**Safety Data Sheet**

**ACQ Preserve and Preserve Plus Pressure Treated Wood**



**\* \* \* Section 1 - IDENTIFICATION\* \* \***

**Product Identifier:**

ACQ Preserve and Preserve Plus Pressure Treated Wood

**Trade Names**

ACQ Preserve and Preserve Plus Pressure Treated Wood

**Synonyms**

Pressure treated wood with Alkaline Copper and Quaternary Ammonium Compounds

**Recommended Use**

Lumber

**Restrictions on Use**

None known.

**Manufacturer/Importer/Supplier/Distributor Information**

Company Name: Manke Lumber Company Inc.

Address: 1717 Marine view Drive

Tacoma, WA 98422

Telephone SDS Request 253-572-6252

Email n/a

**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 - HAZARD(S) IDENTIFICATION\* \* \***

**Classification in accordance with 29 CFR 1910.1200.**

Acute Toxicity (Dermal), Category 4

Acute Toxicity (Oral), Category 4

Skin Corrosion / Irritation, Category 1

Eye Damage / Irritation, Category 1

Skin sensitizer, Category 1

Specific Target Organ Toxicity - Single Exposure, Category 1 (kidneys and liver)

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

Specific Target Organ Toxicity - Repeated Exposure, Category 2 (kidneys, liver, lungs, and nervous system)

Hazardous to the Aquatic Environment - Acute Hazard, Category 1

**GHS LABEL ELEMENTS**

Symbol(s)



**Signal Word**

DANGER

**Hazard Statement(s)**

Harmful in contact with skin

Harmful if swallowed

Causes severe skin burns and eye damage

May cause an allergic skin reaction

Causes damage to kidneys and liver.

May cause respiratory irritation

May cause damage to kidneys, liver, lungs, and nervous system through prolonged or repeated exposure.

Very toxic to aquatic life.

**Precautionary Statement(s) Prevention**

Do not breathe dust. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Avoid release to the environment.

**Response**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell..

**Storage**

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

**Disposal**

Dispose in accordance with all applicable regulations.

**Hazard(s) Not Otherwise Classified**

Combustible solid. Dust may form explosive mixtures with air.

**\* \* \* Section 3 - 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 |
| 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 |
| 10043-35-3 | Boric acid | <0.1 |

**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, Copper (Copper Compound).

**Additional Information**

\*\* This product contains one of the given quaternary ammonium compounds depending on the type of ACQ Wood Preservative used.

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

**Description of Necessary Measures**

**Inhalation**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

**Skin Contact**

If wood splinters are injected under the skin, get medical attention immediately. IF ON SKIN (or hair):

Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

**Eye Contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

**Ingestion**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

**Most Important Symptoms/Effects**

**Acute**

skin burns, eye burns, allergic skin reaction, kidney damage, liver damage, respiratory system damage

**Delayed**

kidney damage, liver damage, lung damage, nervous system damage

**Indication of Immediate Medical Attention and Special Treatment Needed, If Needed**

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

**\* \* \* Section 5 - FIRE-FIGHTING MEASURES\* \* \***

**Suitable Extinguishing Media**

Use regular dry chemical, carbon dioxide, water spray, or regular foam., Use water to wet down wood and to reduce the likelihood of ignition or dispersion of dust into the air.

Large fires: water spray or fog, alcohol-resistant foam

**Unsuitable Extinguishing Media**

Do not scatter spilled material with high-pressure water streams.

**Specific Hazards Arising from the Chemical**

Combustible solid. Dust may form explosive mixtures with air.

**Hazardous Decomposition Products**

**Combustion:** organic chlorides,aldehydes,amines,hydrogen chloride,ammonia,copper compounds,oxygen,boric acid,oxides of carbon,oxides of nitrogen

**Special Protective Equipment and Precautions for Firefighters**

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

full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

**Fire Fighting Measures**

Move container from fire area if it can be done without risk. Dike for later disposal. Cool containers with water spray until well after the fire is out. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Stay away from the ends of tanks. Keep unnecessary people away, isolate hazard area and deny entry. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

**\* \* \* 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**

Move containers away from spill to a safe area.

**Methods and Materials for Containment and Cleaning Up**

Do not touch or walk through spilled material. Wear appropriate protective equipment and clothing during clean­up. Wet down accumulated dusts prior to sweeping or vacuuming in order to prevent explosion hazards. Use clean non-sparking tools to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal. Move containers away from spill to a safe area. 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.

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

**Precautions for Safe Handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Use only outdoors or in a well-ventilated area. Wear respiratory protection. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Avoid working with freshly treated wood. 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. Contaminated clothing should be removed and laundered before reuse.

**Conditions for Safe Storage, including any Incompatibilities**

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

**Incompatibilities:** strong acids, alkalis, and strong oxidizing materials

**\* \* \* Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION\* \* \***

**Component Exposure Limits**

**Wood/Wood Dust (Not Available)**

**NIOSH:** 1 mg/m3 TWA (related to Wood dust, all soft and hard woods) **Mexico** 5 mg/m3 TWA LMPE-PPT (related to Wood dusts-soft woods)

10 mg/m3 STEL [LMPE-CT] (related to Wood dusts-soft woods) **Alberta:** A2 - Suspected Human Carcinogen (related to Wood dusts-soft woods) 5 mg/m3 TWA (total, related to Wood dust, all soft and hard woods) **Manitoba:** A1 Confirmed Human Carcinogen (related to Wood dusts-hardwood) **New Brunswick:** A1 - Confirmed Human Carcinogen (related to Wood dusts- hard wood) 10 mg/m3 STEL (related to Wood dusts-soft woods)

5 mg/m3 TWA (related to Wood dusts-soft woods)

**Nova Scotia:** A1 - Confirmed Human Carcinogen (related to Wood dusts-hard wood) **Nunavut:** 10 mg/m3 STEL (related to Wood dust, all soft and hard woods)

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

dusts-soft woods)

5 mg/m3 TWA (related to Wood dusts-soft woods)

**Quebec:** 5 mg/m3 TWAEV (except red cedar, containing no Asbestos and <1% Crystalline silica, total dust, related to Wood dust, all soft and hard woods)

**Saskatchewan:** Present (beech, birch, mahogany, oak, teak, walnut, related to Wood dust, all soft and hard woods)

including but not limited to California redwood, Eastern white cedar, pine, Western white cedar (related to Wood dusts-soft woods)

10 mg/m3 STEL (related to Wood dusts-soft woods)

5 mg/m3 TWA (related to Wood dusts-soft woods)

10 mg/m3 STEL (non-allergenic); 5 mg/m3 STEL (allergenic, including cedar,

mahogany, teak, related to Wood dust, all soft and hard woods)

5 mg/m3 TWA (non-allergenic); 2.5 mg/m3 TWA (allergenic, including cedar,

mahogany, teak, related to Wood dust, all soft and hard woods)

**Monoethanolamine (141-43-5)**

**ACGIH:** 3 ppm TWA

6 ppm STEL

**OSHA:** 3 ppm TWA; 6 mg/m3 TWA **NIOSH:** 3 ppm TWA; 8 mg/m3 TWA

6 ppm STEL; 15 mg/m3 STEL

**Mexico** 3 ppm TWA LMPE-PPT; 8 mg/m3 TWA LMPE-PPT

6 ppm STEL [LMPE-CT]; 15 mg/m3 STEL [LMPE-CT]

**Alberta:** 6 ppm STEL; 15 mg/m3 STEL

3 ppm TWA; 7.5 mg/m3 TWA

**British Columbia:** 6 ppm STEL

3 ppm TWA

**Manitoba:** 6 ppm STEL

3 ppm TWA

**New Brunswick:** 6 ppm STEL; 15 mg/m3 STEL

3 ppm TWA; 7.5 mg/m3 TWA

**Newfoundland and** 6 ppm STEL

**Labrador:** 3 ppm TWA

Nova Scotia: 6 ppm STEL

**3 ppm TWA**

**Nunavut**: 6 ppm STEL; 15 mg/m3 STEL

3 ppm TWA; 7.5 mg/m3 TWA

**Ontario:** 6 ppm STEL

3 ppm TWA

**Prince Edward Island:** 6 ppm STEL

3 ppm TWA

**Quebec:** 6 ppm STEV; 15 mg/m3 STEV

3 ppm TWAEV; 7.5 mg/m3 TWAEV

**Saskatchewan:** 6 ppm STEL

3 ppm TWA

6 ppm STEL; 12 mg/m3 STEL

3 ppm TWA; 6 mg/m3 TWA

**Copper complex expressed as Copper oxides (Proprietary)**

**ACGIH:** 1 mg/m3 TWA (as Cu, dust and mist, related to Copper compounds)

**OSHA:** 0.1 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist, related to Copper (Copper

Compound))

**NIOSH:** 1 mg/m3 TWA (as Cu, dust and mist, related to Copper compounds)

**Mexico** 0.2 mg/m3 TWA LMPE-PPT (as Cu, fume); 1 mg/m3 TWA LMPE-PPT (as Cu, dust and

mist, related to Copper (Copper Compound))

2 mg/m3 STEL [LMPE-CT] (as Cu, fume); 2 mg/m3 STEL [LMPE-CT] (as Cu, dust and

mist, related to Copper (Copper Compound))

**Alberta:** 0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist, related to Copper (Copper

Compound))

**British Columbia:** 1 mg/m3 TWA (dust and mist); 0.2 mg/m3 TWA (fume, related to Copper (Copper

Compound))

**Manitoba: 1 mg/m3 TWA (as Cu, dust and mist, related to Copper compounds)**

**New Brunswick:** 0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist, related to Copper (Copper

Compound))

**Newfoundland and** 1 mg/m3 TWA (as Cu, dust and mist, related to Copper compounds)

**Labrador:**

**Nova Scotia: 1 mg/m3 TWA (as Cu, dust and mist, related to Copper compounds)**

**Nunavut:** 0.6 mg/m3 STEL (fume); 2 mg/m3 STEL (dust and mist, related to Copper (Copper

Compound))

0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist, related to Copper (Copper

Compound))

**Ontario:** 0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist, related to Copper (Copper

Compound))

**Prince Edward Island:** 1 mg/m3 TWA (as Cu, dust and mist, related to Copper compounds)

**Quebec:** 0.2 mg/m3 TWAEV (fume); 1 mg/m3 TWAEV (dust and mist, related to Copper (Copper

Compound))

**Saskatchewan:** 0.6 mg/m3 STEL (fume); 3 mg/m3 STEL (dust and mist, related to Copper (Copper

Compound))

0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist, related to Copper (Copper

Compound))

0.2 mg/m3 STEL (fume); 2 mg/m3 STEL (dust and mist, related to Copper (Copper

Compound))

0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist, related to Copper (Copper

Compound))

**Boric acid (10043-35-3)**

**ACGIH: 2 mg/m3 TWA (inhalable fraction)**

**6 mg/m3 STEL (inhalable fraction)**

**British Columbia:** 6 mg/m3 STEL (inhalable)

2 mg/m3 TWA (inhalable)

**Manitoba:** A4 Not Classifiable as a Human Carcinogen

6 mg/m3 STEL (inhalable fraction) 2 mg/m3 TWA (inhalable fraction)

**Newfoundland and** 6 mg/m3 STEL (inhalable fraction) **Labrador:** 2 mg/m3 TWA (inhalable fraction)

**Nova Scotia:** A4 - Not Classifiable as a Human Carcinogen

6 mg/m3 STEL (inhalable fraction) 2 mg/m3 TWA (inhalable fraction) **Ontario:** 6 mg/m3 STEL (inhalable)

2 mg/m3 TWA (inhalable)

**Prince Edward Island:** 6 mg/m3 STEL (inhalable fraction)

2 mg/m3 TWA (inhalable fraction)

**Saskatchewan:** 6 mg/m3 STEL (inhalable fraction) 2 mg/m3 TWA (inhalable fraction)

**Appropriate 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. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process enclosure 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 when handling, cutting, sanding or grinding this material. Use a face shield during processes that may generate excessive dusts and splinters. Provide an emergency eye wash fountain in the immediate work area.

**Skin Protection**

Wear chemical resistant clothing to prevent skin contact.

**Glove Recommendations**

Wear puncture resistant work gloves, such as leather.

**Respiratory Protection**

Not normally needed.

Use a dust mask for particulate concentrations exceeding the Occupational Exposure Limit.

**\* \* \* Section 9 - PHYSICAL AND CHEMICAL PROPERTIES\* \* \***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Physical State:** | Solid | | **Appearance:** | Solid wood. |
| **Color:** | varies | | **Physical Form:** | Solid wood. |
| **Odor:** | ammonia / natural wood odor | | **Odor Threshold:** | Not available |
| **pH:** | Not available | | **Melting Point:** | Not available |
| **Boiling Point:** | Not available | | **Flash Point:** | Not available |
| **Decomposition Temperature:** | Not available | | **Evaporation Rate:** | Not available |
| **LEL:** | Not available | | **UEL:** | Not available |
| **Vapor Pressure:** | Not available | | **Henry's Law Constant:** | Not available |
| **Vapor Density (air = 1):** | Not available | | **Relative Density:** | Not available |
| **Specific Gravity (water = 1):** | Not available | **Water Solubility:** | | Insoluble |
| **Coeff. Water/Oil Dist:** | Not available | **KOC:** | | Not available |
| **Auto Ignition Temperature:** | Not available | **Viscosity:** | | Not available |

**\* \* \* Section 10 - STABILITY AND REACTIVITY\* \* \***

**Reactivity**

No reactivity hazard is expected.

**Chemical Stability**

This is a stable material.

**Possibility of Hazardous Reactions**

Hazardous polymerization will not occur.

**Conditions to Avoid**

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

**Incompatible Materials**

strong acids, alkalis, and strong oxidizing materials

**Hazardous Decomposition 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. **Hazardous Decomposition**

**Combustion:** organic chlorides,aldehydes,amines,hydrogen chloride,ammonia,copper compounds,oxygen,boric acid,oxides of carbon,oxides of nitrogen

**\* \* \* Section 11 - TOXICOLOGICAL INFORMATION\* \* \***

**Acute Toxicity**

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

**Component Analysis - LD50/LC50**

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

published:

**Monoethanolamine (141-43-5)**

Oral LD50 Rat 1720 mg/kg; Dermal LD50 Rabbit 1 mL/kg; Dermal LD50 Rabbit 1025 mg/kg

**Copper complex expressed as Copper oxides (Proprietary)**

Oral LD50 Rat 1350 mg/kg

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

Oral LD50 Rat 84 mg/kg

**Boric acid (10043-35-3)**

Oral LD50 Rat 2660 mg/kg; Inhalation LC50 Rat >0.16 mg/L 4 h; Dermal LD50 Rabbit >2000 mg/kg

**Information on Likely Routes of Exposure Inhalation**

May cause respiratory tract irritation.

**Ingestion**

Harmful if swallowed.

**Skin Contact**

Harmful in contact with skin.. Causes skin burns.. May cause an allergic skin reaction.

**Eye Contact**

Causes eye burns.

**Immediate Effects**

skin burns, eye burns, allergic skin reaction, kidney damage, liver damage, respiratory system damage

**Delayed Effects**

kidney damage, liver damage, lung damage, nervous system damage

**Medical Conditions Aggravated by Exposure**

Pre-existing eye, respiratory system and skin conditions.

**Irritation/Corrosivity Data**

respiratory tract irritation, skin burns, eye burns

**Respiratory Sensitization**

No data available.

**Dermal Sensitization**

May cause an allergic skin reaction.

**Germ Cell Mutagenicity**

No data available for the mixture.

**Carcinogencity**

**Component Carcinogenicity**

**Wood/Wood Dust (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)

**DFG:** Category 3B (could be carcinogenic for man, except beech and oak wood dust, related to Wood

dust, all soft and hard woods)

**OSHA:** Present (related to Wood dust, all soft and hard woods)

**Boric acid (10043-35-3)**

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

**Reproductive Toxicity**

No information available for the product.

**Specific Target Organ Toxicity - Single Exposure**

liver, nervous system, respiratory system

**Specific Target Organ Toxicity - Repeated Exposure**

kidneys, liver, lungs, nervous system

**Aspiration Hazard**

Not expected to be an aspiration hazard.

**\* \* \* Section 12 - ECOLOGICAL INFORMATION\* \* \***

**Ecotoxicity**

Very toxic to aquatic organisms.

This product is not expected to leach harmful amounts of preservative into the environment. However, the wood preservatives (ACQ) in this product contain fungicides and insecticides which when released into the environment, are expected to adversely effect or destroy contaminated plants. They may be harmful or fatal to wildlife.

**Ecotoxity- Aquatic Toxicity**

**Didecyl Dimethyl Ammonium Chloride (7173-51-5)**

Test & Species

96 Hr LC50 rainbow trout (juvenile) 0.409 mg/L

**Component Analysis - Aquatic Toxicity**

**Monoethanolamine (141-43-5)**

**Fish:** 96 Hr LC50 Pimephales promelas: 227 mg/L [flow-through]; 96 Hr LC50 Brachydanio

rerio: 3684 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 300-1000 mg/L [static]; 96

Hr LC50 Oncorhynchus mykiss: 114-196 mg/L [static]; 96 Hr LC50 Oncorhynchus

mykiss: >200 mg/L [flow-through]

**Algae:** 72 Hr EC50 Desmodesmus subspicatus: 15 mg/L

**Invertebrate:** 48 Hr EC50 Daphnia magna: 65 mg/L

**Copper complex expressed as Copper oxides (Proprietary)**

**Fish:** 96 Hr LC50 Pimephales promelas: 0.0068 - 0.0156 mg/L; 96 Hr LC50 Pimephales

promelas: <0.3 mg/L [static]; 96 Hr LC50 Pimephales promelas: 0.2 mg/L [flow‑

through]; 96 Hr LC50 Oncorhynchus mykiss: 0.052 mg/L [flow-through]; 96 Hr LC50

Lepomis macrochirus: 1.25 mg/L [static]; 96 Hr LC50 Cyprinus carpio: 0.3 mg/L [semi‑

static]; 96 Hr LC50 Cyprinus carpio: 0.8 mg/L [static]; 96 Hr LC50 Poecilia reticulata:

0.112 mg/L [flow-through] (related to Copper (Copper Compound))

**Algae:** 72 Hr EC50 Pseudokirchneriella subcapitata: 0.0426 - 0.0535 mg/L [static]; 96 Hr EC50

Pseudokirchneriella subcapitata: 0.031 - 0.054 mg/L [static] (related to Copper (Copper

Compound))

**Invertebrate:** 48 Hr EC50 Daphnia magna: 0.03 mg/L [Static] (related to Copper (Copper

Compound))

**Boric acid (10043-35-3)**

**Fish:** 72 Hr LC50 Carassius auratus: 1020 mg/L [flow-through]

**Invertebrate:** 48 Hr EC50 Daphnia magna: 115 - 153 mg/L

**Persistence and Degradability**

No information available for the product.

**Bioaccumulation Potential**

No information available for the product.

**Mobility in Soil**

No information available for the product.

**\* \* \* Section 13 - DISPOSAL CONSIDERATIONS\* \* \***

**Disposal Methods**

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

**Disposal of Contaminated Packaging**

**Component Waste Numbers**

The U.S. EPA has not published waste numbers for this product's components.

**\* \* \* Section 14 - TRANSPORT INFORMATION\* \* \***

**US DOT Information**

Not regulated.

**TDG Information**

Not regulated.

**\* \* \* Section 15 - REGULATORY INFORMATION\* \* \***

**U.S. Federal Regulations**

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

ACQ-C2 is registered with the EPA under registration number 83997-4.

**U.S. Federal Regulations**

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 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65),

CERCLA (40 CFR 302.4), and/or TSCA 12(b).

**Copper complex expressed as Copper oxides (Proprietary)**

**SARA 313:** 1.0 % de minimis concentration (This category does not include CAS numbers 147-14-8, 1328‑

53-6, or 14302-13-7, or copper phthalocyanine compounds that are substituted with only

hydrogen and/or chlorine and/or bromine., related to Copper compounds)

**Component Marine Pollutants**

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

|  |  |  |
| --- | --- | --- |
| Component | CAS |  |
| Copper complex expressed as Copper oxides | Proprietary | DOT regulated severe marine pollutant (powder, related to Copper (Copper Compound)) |

**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** |
| Wood/Wood Dust (1related to: Wood dust, all soft and hard woods) (2related to: Wood dusts-soft woods) | Not Available | No | No | Yes1 | Yes1 | Yes2 |
| Monoethanolamine | 141-43-5 | Yes | Yes | Yes | Yes | Yes |
| Copper complex expressed as Copper oxides (1related to: Copper compounds) (2related to: Copper (Copper Compound)) | Proprietary | Yes1 | Yes2 | Yes2 | Yes1 | Yes1 |

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.

**WHMIS Classification(s)**

D2A D2B E

**Symbol(s)**



**Canadian WHMIS Ingredient Disclosure List (IDL)**

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The

List is composed of chemicals which must be identified on MSDSs if they are included in products which fall under

WHMIS criteria specified in the Controlled Products Regulations and present above the threshold limits listed on

the IDL.

**Monoethanolamine (141-43-5)**

1 %

**Copper complex expressed as Copper oxides (Proprietary)**

1 %

**Component Analysis - Inventory**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Component** | **CAS** | **US** | **CA** | **EU** | **AU** | **PH** | **JP** | **KR** | **CN** | **NZ** |
| Monoethanolamine | 141-43-5 | Yes | DSL | EIN | Yes | Yes | Yes | Yes | Yes | Yes |
|  | 33113-08-5 | Yes | NSL | EIN | No | No | No | Yes | No | Yes |
|  | Proprietary | Yes | DSL | EIN | Yes | Yes | Yes | Yes | Yes | Yes |
|  | 7173-51-5 | Yes | DSL | EIN | Yes | Yes | Yes | Yes | Yes | Yes |
|  | 68391-01-5 | Yes | DSL | EIN | Yes | Yes | Yes | Yes | Yes | Yes |
| Boric acid | 10043-35-3 | Yes | DSL | EIN | Yes | Yes | Yes | Yes | Yes | Yes |

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

**Summary of Changes**

New MSDS: 5/30/2012

**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.

**Other Information**

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