Conrad Forest Products

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

Chemonite® Uses for Highway

About Chemonite® ACZA. 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. It has been innovated to preserve difficult-to-treat species 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. Nearly 40 years of commercial production, long term field tests and laboratory fungal and termite tests have demonstrated the efficacy and performance of ACZA treated wood.

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.

Highway uses. The strength and resilience of Douglas fir, combined with the long-term protection of Chemonite® ACZA preservative, yield a construction material that has been providing reliable service for decades.

Chemonite® ACZA treated Douglas fir is ideal for

- Guardrail posts (TSO through Conrad)
- Rail blocks
- Highways sign posts
- Highway Retaining walls
- Bridge timbers
- Glulams

Benefits ACZA Preservative.

- Protects against fungal decay and insect attack, even Formosan termite.
- Effectively penetrates most species of wood.
- Long history of successful use.
- Studies indicate resistance to carpenter ants, woodpecker damage, and fire.
- Provides protection at all levels of exposure — above ground, ground contact, freshwater and saltwater.
- May be stored and worked with like untreated wood.
- Recognized by model building codes.
- Leach-resistant.
- Can be painted or stained.
- Borates can be included into the treating solution to increase the protection of wood products.
- Life Cycle Assessments (LCA) confirm environmental attributes.

Chemonite®
ACZA PRESSURE TREATED WOOD

AWPA Retention Requirements

Application	Use Category (PCF)	Preservative Retention (Lbs. per cu. ft.)
Lumber & Timbers		
Lumber and timbers for bridges, structural members, decking, cribbing, & culverts	4C	0.60
Structural Posts & Timbers		
Round, half round, quarter round*	4B	0.50
Sawn	4C	0.60
Posts, Guardrail		
Round	4B	0.50
Sawn	4B	0.60
Glue-Laminated Members, Douglas Fir (treated after gluing)		
Above ground – interior/exterior	1, 2, 3B	0.30
Ground contact & fresh water use	4A, 4B, 4C	0.60

*Doug fir and other western species not recommended for half-round and quarter-round posts.

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 AWPA 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

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 progams 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

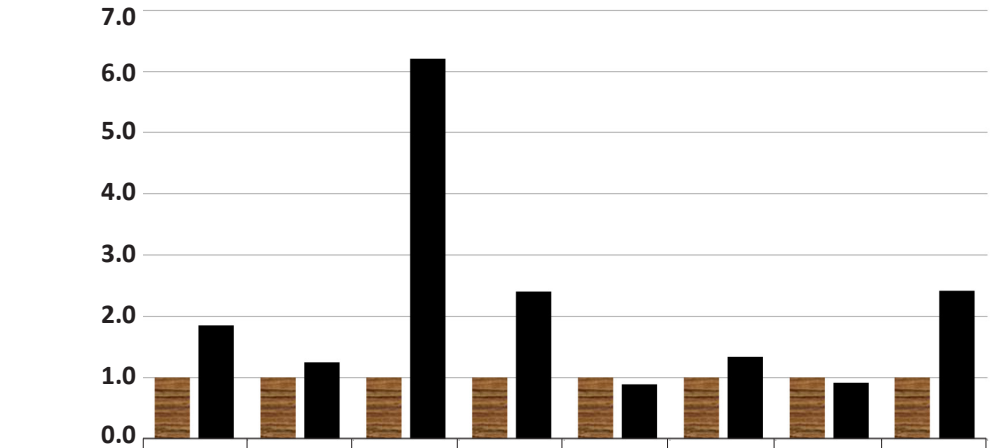
Environmental Life Cycle Assessment of
Highway Guard Rail Posts

The Treated Wood Council has completed a quantitative evaluation of the environmental impacts associated with the national production, use, and disposition of treated wood and galvanized steel highway guard rail posts using life cycle assessment (LCA) methodologies and following ISO 14044 standards. The results for treated wood guard rail posts are significant.

- **Less Energy & Resource Use:** Treated wood highway guard rail posts require less total energy and less fossil fuel than galvanized steel highway guard rail posts.
- **Lower Environmental Impacts:** Treated wood highway guard rail posts have lower environmental impacts than galvanized steel highway guard rail posts in five of six impact indicator categories assessed: anthropogenic greenhouse gas, total greenhouse gas, acid rain, ecotoxicity, and smog-causing emissions.
- **Offsets Fossil Fuel Use:** Reuse of treated wood highway guard rail posts for energy recovery in permitted facilities with appropriate emission controls will further reduce greenhouse gas levels in the atmosphere, while 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 treated wood highway guard rail posts to one (1.0) with galvanized steel highway guard rail post 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.

Figure 1. Normalized impact indicator comparison (treated wood guard rail (GR) posts = 1.0)



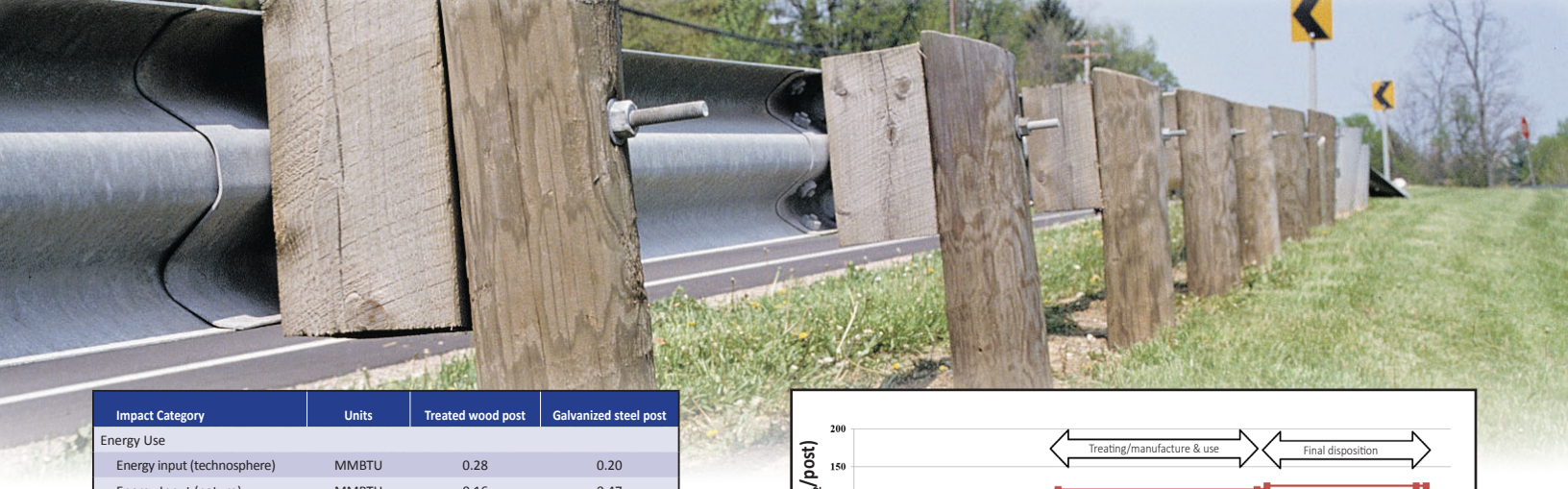
	Fossil Fuel Use	Anthropogenic GHG	Net GHG	Acidification	Water Use	Smog	Eutrophication	Ecotoxitcity
CCA-treated GR posts	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Galvanized steel GR posts	1.8	1.3	6.2	2.4	0.88	1.3	0.92	2.4

Scope

The scope of this study includes:

- A life cycle inventory of two guard rail post types: preservative-treated wood (round and sawn) and galvanized steel. Chromated copper arsenate (CCA) was chosen as a representative preservative for assessment of treated wood highway guard rail posts.
- Calculation and comparison of life cycle impact assessment indicators: anthropogenic greenhouse gas, total 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.

ISO 14044 Compliant Prepared by: AquAeTer, Inc.



Impact Category	Units	Treated wood post	Galvanized steel post
Energy Use			
Energy input (technosphere)	MMBTU	0.28	0.20
Energy Input (nature)	MMBTU	0.16	0.47
Biomass energy	MMBTU	0.10	0.0080
Impact indicators			
Anthropogenic GHG emissions	lb-CO_2-eq	98	123
Total greenhouse gases	lb-CO_2-eq	20	125
Acid rain air emissions	lb-H+ mole-eq	18	44
Smog potential	g NOx/m	0.11	0.15
Ecotoxicity air emissions	lb-2,4-D-eq	0.16	0.40
Eutrophication air emissions	lb-N-eq	0.0067	0.0062
Resource use			
Fossil fuel use	MMBTU	0.33	0.60
Water use	gal	12	11

Table 1. Environmental performance (per post)

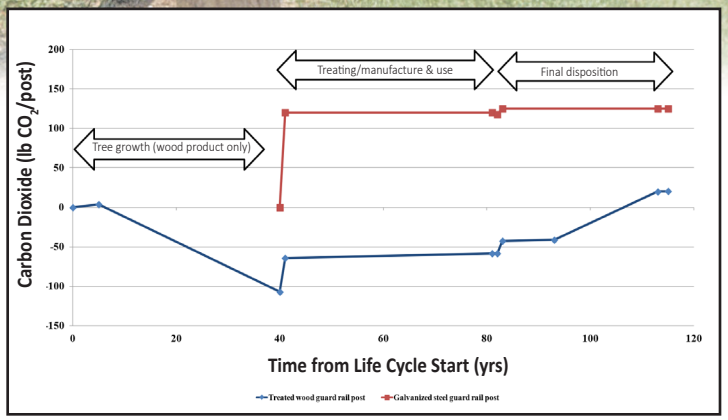


Figure 3. Carbon balance for post products (per post)

Environmental Performance

This LCA study was done in accordance with the principles and guidance provided by the International Organization for Standardization (ISO) in standards ISO/DIS 14040 and ISO/DIS 14044. The LCA procedures and findings were evaluated by a panel of external reviewers in accordance with Section 6 of ISO 14044. The external reviewers confirmed that the LCA followed the ISO standards and that the comparative assertions were done using equivalent functional units and equivalent methodological considerations.

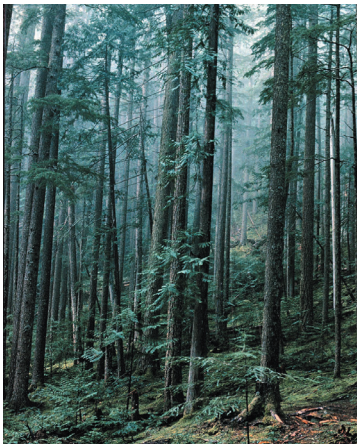
Wood products begin their life cycles removing carbon from the atmosphere (as carbon dioxide) and atmospheric carbon removal continues as trees grow during their approximate 40-year growth cycle, providing an initial life cycle carbon credit. Approximately half the mass of dry wood fiber is carbon. Transportation and treating operations are the primary sources of carbon emissions in the manufacture of treated wood products.

The galvanized steel post begins its life cycle either as a raw material or with the recycling of steel products. Both processes result in carbon emissions. Burdens associated with recycling, including transportation, sorting, cleaning, and melting, must be included in the manufacturing stage.

Minimal impacts are required for both treated wood and galvanized steel in the service life stage. Following the service life stage, wood posts are recycled for secondary uses or disposed in landfills. Galvanized steel guard rail posts are assumed recycled. The carbon balance of highway guard rail posts, through the life cycle stages, is shown in Figure 3.

Quality Criteria

This LCA study was done in accordance with the principles and guidance provided by the International Organization for Standardization (ISO) in standards ISO/DIS 14040 and ISO/DIS 14044. The LCA procedures and findings were evaluated by a panel of external reviewers in accordance with Section 6 of ISO 14044. The external reviewers confirmed that the LCA followed the ISO standards and that the comparative assertions were done using equivalent functional units and equivalent methodological considerations.



Additional Information

This study is further detailed in a Procedures and Findings Report completed October 5, 2011 and is available upon request from the Treated Wood Council at www.treated-wood.org/contactus.html.

This study has been published in the peer-reviewed Journal of Transportation Technologies (Vol. 3 No. 1, January 2013, pp 58-67) and is available at http://www.scirp.org/journal/jtts.

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 AWPA P5.

2.03 PRESERVATIVE TREATMENT

A. Pressure Treatment: In accordance with the requirements of AWPA 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 AWPA 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 AWPA 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
Customers and Licensees of:
Arch Wood Protection, Inc.
3941 Bonsal Road
Conley, GA 30288

Manufacturer Address
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 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 (NOx).

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

Chemonite®
ACZA PRESSURE TREATED WOOD

Additional Information

Western Wood Preservers Institute : www.wwpi.org

Preserved Wood : wolmanizedwood.com

American National Standard Institute : www.ansi.org

American Society for Testing & Materials : www.astm.org

American Wood Protection Association : www.awpa.com

Canadian Standards Association : www.csa.ca