHEMTREC = Chemical Transportation Emergency Center. DSL = Canadian Domestic Substance List. EINECS = European Inventory of New and Existing Chemical Substances. ELINCS = European List of Notified Chemical Substances. EPA = Environmental Protection Agency. FIFRA = Federal Insecticide, Fungicide, and Rodenticide Act; HEPA = High Efficiency Particulate Air. HMIS = Hazardous Material Information System. IARC = International Agency for Research on Cancer. IDLH = Immediately Dangerous to Life and Health. MITI = Japanese Ministry of International Trade and Industry. NDSL = Canadian Non-Domestic Substance List. NFPA = National Fire Protection Association. NIOSH = National Institute of Occupational Safety and Health. NJTSR = New Jersey Trade Secret Registry. NTP = National Toxicology Program. OSHA = Occupational Safety and Health Administration. NA = Not available or Not Applicable. SARA = Superfund Amendments and Reauthorization Act. TDG = Transportation of Dangerous Goods. TLV = Threshold Limit Value. TSCA = Toxic Substances Control Act. WHMIS = Workplace Hazardous Materials Information System.

This is the end of MSDS # CSI-068