



Since 1958 our company philosophy has remained unchanged:

We provide purchasers with quality products, a wide range of choices, and consistent, professional service.

Headquartered on the south Oregon coast, Conrad Forest Products served as a pioneer in pressure treatment. Our preservation experience goes back to 1958 when we began providing durability to common species of wood. Since then, we have undergone significant changes in our capabilities, technology, products, and services. Furthermore, we strive to produce environmentally beneficial building materials in an environmentally sound manner.

800-356-7146 | www.ConradFP.com



chemonite®
ACZA PRESSURE
TREATED WOOD





Strong History. Promising Future.

Chemonite® is the registered trade name for Ammoniacal Copper Zinc Arsenate (ACZA) and its predecessor, Ammoniacal Copper Arsenate (ACA), which have been used for treatment since 1935. Chemonite® was innovated for difficult-to-treat species of wood, which are used for a wide variety of above ground, ground contact, freshwater and saltwater applications.

Introduced in 1985, ACZA represented an improvement to the earlier formulation with respect to efficacy, leaching and appearance. Forty years of commercial production, long term field tests and laboratory fungal and termite tests have demonstrated the efficacy and performance of ACZA treated wood.

Recent approval by AWWPA for use in railroad crossties has resulted in considerable new testing and initiation of new field studies to monitor long term performance of Chemonite® treated wood. Solution corrosion, wood

corrosion, conductivity, spike holding and strength properties are shown to be comparable with wood treated with other preservatives. Fire retardant properties are improved by use of ACZA.

A Life Cycle Assessment (LCA) confirmed that ACZA-treated wood uses less energy and resources, has a lower environmental impact, decreases greenhouse gas levels, and offsets fossil fuel use, when compared to concrete, steel and fiber-reinforced composites. For more information see the reports at wolmanizedwood.com.

The performance of ACZA treated wood can be enhanced by the addition of borates to provide protection beyond the depth of the ACZA penetration. Secondary treatments such as ET® Brown can be used to improve the surface properties and climbability of ACZA utility poles.

Advantages

- Effective in penetration and protection of Douglas fir and refractory species
- Resistant to carpenter ants, woodpecker damage, and fire as well as protecting against termites and fungal decay
- Preservative listed in AWWPA standards
- Long history of successful use
- Enhancement can be added
- Non-volatile, low aromatic, and non-oily
- "Fixed" - limited leachability
- Approved for use in the most severe environments (marine applications)
- Ease of analysis for active ingredients
- Paintable surface
- Limited warranty for utility poles, railroad crossties, and railway bridge timbers (WolmanizedWood.com/warranty)
- Prediction of a half life span of 96 years for posts (lower ACZA requirement than poles) (per Forest Products Journal Vol. 65, No. 7/8 Lebow, et al. 2015)

Typical Applications

- Crossties
- Poles — utility and building
- Piling — foundation, land, freshwater, marine
- Timbers
- Posts

Recommended Hardware

See building code and manufacturer recommendations. Fasteners should be corrosion-resistant, such as: hot-dipped galvanized, copper, silicon bronze, stainless steel 304 and 316 or other metals having corrosion resistance equal to that of hot-dipped galvanized. Aluminum is subject to corrosion and should not be used in direct contact with Chemonite® treated wood.



Treated Wood for Marine Use

Wood is one of the most economical and versatile construction materials used in the marine environment, and Douglas Fir pressure-treated with Chemonite® ACZA continues to be preferred for use in a long list of marine applications, such as pilings, docks, boardwalks, and posts. Marine designers, contractors and specifiers favor treated wood because it is readily available, easily repairable, and extremely durable. Over the years, Conrad has had the privilege to supply many of the products used in marine projects all over the nation, whether it be salt water applications, fresh water rivers and lakes, or sensitive riparian environments. And for those few projects in which treated lumber and piling are not preferred, we also carry a line of structural composite lumber available in just about any size and shape.





The Chemonite® Pile

Salt and fresh water are tough on building materials, whether in full immersion or periodic splash and spray exposure. Common construction materials such as steel and concrete are susceptible to erosion and fractures, but Chemonite® ACZA treated wood resists these factors while providing a substantial economic and ecological benefit.

Chemonite® preserved wood piling and structural members have been used for many years in waterfront facilities due to the ability to withstand the rapid decay and deterioration found in marine environments.

Chemonite® wood is ideal for marine structures, in, out of, or near water. Chemonite® wood will last for decades, resisting severe weather conditions and the attack of marine borers. Chemonite® wood is leach resistant and does not affect the structural qualities of the wood.

Chemonite® preservative protects timbers and piling from decay, allowing the use of wood for piling structures, boardwalks, docks, launching ramps and service buildings in marine construction.

Learn more and see the SDS at conradpf.com

<https://www.conradpf.com/pdf/msds-chemonite-preserved-wood-information-acza.pdf>



Wolmanized® Heavy Duty™ CCA Plywood

Our Wolmanac® CCA wood preservative protects wood products in the most challenging environments and is ideal for use in some marine applications. CCA treated DF and SYP plywood will resist rot and decay when exposed directly and indirectly to saltwater and is an ideal choice for flooring in sailing vessels as well as for bulkhead walls on shorelines. CCA does not affect the adhesive properties of glue or the workability of the product. Hot dipped galvanized fasteners are recommended for use with CCA treated plywood products.

Learn more and see the SDS at conradpf.com

<https://www.conradpf.com/pdf/wolmanized-heavy-duty-wood-cca-sds.pdf>



Wolmanized® Outdoor® Wood

Wolmanized® Outdoor® Wood is ideal for freshwater applications such as docks and piers and can also be used in saltwater splash areas. It combines the natural beauty of real wood with long-lasting resistance to termite damage and fungal decay. Our Wolmanized® Outdoor® Wood is manufactured when Douglas fir is pressure treated with Wolman® E Copper azole preservative, rendering the wood undesirable as a food source for termites and fungi.

The preservative is forced into the wood under pressure, where it provides decades of protection. Copper is the primary ingredient, protecting against termites and most fungal decay. Protection against copper tolerant fungi is provided by the azole.

Learn more and see the SDS at conradpf.com

<https://www.conradpf.com/pdf/outdoor-wolmanized-ca-c-sds.pdf>

AWPA Retention Requirements for Douglas fir

Commodity	Type	Application	Use Category	ACZA (pcf)	CCA (pcf)	CA-C (pcf)
Pilings & Columns						
Structural Posts	Round	GC or Fresh Water	UC4B	0.60	N/A	0.31
	Sawn	GC or Fresh Water	UC4B	0.60	N/A	0.31
Foundation & Fresh Water Piling	Round	Fully Embedded GC	UC4C	1.00	N/A	N/A
Structural Timber (non-critical)	Sawn	GC or Fresh Water	UC4B	0.60	N/A	0.31
Structural Timber (critical)	Sawn	GC or Fresh Water	UC4C	0.60	N/A	0.31
Structural Timber (critical, 5" or thicker)	Sawn	GC	See note 1	0.80	N/A	N/A
Marine Piling	Round	Saltwater	UC5A ²	1.50	N/A	N/A
	Round	Saltwater	UC5B ³	2.50	N/A	N/A
Decking & Structural Members						
Lumber & Timbers (including decking & joists)	Sawn	AG	UC3B ⁴	0.25	N/A	0.06
	Sawn	GC or Fresh Water	UC4A	0.40	N/A	0.15
	Sawn	GC or Saltwater Splash	UC4B	0.60	N/A	0.31
	Sawn	Aqua/Mariculture	UC5A ²	1.90	N/A	N/A
	Sawn	Aqua/Mariculture	UC5B ³	2.50	N/A	N/A
Marine Timbers						
Rail Ties & Road Use	Sawn	Saltwater	UC5A ²	1.90	N/A	N/A
	Sawn	Saltwater	UC5B ³	2.50	N/A	N/A
Plywood						
Bulkhead Sheathing		GC or Fresh Water	UC4B	0.60	0.60	0.31
		Saltwater	UC5A	2.50	2.50	N/A
Marine/PWF		GC or Saltwater Splash	UC4B	0.60	0.60	0.31
Marine/Boat Building		Saltwater	UC5A-5B	2.50	2.50	N/A
Flooring for Vessels		GC or Fresh Water	UC4B	0.60	0.60	0.31

GC = Ground Contact

AG = Above Ground

¹Sawn timbers 5.0" and greater used as supporting members in building construction where replacement would be difficult and/or structural placement of these members require exceptional durability

²For treated materials in saltwater immersion north of San Francisco

³For treated materials in saltwater immersion south of San Francisco

⁴Limited to industrial/commercial installations

Field Treating

Wherever practical, wood should be manufactured to its final form prior to treatment. Treated wood products should not be dragged along the ground. All field cuts and drill holes should be field treated. Field treating (as well as applying sealers) should be done well away from the water if at all possible. If over-water treatment is necessary, steps should be taken (such as using tarps) to collect any surplus treatment for removal and disposal. Any damage to treated wood should be treated in accordance with the American Wood Protection Association (AWPA) Standard M4.

Per AWP Standard M4 acceptable preservatives for field treatment include copper naphthenate (minimum 2% copper metal), borates (minimum 1.5% B_2O_3 ; not permitted with water or ground contact), and oilborne oxine copper (minimum 0.675% oxine copper or 0.12% copper metal).

Removal and Disposal

Removal of old or abandoned treated wood structures from the water can disturb sediments, creating a greater potential concern than if left alone. Alternative strategies such as cutting them off at the sediment line or leaving them as fish habitat should be considered.

TREATED WOOD SHOULD NOT BE BURNED in open fires or in stoves, fireplaces, or residential boilers because toxic substances may be produced as part of the smoke and ashes. Treated wood from commercial or industrial use (e.g., construction sites) may be disposed of by complying with local landfill rules or burned in commercial or industrial incinerators or boilers when done in accordance with state and federal regulations.

Dispose of in accordance with local, state, and federal regulations. State run hazardous waste programs may be more stringent. Some state sites are listed below.

California : <https://dtsc.ca.gov/toxics-in-products/treated-wood-waste/>

Oregon : <https://www.oregon.gov/deq/hazards-and-cleanup/hw/pages/hw-rules.aspx>

Washington : <https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/dangerous-waste-guidance>

Best Management Practices (BMPs)

The Western Wood Preservers Institute (WWPI), in conjunction with industry representatives, users, and scientists, developed BMPs to help reduce leaching of preservative chemicals in treated wood prior to shipment. In the fixation process of ACZA, some preservative components bond to the wood while others form insoluble precipitates. Specification of BMPs results in wood with a very low percentage of leached preservative, and may also reduce shipping weight.

BMPs have been established for Chemonite® treated wood. Details are available on the WWPI website (www.wwpinstitute.org) or by contacting a supplier.

Conclusions and Summary Brief

Environmental Life Cycle Assessment of Ammoniacal Copper Zinc Arsenate-Treated Marine Piles with Comparisons to Reinforced Concrete, Galvanized Steel, and Plastic Marine Piles

Arxada commissioned AquAeTer, Inc., an independent consulting firm, to prepare a quantitative evaluation of the environmental impacts associated with the national production, use, and disposition of ammoniacal copper zinc arsenate (ACZA)-treated wood, concrete, galvanized steel, and plastic marine piles using life cycle assessment (LCA) methodologies and following ISO 14044 standards. The comparative results demonstrate:

- **Less Energy & Resource Use:** ACZA-treated wood marine piles require less total energy, less fossil fuel, and less water than concrete, galvanized steel, and plastic marine piles.
- **Lower Environmental Impacts:** ACZA-treated wood marine piles have lower environmental impacts than concrete, steel, and plastic marine piles in all six impact indicator categories assessed: anthropogenic greenhouse gas, total greenhouse gas, acid rain, ecotoxicity, and eutrophication-causing emissions.
- **Decreases Greenhouse Gas Levels:** Use of ACZA-treated wood marine piles lowers greenhouse gas levels in the atmosphere whereas concrete, galvanized steel, and plastic marine piles increase greenhouse gas levels in the atmosphere.
- **Offsets Fossil Fuel Use:** Reuse of ACZA-treated wood marine piles for energy recovery in permitted facilities with appropriate emission controls will further reduce greenhouse gas levels in the atmosphere by offsetting the use of fossil fuel energy.

Impact indicator values were normalized to better support comparisons between products and to understand the quantitative significance of indicators. Product normalization sets the cradle-to-grave life cycle value of maximum impact to 1.0, and all other values are a fraction of 1.0. The normalized results are provided in Figure 1.

Scope

The scope of this study includes:

- A life cycle inventory of ACZA-treated wood, reinforced concrete, galvanized steel, and plastic marine piles, modified from a life cycle inventory of CCA-treated marine piles done for the Treated Wood Council.
- Calculation and comparison of life cycle impact assessment indicators: anthropogenic greenhouse gas, net greenhouse gas, acid rain, smog, ecotoxicity, and waterborne eutrophication impacts potentially resulting from life cycle air emissions.
- Calculation of energy, fossil fuel, and water use.

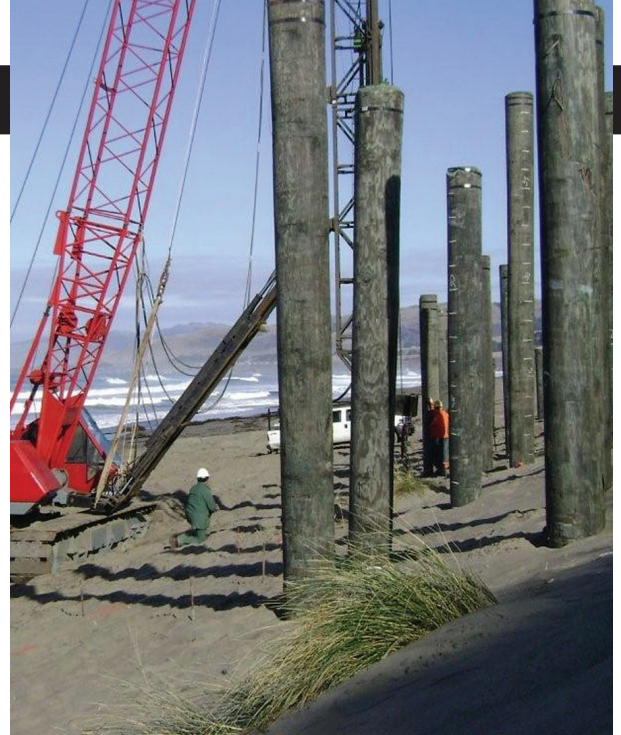
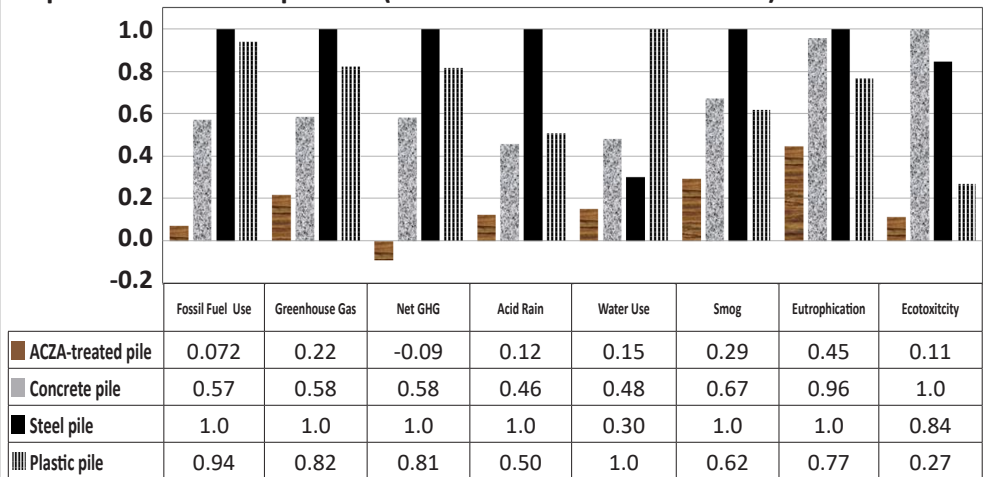


Figure 1.
Impact indicator comparison (normalized to maximum = 1.0)





Impact Category	Units	ACZA-treated pile	Concrete pile	Galvanized steel pile	Plastic pile
Energy Use					
Energy input from technosphere	MMBTU	1.3	4.6	7.4	3.8
Energy Input from nature	MMBTU	0.87	8.9	17	18
Biomass energy	MMBTU	0.62	0.086	0.29	0.073
Impact indicators					
Anthropogenic GHG emissions	lb-CO ₂ -eq	855	2,671	4,566	3,756
Net GHG emissions	lb-CO ₂ -eq	-369	2,691	4,636	3,774
Acid rain air emissions	lb-H ⁺ mole-eq	173	743	1,627	822
Smog potential	g NOx/m	1.4	3.6	5.4	3.3
Ecotoxicity air emissions	lb-2,4-D-eq	1.9	19	16	5.1
Eutrophication air emissions	lb-N-eq	0.087	0.22	0.23	0.17
Resource use					
Fossil fuel use	MMBTU	1.4	13	22	21
Water use	gal	71	267	167	556

Table 1. Environmental performance (per pile)

Environmental Performance

The assessment phase of the LCA uses the inventory results to calculate total energy use, impact indicators of interest, and resource use. For environmental indicators, USEPA's Tool for the Reduction and Assessment of Chemical and Other Environmental Impacts (TRACI)¹ is used to assess anthropogenic and net greenhouse gas, acid rain, smog potential, ecotoxicity, and eutrophication impacts potentially resulting from air emissions. The categorized energy use, resource use, and impact indicators provide general, but quantifiable, indications of environmental performance. The results of this impact assessment are used for comparison of all marine pile products as shown in Table 1.

Treated wood piles result in releases that could impact highly localized marine ecological toxicity. The potential for such releases depends on numerous factors, including water flow or circulation rates, ambient levels of metals, and the number of piles in a row parallel to flow or current. A modeling tool, such as the peer-reviewed and National Oceanic and Atmospheric Administration (NOAA) Fisheries-recognized Preservative Risk Assessment Model, provides a tool to evaluate potential marine ecotoxicity for specific projects in which treated marine piles are being considered.

Wood products begin their life cycles removing carbon from the atmosphere (as carbon dioxide) and atmospheric carbon removal continues as trees grow during their approximate 40-year growth cycle, providing an initial life



Additional Information

This study is further detailed in a Life Cycle Assessment Report completed in May 2014 and is available from Arxada at 1200 Bluegrass Lakes Parkway, Alpharetta, GA 30004. Additional information is also available at WolmanizedWood.com.

This study is based on data collection and analysis done as part of an LCA on CCA-treated marine piles. A manuscript of the CCA-treated marine piles findings was published in the peer-reviewed Journal of Marine Environmental Engineering and is available at <http://www.oldcitypublishing.com/JMEE/JMEEcontents/JMEEv9n3issuuec-ontents.html>.

¹ Bare, J., Norris, G., Pennington, D., & McKone, T. (2003). TRACI—The Tool for the Reduction and Assessment of Chemical and Other Environmental Impacts. Journal of Industrial Ecology, 6(3-4), 49-78

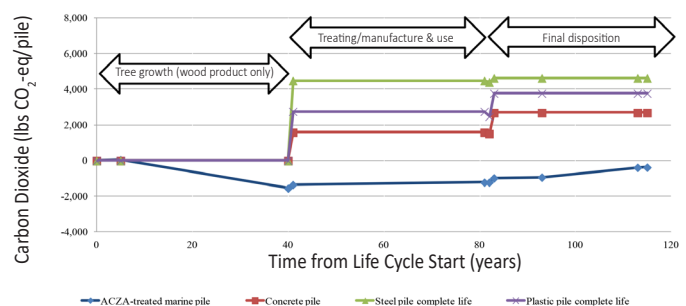


Figure 3. Carbon balance for marine pile products (per pile)
Note: Net carbon less than zero is a reduction of greenhouse gas levels in the atmosphere because of the product's manufacture, use and disposal. Net carbon greater than zero is an increase of greenhouse gas levels in the atmosphere.

cycle carbon credit. Approximately half the mass of dry wood fiber is carbon. Transportation and treating operations are the primary sources of carbon emissions in the manufacture of ACZA-treated wood marine piles.

Non-wood marine pile products begin their life cycle with the extraction of resources, such as limestone or silica sand or carbon-sequestered resources such as oil and coal, and require energy to convert resources into manufactured products.

Minimal life cycle impacts result from the service life stage of either wood or non-wood products. Following the service life stage, ACZA-treated wood piles are recycled for secondary uses or disposed in landfills. Energy recovery from ACZA-treated wood marine piles is evaluated in sensitivity analysis, but not as a likely disposition scenario. Non-wood material piles are recycled, disposed in landfills, or recycled for energy. The carbon balance of each marine pile product, through the life cycle stages, is shown in Figure 3.

Quality Criteria

This study was done as an extension of work performed by the Treated Wood Council and is not intended as a stand-alone LCA. The study includes most elements required for an LCA meeting the International Organization for Standardization (ISO) guidelines as defined in standards ISO/DIS 14040 "Environmental Management – Life Cycle Assessment – Principles and Framework" and ISO/DIS 14044 "Environmental Management – Life Cycle Assessment – Requirements and Guidelines". However, there was no external peer review of the ACZA components of this LCA.

Environmental Life Cycle Assessment of Copper Azole-Treated Lumber Decking with Comparisons to Wood Plastic Composite Decking

Arxada has completed a quantitative evaluation of the environmental impacts associated with the national production, use, and disposition of copper azole-treated lumber decking (Wolmanized® Residential Outdoor® wood) and wood plastic composite decking using life cycle assessment (LCA) methodologies and following ISO 14044 standards. The comparative results confirm:

- **Less Energy & Resource Use:** Copper azole decking requires less total energy, less fossil fuel, and less water than wood plastic composite decking.
- **Lower Environmental Impacts:** Copper azole decking has lower environmental impacts in comparison to wood plastic composite decking in all five of the impact indicator categories assessed: anthropogenic greenhouse gas, acid rain, smog potential, ecotoxicity, and eutrophication-causing emissions.
- **Less Fossil Fuel Use:** The fossil fuel footprint of a copper azole-treated wood deck is equivalent to driving a car 40 miles/year. In comparison, the fossil fuel footprint of a wood plastic composite deck is equivalent to driving a car 540 miles/year.
- **Recoverable Energy:** The carbon embodied in wood makes out-of-service wood products excellent candidates for energy recovery. Treated wood can be used in cogeneration facilities or synthetic fuel manufacturing facilities as a non-fossil fuel source.



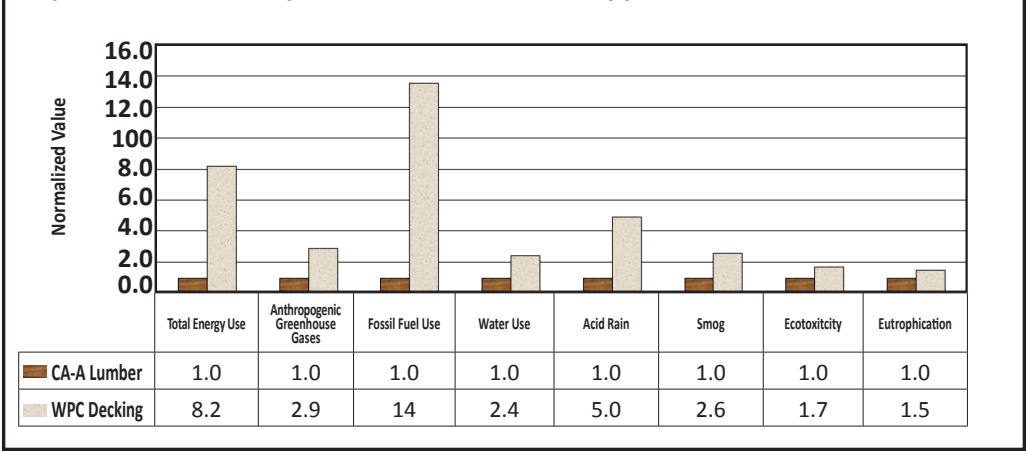
Impact indicator values for the cradle-to-grave life cycle of copper azole-treated lumber decking were normalized to one (1.0), with wood plastic decking impact indicator values being a multiple of one (if larger) or a fraction of one (if smaller). The normalized results are provided in Figure 1.

Scope

The scope of this study includes:

- A life cycle inventory of copper azole-treated lumber decking and wood plastic composite decking, modified from a life cycle inventory of ACQ-treated lumber decking done for the Treated Wood Council.
- Calculation and comparison of life cycle impact assessment indicators: anthropogenic greenhouse gas, acid rain, smog, ecotoxicity, and waterborne eutrophication impacts potentially resulting from life cycle air emissions.
- Calculation of energy, fossil fuel, and water use.

Figure 1. Impact indicator comparison (normalized to copper azole-treated lumber = 1.0)





Impact Category	Units	Copper azole-treated lumber deck	Wood plastic composite deck
Energy Use			
Energy input from technosphere	MMBTU	0.25	1.4
Energy input from nature	MMBTU	0.17	2.1
Biomass energy	MMBTU	0.15	0.0083
Impact indicators			
Anthropogenic GHG emissions	lb-CO ₂ -eq	113	330
Acid rain potential	lb-H+ mole-eq	21	105
Smog potential	g NOx/m	0.11	0.28
Ecotoxicity potential	lb-2,4-D-eq	0.25	0.43
Eutrophication potential	lb-N-eq	0.010	0.015
Resource use			
Fossil fuel use	MMBTU	0.25	3.4
Water use	gal	14	34

Table 1. Environmental performance (per representative deck per year of use)

Environmental Performance

The assessment phase of the LCA uses the inventory results to calculate total energy use, impact indicators of interest, and resource use. For environmental indicators, USEPA's Tool for the Reduction and Assessment of Chemical and Other Environmental Impacts (TRACI) is used to assess anthropogenic greenhouse gas, acid rain, smog potential, ecotoxicity, and eutrophication impacts potentially resulting from air emissions. The categorized energy use, resource use, and impact indicators provide general, but quantifiable, indications of environmental performance. The results of this impact assessment are used for comparison of copper azole-treated lumber decking and wood plastic composite decking as shown in Table 1.

The carbon balance of copper azole-treated lumber decking and wood plastic composite decking, through the life cycle stages, is shown in Figure 3. Wood products begin their life cycles removing carbon from the atmosphere (as carbon dioxide) and atmospheric carbon removal continues as trees grow during their approximate 40-year growth cycle, providing an initial life cycle carbon credit. Approximately half the mass of dry wood fiber is carbon. Wood plastic composite is composed of wood from recovered/recycled cellulose fiber materials and virgin and/or waste plastics.

Transportation and manufacturing operations are the

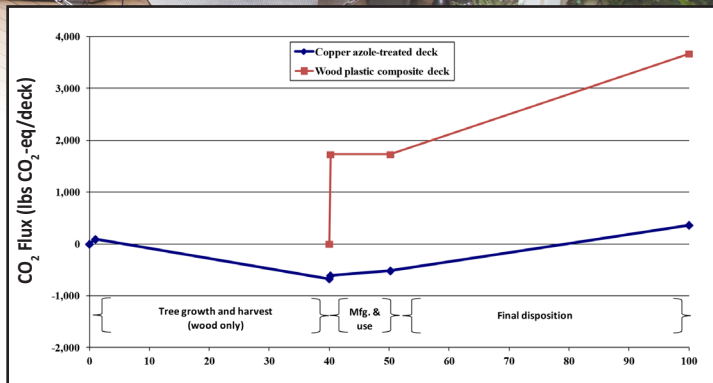


Figure 3. Carbon balance (per deck)

primary sources of carbon emissions in the manufacture of wood products. Wood plastic composites require the conversion of fossil fuels into plastics for virgin materials and collection and processing of wood scrap. Some manufacturers of wood plastic composites use recycled plastics, however burdens associated with transportation, sorting, cleaning, and melting must be included.

During use, this assessment assumes that one application of sealant is applied to the copper azole-treated lumber deck. Minimal carbon use or release occurs during use of wood plastic composites. Following the service life stage, both copper azole-treated lumber decking and wood plastic composite decking are assumed to be disposed in a landfill.

Quality Criteria

This study was done as an extension of work performed by the Treated Wood Council and is not intended as a stand-alone LCA. The study includes most elements required for an LCA meeting the International Organization for Standardization (ISO) guidelines as defined in standards ISO/DIS 14040 "Environmental Management – Life Cycle Assessment – Principles and Framework" and ISO/DIS 14044 "Environmental Management – Life Cycle Assessment – Requirements and Guidelines". However, there was no external peer review of the copper azole components of this LCA.

Additional Information

This study is further detailed in a Life Cycle Assessment Report completed in March 2011 and is available upon request from Arxada at 1200 Bluegrass Lakes Parkway, Alpharetta, GA 30004 (WolmanizedWood.com).

This study is based on data collection and analysis done as part of an LCA on ACQ-Treated Lumber used as Decking. A manuscript of the ACQ-treated lumber decking findings was published in the peer-reviewed Journal of Cleaner Production and is available at <http://dx.doi.org/10.1016/j.jclepro.2010.12.004>.



Model Specification for ACZA-Treated Wood

The following paragraphs are for insertion into a section of generic specifications or generic/proprietary specifications covering rough carpentry to include preservative treated wood. Notes shown in italics should not be included in the final specification.

PART 1 GENERAL

1.01 REFERENCES

- A. American Wood Protection Association (AWPA) Book of Standards:
 - 1. Standard U1, Use Category System: User Specification for Treated Wood.
 - 2. Standard P22, Standard for Ammoniacal Copper Zinc Arsenate (ACZA).
 - 3. Standard M4, Standard for the Handling, Storage, Field Fabrication, and Field Treatment of Preservative-Treated Wood Products.
 - 4. Standard T1, UCS Processing and Treatment Standard.
- B. National Institute of Standards and Technology (NIST):
 - 1. PS 1, U.S. Product Standard for Construction and Industrial Plywood.
 - 2. PS 20, American Softwood Lumber Standard.
- C. Western Wood Preservers Institute
 - 1. Best Management Practices for the Use of Treated Wood in Aquatic Environments.

1.02 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Treatment Facility: Provide treated materials that have been produced under the appropriate ASTM or ANSI standard or an ALSC recognized quality assurance program.

1.03 DELIVERY, STORAGE, AND HANDLING

If drying after treatment is selected in Part 2, retain the two paragraphs below.

- A. Packing and Shipping:
 - 1. Provide waterproof covers for preservative treated wood during shipment.
- B. Storage and Protection:
 - 1. Store preservative treated wood off the ground and protected from the weather.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Preservative: Chemonite® ACZA (Ammoniacal Copper Zinc Arsenate); Arch Wood Protection, Inc.

2.02 MATERIALS

Lumber for preservative treatment must conform to the following specifications. Select grade and species below. Other grades and species may be acceptable, contact Arch to verify.

A. Lumber: In accordance with NIST PS 20 and as follows:

1. Grade:
2. Species:
3. Surfacing:
4. Moisture Content: 19%, maximum.

Plywood for preservative treatment must conform to the following specifications. Select panel grade, exposure durability, species group, and structural rating from below.

A. Plywood: In accordance with NIST PS 1 and as follows:

1. Panel Grade: A-C.
1. Panel Grade: B-C.
1. Panel Grade: C-C.
1. Panel Grade: C-D.
2. Exposure Durability: Exterior.
2. Exposure Durability: Exposure 1.
3. Species Group: 1.
3. Species Group: 2.
4. APA Structural Rating: Structural I.
4. APA Structural Rating: Structural II.

B. Preservative: ACZA in accordance with AWP A P5.

2.03 PRESERVATIVE TREATMENT

A. Pressure Treatment: In accordance with the requirements of AWP A Standard U1 and in accordance with the following Commodity Specification:

1. A: Sawn Products.
2. B: Posts.
3. D: Poles.
3. E: Round Timber Piling.
4. F: Wood Composites (including Plywood).
5. G: Marine (Salt Water) Applications.

B. Preservative Retention: In accordance with AWP A Standard U1 and appropriate Commodity Specification for the following use category:

1. UC2 Interior construction, Above Ground, damp.
2. UC3A Exterior construction, Above Ground, coated & rapid water run-off.
3. UC3B Exterior construction, Above Ground, uncoated or poor water run-off.
4. UC4A Ground Contact or Fresh Water, non-critical components.
5. UC4B Ground Contact or Fresh Water, critical components or difficult replacement.
6. UC4C Ground Contact or Fresh Water, critical structural components.
7. UC5A Salt or brackish water and adjacent mud zone, northern waters.
8. UC5B Salt or brackish water and adjacent mud zone, NJ to GA, south of San Francisco.
9. UC5C Salt or brackish water and adjacent mud zone, south of GA, Gulf Coast, Hawaii, and Puerto Rico.

C. Moisture Content: Drying after treatment is not required.

Select above or below.

C. Moisture Content: Dry after treatment as follows:

1. Lumber: 19%, maximum.
2. Plywood: 18%, maximum.
3. Plywood: 15%, maximum (*for Permanent Wood Foundation*).

Retain below if fixed preservative is required for aquatic environments.

D. Pressure Treatment of Materials for Aquatic Environments: In accordance with the Best Management Practices published by the Western Wood Preservers Institute.

2.05 SOURCE QUALITY CONTROL

A. Inspection:

1. Untreated Material:

- a. Lumber: Provide lumber that has been inspected and graded before treatment by an ALSC-recognized grading agency.
- b. Plywood: Provide plywood that has been inspected and graded before treatment by a code-recognized inspection and testing agency.
- c. Poles: Provide poles that have been inspected and graded before treatment in accordance with ANSI standards.
- d. Piling: Provide piling that has been inspected and graded before treatment in accordance with ASTM standards.

2. Treated Material: Provide treated material that bears the quality mark of an ALSC-recognized agency which maintains supervision, testing, and inspection of the quality of the product.

PART 3 EXECUTION

3.01 INSTALLATION

Below is not generally required for sapwood species such as southern pine less than 5 inches thick in the eastern and central U.S. No other special installation specifications are required for preservative treated wood.

A. Surface Treatment of Field Cuts: Treat field cuts on members that provide structural support to a permanent structure in accordance with AWP Standard M4.

Model Specification for Copper Azole Treated Wood

The following paragraphs are for insertion into a section of generic specifications or generic/ proprietary specifications covering rough carpentry to include preservative treated wood.

PART 1: GENERAL

1.01 REFERENCES

- A. American Wood Protection Association (AWPA 2017 Book of Standards):
 - 1. Copper Azole AWPA listed preservatives:
 - a. Standard P62-16, Micronized Copper Azole Waterborne Preservative
 - b. Standard P48-15 Copper Azole Waterborne preservative
 - 2. Standard E13, Standard Method of Testing to Determine Water Repellents in Pressure Treated Lumber.
 - 3. Standard M4, Care of Preservative - Treated Wood Products.
 - 4. Standard U1, Use Category System
- B. National Institute of Standards and Technology (NIST):
 - 1. PS 1, U.S. Product Standard for Construction and Industrial Plywood.
 - 2. PS 20, American Softwood Lumber Standard.
- C. ICC Evaluation Service, Inc.
 - 1. ESR-1721

1.02 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Treatment Facility: Provide treated materials that have been produced under quality assurance program conducted by an ALSC-recognized agency.

1.03 DELIVERY, STORAGE, AND HANDLING

If drying after treatment is selected in part 2, retain the two paragraphs below.

- A. Packing and Shipping:
 - 1. Provide waterproof covers for preservative treated wood during shipment.
- B. Storage and Protection:
 - 1. Store preservative treated wood off the ground and protected from the weather.

PART 2: PRODUCTS

2.01 MANUFACTURERS

- A. Preservative: Wolman® E Copper Azole; Arch Treatment Technologies, Inc.

Retain below if water repellent is required.

- Water Repellent: Wolman® WE water repellent; Arch Treatment Technologies, Inc.

2.02 MATERIALS

Lumber for preservative treatment must conform to the following specifications. Select grade and species below. Other species are acceptable for some applications, contact Arch or review code evaluation reports for more information. Not all species are readily available in all areas of the country.

- A. Lumber: In accordance with NIST PS 20 and as follows:

- 1. Grade: No. 1
- 1. Grade: No. 2
- 1. Grade: No. 1 Dense
- 1. Grade: No. 2 Dense
- 1. Grade: Select structural
- 1. Grade: Standard
- 1. Grade: Premium
- 2. Species: Southern pine

Model Specification for Copper Azole Treated Wood

2. Species: Red pine.

- 2. Species: Ponderosa pine
- 2. Species: Hem-fir
- 2. Species: Douglas fir
- 2. Species: Western hemlock
- 2. Species: Eastern white pine
- 2. Species: Radiata pine
- 2. Species: Caribbean pine
- 3. Surfacing: S4S
- 3. Surfacing: S1S2E
- 3. Surfacing: Rough

Plywood for preservative treatment must conform to the following specifications.

Select panel grade, exposure durability, species group, and structural rating from below.

B. Plywood: In accordance with NIST PS 1 and as follows:

- 1. Panel Grade: A-C
- 1. Panel Grade: B-C
- 1. Panel Grade: C-C
- 1. Panel Grade: C-D
- 2. Exposure Durability: Exterior
- 2. Exposure Durability: Exposure 1
- 3. Southern pine face veneers, Group 1 or 2 - no hardwood core veneers
- 3. Douglas fir face veneers, Group 1 or 2 - no hardwood core veneers
- 4. APA Structural Rating: Structural I
- 4. APA Structural Rating: Structural II

C. Preservative: Copper Azole

2.03 PRESERVATIVE TREATMENT

A. Pressure Treatment: In accordance with requirements of ICC Evaluation Report ESR-1721.

B. Minimum Preservative Retention: In accordance with requirements for the following applications:

- 1. Above Ground
- 2. Ground or Fresh Water Contact
- 3. Structural Posts and Poles (Sawn or Round)
- 4. Round Timber Piling

C. Moisture Content: Drying after treatment is not required.

Select above or below.

C. Moisture Content: Dry after treatment as follows:

- 1. Lumber: 19%, maximum
- 2. Plywood: 18%, maximum

Retain below if water repellent is required.

2.04 WATER REPELLENT TREATMENT

A. Factory water repellent applied with preservative treatment.

2.05 SOURCE QUALITY CONTROL

A. Inspection:

1. Untreated Material:

- a. Lumber: Provide lumber that has been inspected and graded by an ALSC-recognized grading agency.
- b. Plywood: Provide plywood that has been inspected and graded before treatment by a code-recognized inspection and testing agency.

Model Specification for Copper Azole Treated Wood

2. Treated Material: Provide treated material that bears the Wolmanized trademark and the quality mark of an ALSC-recognized agency which maintains supervision, testing, and inspection of the quality of the product. Quality marks shall be affixed to each piece and include the following:
 - a. Identification of the inspection agency.
 - b. Identification of the standard to which the material was treated.
 - c. Identification of the treating facility.
 - d. Identification of the preservative and retention.
 - e. Identification of the end use for which the product is suitable.

PART 3: EXECUTION

3.01 INSTALLATION

Below is a general recommendation for all preservative treated wood.

- A. Surface Treatment of Field Cuts: Treat field cuts in accordance with AWPAs Standard M4.

SAFETY DATA SHEET

Issue Date 27-May-2015

Revision Date 09-Dec-2021

Version 4

1. IDENTIFICATION

Product identifier

Product Name

Chemonite® Treated Wood

Other means of identification

Product Code

20007

Synonyms

ACZA Treated Wood

Recommended use of the chemical and restrictions on use

Recommended Use

Treated Wood.

Details of the supplier of the safety data sheet

Supplier Address

Manufacturer Address

Customers and Licensees of:
Arch Wood Protection, Inc.
3941 Bonsal Road
Conley, GA 30288

Emergency telephone number

Company Phone Number

Emergency Telephone

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 3
Serious eye damage/eye irritation	Category 2B
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

Causes eye irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause cancer
May cause an allergic skin reaction

May cause respiratory irritation
Causes mild skin irritation



Physical state Solid

Odor Slight Ammonia

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

IF exposed or concerned: 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 eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Precautionary Statements - Disposal

Dispose of contents/ container to an approved landfill

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Causes mild skin irritation

Unknown acute toxicity

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Synonyms

ACZA Treated Wood.

Chemical Name	CAS No.	Weight-%	Trade Secret
---------------	---------	----------	--------------

Wood and Wood Dust	NOT ASSIGNED	90 - 100	
Ammonium hydroxide (>10 %)	1336-21-6	0.3 - 3	
Cupric Oxide	1317-38-0	0.3 - 3	
Zinc oxide	1314-13-2	0.3 - 3	
Arsenic Pentoxide	1303-28-2	0.3 - 3	

4. FIRST AID MEASURES

Description of first aid measures

General advice	If symptoms persist, call a physician.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Do not rub affected area.
Skin contact	Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed

Symptoms	See Section 11: TOXICOLOGICAL INFORMATION.
-----------------	--

Indication of any immediate medical attention and special treatment needed

Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.
---------------------------	--

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Carbon dioxide (CO₂). Water spray or fog.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. May cause sensitization in susceptible persons.

Hazardous combustion products Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions See Section 12: ECOLOGICAL INFORMATION.

Methods and material for containment and cleaning up

Methods for containment Cover with plastic sheet to prevent spreading.

Methods for cleaning up Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Do not burn treated wood. Do not use pressure treated chips or sawdust as mulch. Use with local exhaust ventilation. May form combustible dust concentrations in air. Take precautionary measures against static discharges. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Do not breathe dust/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions Avoid generation of dust.

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Wood and Wood Dust NOT ASSIGNED	1.0 mg/m ³ Inhalable, 0.5 mg/m ³ Inhalable Western Red Cedar	15 mg/m ³ Total Dust 5.0 mg/m ³ Respirable Fraction	-
Cupric Oxide 1317-38-0	TWA: 1 mg/m ³ Cu dust and mist	-	IDLH: 100 mg/m ³ Cu dust and mist TWA: 0.1 mg/m ³ Cu fume TWA: 1 mg/m ³ Cu dust and mist
Zinc oxide 1314-13-2	STEL: 10 mg/m ³ respirable particulate matter TWA: 2 mg/m ³ respirable particulate matter	TWA: 5 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ fume (vacated) TWA: 10 mg/m ³ total	IDLH: 500 mg/m ³ Ceiling: 15 mg/m ³ dust TWA: 5 mg/m ³ dust and fume STEL: 10 mg/m ³ fume

		dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) STEL: 10 mg/m ³ fume	
Arsenic Pentoxide 1303-28-2	TWA: 0.01 mg/m ³ As	TWA: 10 µg/m ³ As	IDLH: 5 mg/m ³ As Ceiling: 0.002 mg/m ³ As 15 min

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls

Showers. Eyewash stations. Ventilation: Saw, cut or machine wood outdoors or in well ventilated areas. Due to the explosive potential of dust when suspended in air, precautions should be taken when sawing, sanding, or machining wood or wood products to prevent sparks or other ignition sources. If required, use wet methods and/or explosion suppression systems to reduce generation of dust. Local exhaust ventilation is recommended when sawing, sanding, or machining this product. General dilution ventilation is recommended in processing and storage areas.

Individual protection measures, such as personal protective equipment

Eye/face protection

Use safety glasses with side shields or chemical goggles when sawing or cutting treated or untreated wood.

Skin and body protection

Wear leather gloves. Wear long sleeve shirt, pants, and steel-toed shoes when handling treated or untreated wood.

Respiratory protection

None normally required. When sawing or cutting treated or untreated wood, wear a NIOSH approved N95 or better dust mask.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state

Solid

Appearance

No information available

Color

dark brown dark green

Odor

Slight Ammonia

Odor threshold

No information available

Property

Values

Remarks • Method

pH

No information available

Melting point / freezing point

No information available

Boiling point / boiling range

No information available

Flash point

Evaporation rate

No information available

Flammability (solid, gas)

No information available

Flammability Limit in Air

Upper flammability limit:

No information available

Lower flammability limit:

No information available

Vapor pressure

No information available

Vapor density

No information available

Relative density	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

Inhalation	WOOD and WOOD DUST :. May cause cancer. May cause sensitization by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Eye contact	WOOD and WOOD DUST :. Irritating to eyes.
Skin contact	WOOD and WOOD DUST :. May cause irritation. May cause allergic skin reaction.
Ingestion	WOOD and WOOD DUST :. Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium hydroxide (>10 %) 1336-21-6	= 350 mg/kg (RT)	-	-
Cupric Oxide 1317-38-0	>2,500 mg/kg (RT)	>3,500 mg/kg (RT)	-
Zinc oxide 1314-13-2	> 2000 mg/kg (RT)	>2000 mg/kg (RT)	-
Arsenic Pentoxide 1303-28-2	69.3 mg/kg (RT)	1235 mg/Kg (RBT)	0.46 mg/L (RT) 4h

Note:
 RT = Rat
 RBT = Rabbit
 MSE = Mouse
 GP = Guinea Pig
 V = Vapour

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chemical Name	ACGIH	IARC	NTP	OSHA
Wood and Wood Dust NOT ASSIGNED	X	Group 1	X	X
Arsenic Pentoxide 1303-28-2	A1	Group 1	Known	X

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Numerical measures of toxicity - Product Information

ATEmix (oral)
 ATEmix (dermal)
 ATEmix (inhalation-gas)
 ATEmix (inhalation-dust/mist)
 ATEmix (inhalation-vapor)

Numerical measures of toxicity

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Ammonium hydroxide (>10 %) 1336-21-6	-	8.2 mg/L LC50 96h (Pimephales promelas)	0.66 mg/L EC50 48h (Daphnia magna)
Cupric Oxide 1317-38-0	-	0.0384 mg/L LC50 96h (Pimephales promelas)	-
Zinc oxide 1314-13-2	0.044 mg/L EC50 72h (Pseudokirchneriella subcapitata)	0.112 mg/L LC50 96h (Thymallus articus)	>1.0 mg/L EC50 24h (Daphnia magna)
Arsenic Pentoxide 1303-28-2	10.5 mg/L EC50 72h (Pseudokirchneriella subcapitata)	17.3 mg/L LC50 96 h (Cyprinodon variegatus)	1.11 mg/L EC50 48 h (Daphnia pulex)

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal of wastes**

DO NOT BURN TREATED WOOD. Do not use pressure treated chips or sawdust as mulch. Dispose of in accordance with local, state and federal regulations. This product is exempted as a hazardous waste under any sections of the RCRA regulations as long as the product is being utilized for its intended end use as stated in 40 CFR 261.4 (b) (9). State run hazardous waste programs may be more stringent. Dispose of in accordance with federal, state and local regulations.

Contaminated packaging

No information available.

Chemical Name	California Hazardous Waste Status
Ammonium hydroxide (>10 %) 1336-21-6	Toxic Corrosive
Cupric Oxide 1317-38-0	Toxic
Zinc oxide 1314-13-2	Toxic

14. TRANSPORT INFORMATION**DOT**

Not regulated

15. REGULATORY INFORMATION**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Arsenic Pentoxide - 1303-28-2	0.1

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonium hydroxide (>10 %) 1336-21-6	1000 lb	-	-	X
Cupric Oxide 1317-38-0	-	X	-	-
Zinc oxide 1314-13-2	-	X	-	-
Arsenic Pentoxide 1303-28-2	1 lb	X	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ammonium hydroxide (>10 %) 1336-21-6	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ
Arsenic Pentoxide 1303-28-2	1 lb	1 lb	RQ 1 lb final RQ RQ 0.454 kg final RQ

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Wood and Wood Dust - NOT ASSIGNED	Carcinogen
Arsenic Pentoxide - 1303-28-2	Carcinogen Developmental

Warning: This wood contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ammonium hydroxide (>10 %) 1336-21-6	X	X	X
Cupric Oxide 1317-38-0	X	-	X
Ammonium bicarbonate 1066-33-7	X	X	X
Zinc oxide	X	X	X

1314-13-2			
Arsenic Pentoxide 1303-28-2	X	X	X

U.S. EPA Label Information**EPA Pesticide Registration Number** Not applicable**16. OTHER INFORMATION****Issue Date** 27-May-2015**Revision Date** 09-Dec-2021**Revision Note**

No information available

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

SAFETY DATA SHEET

Issue Date 27-May-2015

Revision Date 16-Dec-2021

Version 4

1. IDENTIFICATION

Product identifier

Product Name

Wolmanized® Heavy Duty™ Wood

Other means of identification

Product Code

20001

Synonyms

CCA Treated Wood

Recommended use of the chemical and restrictions on use

Recommended Use

Treated Wood.

Details of the supplier of the safety data sheet

Supplier Address

Manufacturer Address

Customers and Licensees of:
Arch Wood Protection, Inc.
3941 Bonsal Road
Conley, GA 30288

Conrad Forest Products
68765 Wildwood Drive
North Bend, OR 97459

Emergency telephone number

Company Phone Number

541-766-2595

Emergency Telephone

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 3
Serious eye damage/eye irritation	Category 2B
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

Causes eye irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May cause cancer
May cause respiratory irritation
Causes mild skin irritation

**Physical state** Solid**Odor** No information available**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Avoid breathing dust/fume/gas/mist/vapors/spray
 In case of inadequate ventilation wear respiratory protection
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves
 Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 Specific treatment (see First Aid on this label)
 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 ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse
 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Causes mild skin irritation

Other Information

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Synonyms

CCA Treated Wood.

Chemical Name	CAS No.	Weight-%	Trade Secret
Wood and Wood Dust	NOT ASSIGNED	90 - 100	
Chromic Acid	7738-94-5	0.1 - 1	
Arsenic Acid	7778-39-4	0.1 - 1	
Cupric Oxide	1317-38-0	0.1 - 1	
Lead	7439-92-1	<0.1	

Chromic Acid, Arsenic Acid, and Copper Oxide are present in the preservative used to treat this wood. Actual retention may vary due to differences in wood stock and treatment retention levels. Although the Chrome VI present in the Chromic Acid used to treat this wood is reduced to Chrome III during the treating and fixation processes, some Chrome VI may be present. Due to this, OSHA's Hexavalent Chromium Rule (29 CFR 1910.1026) may apply. The manufacturer of this treated wood has monitoring data indicating the levels will be below the established limits and action levels when used under usual conditions. If unusual circumstances exist, monitoring may be required. A state-run OSHA program may have more stringent limits for wood dust and/or PNOR.

4. FIRST AID MEASURES

Description of first aid measures

General advice	If symptoms persist, call a physician.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
Self-protection of the first aider	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms See Section 11: TOXICOLOGICAL INFORMATION.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Carbon dioxide (CO₂). Water spray or fog.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. May cause sensitization in susceptible persons.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. See Section 12: ECOLOGICAL INFORMATION.

Methods and material for containment and cleaning up

Methods for containment Cover with plastic sheet to prevent spreading.

Methods for cleaning up Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Do not burn treated wood. Do not use pressure treated chips or sawdust as mulch. Use with local exhaust ventilation. May form combustible dust concentrations in air. Take precautionary measures against static discharges. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Do not breathe dust/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions Avoid generation of dust.

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Wood and Wood Dust NOT ASSIGNED	1.0 mg/m ³ Inhalable, 0.5 mg/m ³ Inhalable Western Red Cedar	15 mg/m ³ Total Dust 5.0 mg/m ³ Respirable Fraction	-
Chromic Acid 7738-94-5	-	TWA: 5 µg/m ³ (vacated) Ceiling: 0.1 mg/m ³ Ceiling: 0.1 mg/m ³ CrO ₃ applies to any operations or sectors for which the Hexavalent Chromium standard [29 CFR 1910.1026] is stayed or is otherwise not in effect	TWA: 0.0002 mg/m ³ Cr
Arsenic Acid 7778-39-4	TWA: 0.01 mg/m ³ As	TWA: 10 µg/m ³ As	IDLH: 5 mg/m ³ As Ceiling: 0.002 mg/m ³ As 15 min
Cupric Oxide 1317-38-0	TWA: 1 mg/m ³ Cu dust and mist	-	IDLH: 100 mg/m ³ Cu dust and mist TWA: 0.1 mg/m ³ Cu fume TWA: 1

			mg/m ³ Cu dust and mist
Lead 7439-92-1	TWA: 0.05 mg/m ³ TWA: 0.05 mg/m ³ Pb	TWA: 50 µg/m ³ TWA: 50 µg/m ³ Pb	IDLH: 100 mg/m ³ IDLH: 100 mg/m ³ Pb TWA: 0.050 mg/m ³ TWA: 0.050 mg/m ³ Pb

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems. Ventilation: Saw, cut or machine wood outdoors or in well ventilated areas. Due to the explosive potential of dust when suspended in air, precautions should be taken when sawing, sanding, or machining wood or wood products to prevent sparks or other ignition sources. If required, use wet methods and/or explosion suppression systems to reduce generation of dust. Local exhaust ventilation is recommended when sawing, sanding, or machining this product. General dilution ventilation is recommended in processing and storage areas.

Individual protection measures, such as personal protective equipment

Eye/face protection Use safety glasses with side shields or chemical goggles when sawing or cutting treated or untreated wood.

Skin and body protection Wear leather gloves. Wear long sleeve shirt, pants, and steel-toed shoes when handling treated or untreated wood.

Respiratory protection None normally required. When sawing or cutting treated or untreated wood, wear a NIOSH approved N95 or better dust mask.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid	Odor	No information available
Appearance	No information available	Odor threshold	No information available
Color	Slightly green		
Property	Values	Remarks • Method	
pH	No information available		
Melting point / freezing point	No information available		
Boiling point / boiling range	No information available		
Flash point	Not applicable		
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit:	No information available		
Lower flammability limit:	No information available		
Vapor pressure	No information available		
Vapor density	No information available		
Relative density	No information available		

Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Inhalation	WOOD and WOOD DUST :. May cause cancer. May cause sensitization by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Eye contact	WOOD and WOOD DUST :. Irritating to eyes.
Skin contact	WOOD and WOOD DUST :. May cause irritation. May cause allergic skin reaction.
Ingestion	WOOD and WOOD DUST :. Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Chromic Acid 7738-94-5	52 mg/kg (RT)	57 mg/kg (RBT)	0.217 mg/L (RT 4h)
Arsenic Acid 7778-39-4	= 141.4 mg/kg (MSE)	= 1,750 mg/kg (RBT)	-

Cupric Oxide 1317-38-0	>2,500 mg/kg (RT)	>3,500 mg/kg (RT)	-
Lead 7439-92-1	>2000 mg/kg (RT)	>2000 mg/kg (RT)	-

Note:
 RT = Rat
 RBT = Rabbit
 MSE = Mouse
 GP = Guinea Pig
 V = Vapour

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Wood and Wood Dust NOT ASSIGNED	X	Group 1	X	X
Chromic Acid 7738-94-5	-	Group 1	Known	X
Arsenic Acid 7778-39-4	A1	Group 1	Known	X
Lead 7439-92-1	A3	Group 2B	Reasonably Anticipated	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Chronic toxicity

Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.

Other adverse effects

Study Abstracts: In Hawaii, where over 45,000 homes have been built almost entirely of CCA-treated wood, a study was conducted by the Pacific Biomedical Center of the University of Hawaii (the Budy-Rashad study) in 1977 to determine any possible effect on the health of carpenters. The study concluded that exposure to CCA-treated sawdust is not associated with increased risk of total cancer, lung cancer or lymphatic cancer and shows that excess respiratory cancer mortality was not observed in the carpenters.

A study was conducted by the University of Alabama to evaluate the teratogenicity of CCA-impregnated sawdust when exposed to rabbits and mice. Sawdust from CCA-treated wood has been shown not to cause chromosome damage or teratogenic effects in mice fed sawdust nor to cause birth defects in rabbits receiving sawdust applied to their skin. According to a Human Health Risk Assessment conducted by Gradient Corporation in August 2004, potential health risks to workers and residents do not exceed U.S. Environmental Protection Agency acceptable risk limits. Although the arsenic complex (the predominate chemical form of arsenic in CCA-treated wood is chromium III arsenate) is present on the surface of CCA-treated utility poles and in surrounding soils, the arsenic in these poles is chemically bonded to the wood and is not readily absorbed in the body. This risk assessment evaluated exposures to arsenic complex on the surface of CCA treated utility poles and in soil adjacent to the poles. Exposure was evaluated for both hand to mouth contact and skin contact for a child resident age 2-6 and an adult utility pole worker. The assessment results also indicate that the amount of arsenic complex potentially taken into the body from exposures to CCA-treated utility poles and adjacent soils for a child

resident is approximately 8 fold less than the intake of naturally occurring inorganic arsenic in food and drinking water at the new federal drinking water standard for arsenic. An adult worker is exposed to over 24 fold less arsenic complex associated with CCA-treated utility poles, compared to intake of inorganic arsenic from food and drinking water.

Carcinogenic status: IARC, the NTP, OSHA and California Proposition 65 do not consistently distinguish among arsenic or chrome species but list inorganic arsenic and chromium and certain chromium compounds as human carcinogens. Cancers in humans have followed from long term consumption of Fowler's Solution, a medicinal trivalent arsenical; inhalations and skin contact with inorganic trivalent arsenical sheep-dust; the combined inhalation of arsenic trioxide (trivalent arsenical), sulfur dioxide, and other particulates from ore smelting in arsenic trioxide production; and occupational exposure to nonwater-soluble hexavalent chromium. Carcinogenicity Data: IARC has classified untreated hardwood and hardwood/softwood mix wood dust as a Group I human carcinogen. The wood dust classification is based primarily on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with occupational exposures to untreated wood dust. NTP has classified all untreated wood dust as a carcinogen.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)
ATEmix (dermal)
ATEmix (inhalation-gas)
ATEmix (inhalation-dust/mist)
ATEmix (inhalation-vapor)

Numerical measures of toxicity

12. ECOLOGICAL INFORMATION

Ecotoxicity

Study Abstracts: A technical paper published in the Forest Products Journal (September, 1974) by Levi, Huisingsh and Nesbitt described a study conducted to determine if CCA wood preservative in grapevine support posts might be absorbed by the vines, leaves and/or grapes. This study concluded that "... CCA preservatives are bound in wood, are not readily leached and are not concentrated in plants growing close to the treated wood."

The Springborn Laboratories Environmental Sciences Division in 1993 conducted a sediment exposure study using leachate from CCA treated and untreated marine pilings and exposing *Ampelisca abdita* for a period of 10 days. Survival of the organisms during the 10-day exposure period was the biological endpoint used to establish the effects of exposure. Results indicated that leachate from treated pilings had no adverse effect on organism survival. It was concluded that the primary constituents of the CCA-treated wood piling were not present in the leachate at concentrations which would adversely affect the survival of the organisms.

Testing has been conducted to evaluate the use of treated wood in raised vegetable gardens. Vegetables harvested from gardens in raised bed structures built of CCA-treated wood were compared with vegetables grown in untreated raised bed structures and with vegetables purchased at a local grocery store. Testing revealed that all vegetables contained minuscule amounts of each element in CCA. In some cases, the levels of metals were actually higher in the vegetables grown in untreated bins, and in one case the store-purchased vegetable had the highest level of arsenic. The report concluded that there was "no uptake of the metal constituents into the vegetables."

The Food and Drug Administration's (FDA) "Market Basket Survey" has consistently shown that arsenic in tomatoes is below the analytical level of detection despite the increased usage of arsenically-treated wood for tomato stakes. Moreover, even though CCA-treated wood has been increasingly used in applications such as cattle bunks and stalls and poultry brooders for the last ten years, the FDA survey has shown a decrease in the arsenic content of dairy, meat and poultry products.

A study funded in part by the National Oceanic and Atmospheric Administration (NOAA) and prepared by the Marine Resources Division of the South Carolina Department of Natural Resources in 1995 measured the impact of wood preservative leachate from docks in an estuarine environment. Copper, chromium, arsenic, and polynuclear aromatic hydrocarbons (PAHs) were measured in composite samples of sediments and naturally occurring oyster populations from creeks with high densities of docks, and from

nearby reference creeks with no docks. Sediments from all but one site had metal and total PAH concentrations which were below levels reported to cause biological effects, and the oysters showed no significant difference in their physiological condition. Bioassays were also conducted on four common estuarine species and hatchery-reared oysters. The results suggest that wood preservative leachates from dock pilings have no acutely toxic effects on these common species, nor do they affect the survival or growth of juvenile oysters over a six-week period. In some cases, metal leachates may accumulate in sediments and oysters immediately adjacent to pilings, but do not appear to become concentrated in sediments or oysters elsewhere in the same creeks.

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Chromic Acid 7738-94-5	0.99 mg/L EC50 72h (Pseudokirchneriella subcapitata)	33.2 mg/L LC50 96h (Pimephales promelas)	0.035 mg/L EC50 48h (Daphnia magna)
Arsenic Acid 7778-39-4	0.048 mg/L EC50 72h (Scenedesmus obliquus)	28 mg/L LC50 96h (Cyprinodon variegatus)	2 mg/L EC50 96h (Americamysis Bahia)
Cupric Oxide 1317-38-0	-	0.0384 mg/L LC50 96h (Pimephales promelas)	-
Lead 7439-92-1	0.0205 mg/L EC50 72h (Pseudokirchneriella subcapitata)	0.107 mg/L LC50 96h (Oncorhynchus mykiss)	0.07 mg/L EC50 48h (Ceriodaphnia dubia)

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal of wastes**

DO NOT BURN TREATED WOOD. Do not use pressure treated chips or sawdust as mulch. Dispose of in accordance with local, state and federal regulations. This product is exempted as a hazardous waste under any sections of the RCRA regulations as long as the product is being utilized for its intended end use as stated in 40 CFR 261.4 (b) (9). State run hazardous waste programs may be more stringent.

Contaminated packaging

No information available.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Chromic Acid 7738-94-5	Toxic Corrosive Ignitable
Cupric Oxide 1317-38-0	Toxic
Lead 7439-92-1	Toxic

14. TRANSPORT INFORMATION**DOT**

Not regulated

TDG

Not regulated

<u>MEX</u>	Not regulated
<u>ICAO (air)</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated
<u>RID</u>	Not regulated
<u>ADR</u>	Not regulated
<u>ADN</u>	Not regulated

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Chromic Acid - 7738-94-5	0.1
Arsenic Acid - 7778-39-4	0.1

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Chromic Acid 7738-94-5	10 lb	X	-	-
Arsenic Acid 7778-39-4	-	X	-	-
Cupric Oxide 1317-38-0	-	X	-	-
Lead 7439-92-1	-	X	X	-

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Chromic Acid 7738-94-5	10 lb	-	RQ 10 lb final RQ RQ 4.54 kg final RQ
Arsenic Acid 7778-39-4	1 lb	-	RQ 1 lb final RQ RQ 0.454 kg final RQ
Lead 7439-92-1	10 lb	-	RQ 10 lb final RQ RQ 4.54 kg final RQ

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Wood and Wood Dust - NOT ASSIGNED	Carcinogen
Chromic Acid - 7738-94-5	Carcinogen Developmental Female Reproductive Male Reproductive
Arsenic Acid - 7778-39-4	Carcinogen
Lead - 7439-92-1	Carcinogen Developmental Female Reproductive Male Reproductive

Warning: This wood contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Chromic Acid 7738-94-5	X	X	X
Arsenic Acid 7778-39-4	X	X	X
Cupric Oxide 1317-38-0	X	-	X
Lead 7439-92-1	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number N/A

16. OTHER INFORMATION

Issue Date 27-May-2015

Revision Date 16-Dec-2021

Revision Note

No information available

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

SAFETY DATA SHEET

Issue Date 27-May-2015

Revision Date 09-Dec-2021

Version 4

1. IDENTIFICATION

Product identifier

Product Name

Wolmanized® Outdoor® Wood

Other means of identification

Product Code

23455

Synonyms

Copper Azole Treated Wood

Recommended use of the chemical and restrictions on use

Recommended Use

Treated Wood.

Details of the supplier of the safety data sheet

Supplier Address

Manufacturer Address

Customers and Licensees of:
Arch Treatment Technologies, Inc
3941 Bonsal Road
Conley, GA 30288

Conrad Forest Products
68765 Wildwood Drive
North Bend, OR 97459

Emergency telephone number

Company Phone Number

541-766-2595

Emergency Telephone

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 3
Serious eye damage/eye irritation	Category 2B
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

May cause cancer
Causes eye irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May cause respiratory irritation
Causes mild skin irritation

**Physical state** Solid**Odor** No information available**Precautionary Statements - Prevention**

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

IF exposed or concerned: 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 eye irritation persists: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Causes mild skin irritation

3. COMPOSITION/INFORMATION ON INGREDIENTS**Substance**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Synonyms

Copper Azole Treated Wood.

Chemical Name	CAS No.	Weight-%	Trade Secret
Wood and Wood Dust	NOT ASSIGNED	99 - 100	
Copper Ethanolamine Complex	14215-52-2	0.1 - 1	

4. FIRST AID MEASURES**Description of first aid measures****General advice**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Do not rub affected area.

Skin contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Inhalation Remove to fresh air. Call a physician immediately. If not breathing, give artificial respiration.

Ingestion If swallowed, call a poison control center or physician immediately. If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Most important symptoms and effects, both acute and delayed

Symptoms See Section 11: TOXICOLOGICAL INFORMATION.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Carbon dioxide (CO₂). Water spray or fog.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. May cause sensitization in susceptible persons.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions See Section 12: ECOLOGICAL INFORMATION.

Methods and material for containment and cleaning up

Methods for containment Cover powder spill with plastic sheet or tarp to minimize spreading.

Methods for cleaning up Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Do not burn treated wood. Do not use pressure treated chips or sawdust as mulch. Use with local exhaust ventilation. May form combustible dust concentrations in air. Take precautionary measures against static discharges. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Do not breathe dust/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Avoid generation of dust.

Incompatible materials

None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Wood and Wood Dust NOT ASSIGNED	1.0 mg/m ³ Inhalable, 0.5 mg/m ³ Inhalable Western Red Cedar	15 mg/m ³ Total Dust 5.0 mg/m ³ Respirable Fraction	-

Appropriate engineering controls

Engineering Controls

Showers. Eyewash stations. Ventilation: Saw, cut or machine wood outdoors or in well ventilated areas. Due to the explosive potential of dust when suspended in air, precautions should be taken when sawing, sanding, or machining wood or wood products to prevent sparks or other ignition sources. If required, use wet methods and/or explosion suppression systems to reduce generation of dust. Local exhaust ventilation is recommended when sawing, sanding, or machining this product. General dilution ventilation is recommended in processing and storage areas.

Individual protection measures, such as personal protective equipment

Eye/face protection

Use safety glasses with side shields or chemical goggles when sawing or cutting treated or untreated wood.

Skin and body protection

Wear leather gloves. Wear long sleeve shirt, pants, and steel-toed shoes when handling treated or untreated wood.

Respiratory protection

None normally required. When sawing or cutting treated or untreated wood, wear a NIOSH approved N95 or better dust mask.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off all contaminated clothing and wash it before reuse. Avoid contact with skin, eyes or clothing. Wash face, hands and any exposed skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance Color

Solid
No information available
Slightly green

Odor Odor threshold

No information available
No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point		
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	No information available	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Inhalation	WOOD and WOOD DUST :. May cause cancer. May cause sensitization by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Eye contact	WOOD and WOOD DUST :. Irritating to eyes.
Skin contact	WOOD and WOOD DUST :. May cause irritation. May cause allergic skin reaction.
Ingestion	WOOD and WOOD DUST :. Harmful if swallowed.

Note:
RT = Rat
RBT = Rabbit
MSE = Mouse
GP = Guinea Pig
V = Vapour

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chemical Name	ACGIH	IARC	NTP	OSHA
Wood and Wood Dust NOT ASSIGNED	X	Group 1	X	X

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Numerical measures of toxicity - Product Information

ATEmix (oral)
ATEmix (dermal)
ATEmix (inhalation-gas)
ATEmix (inhalation-dust/mist)
ATEmix (inhalation-vapor)

Numerical measures of toxicity

12. ECOLOGICAL INFORMATION

Ecotoxicity

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). Dispose of in accordance with federal, state and local regulations.
Contaminated packaging	No information available.

14. TRANSPORT INFORMATION

DOT	Not regulated
------------	---------------

15. REGULATORY INFORMATION**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Copper Ethanolamine Complex is expressed as Copper

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Copper Ethanolamine Complex 14215-52-2	-	X	-	-

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Copper Ethanolamine Complex 14215-52-2	-	X	-

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Wood and Wood Dust - NOT ASSIGNED	Carcinogen

Warning: This wood contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Dipropylene glycol methyl ether 34590-94-8	X	X	X
Propiconazole 60207-90-1	X	-	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

Issue Date 27-May-2015

Revision Date 09-Dec-2021

Revision Note

No information available

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



Additional Information

Western Wood Preservers Institute : www.wwpi.org

Timber Piling Council : timberpilingcouncil.com

Preserved Wood : wolmanizedwood.com