

# Specifications/Statement of Work

**Friends of Brazoria Wildlife Refuges  
P. O. Box 505  
Lake Jackson, TX 77566-0505**

**On behalf of  
United States Department of the Interior  
United States Fish & Wildlife Service  
Texas Mid-coast National Wildlife Refuge Complex  
Brazoria National Wildlife Refuge  
24907 FM 204  
Angleton Texas, 77515  
Telephone 979-922-1037  
Fax 979-964-1539**

## **Demolition and Reconstruction of Bastrop Public Fishing Pier**



**Brazoria National Wildlife Refuge  
24907 FM 2004  
Angleton, TX 77515**

**1.5 Channels for Obtaining Information:** All information passing from the Contractor must be sent through the Refuge Contract Inspector and Friends of Brazoria Refuges- Grant Administrator, Marty Cornell. Coordination is a must to avoid any type of conflicts.

**1.6 Work Hours:** Normal daytime work hours are 0700 to 1600 Monday through Friday excluding Federal Holidays. Schedule changes must be requested by Contractor in writing for approval.

**1.7 Utilities:** No utilities are on site. Contractor shall coordinate proposed storage areas and any use of utilities with the CI before storing and or utilizing any access to closed gates.

**2. Specific Requirements to be performed:**

2.1. Contractor shall provide a fully qualified and competent on-site manager who shall be responsible for the performance of the work. The name of the person and all alternates shall be designated in writing to the Contract Inspector and (CI).

2.2. Contractor Industry Knowledge. The Work described in this Scope of Work is a general description of the work to be performed by Contractor and its subcontractors. Government is relying upon Contractor to possess the necessary knowledge and experience to perform any work in conformance with the intent of the design requirements, even though each and every item described in the request for Work may not be completely defined in every respect. Contractor includes in the performance of the Scope of Work weather delays.

2.3. At all times when any performance of the work at any site is being conducted by any employee of the contractor or his subcontractor, the contractor shall have a representative present at the site who has the capability of receiving instructions in the English language, fluently speaks the English language, and who can explain the work operations to his workers in a language that they are capable of understanding.

2.5 The contractor shall employ Texas state qualified individuals to perform all work associated with this contract.

2.6 The contractor shall provide the following

1. Installation of all building materials and Labor

7.5 Burning of trash and rubbish at the construction site is strictly prohibited.

**8. Inspection/Quality Control:**

The contractor shall coordinate with the Refuge Office or Contract Inspector five days prior to contract completion date to allow scheduling of dates for final inspections. Contractor attendance at the final inspection is mandatory.

**8.1 Quality Control System:**

The contractor shall establish a Quality Control System to perform sufficient inspection of all items of work, including that of his subcontractors, to assure conformance to applicable with respect to the materials, workmanship, construction.

**9. Guarantee:**

The contractor shall warrant all workmanship for one year after final acceptance of contract work. Warranty for materials shall be in accordance with manufacturer's written standard warranty period. Equipment and material, which do not achieve requirements after installation, shall be replaced or modified by the manufacturer to attain compliance, at no additional cost to the Friends of the Brazoria Refuges or government.

**10. Codes and Standards:**

The construction shall comply with all Federal, state and local codes, standards, regulations and ordinances.

**11. Payment of Services:**

Submittal of payment/s for services completed must be made in writing and signed by Refuge Manager- Cody Dingee or Contractor Inspector (CI)- Jim Payne

Payment request must be made to: **Friends of Brazoria Refuge**  
c/o Marty Cornell  
P.O Box 505  
Lake Jackson, Texas 77566

**12. Acceptance of Specifications/Statement of Work**

Contractor: Coastal Construction, 339 CR282, Sargent, TX 77414

Signature: 

Date: 7-5-16

# PROPOSAL

**Coastal Construction**  
339 CR 282  
Sargent, TX 77414  
979-373-6992

PROPOSAL NO.	1439
SHEET NO.	
DATE	June 29, 2016

PROPOSAL SUBMITTED TO:

NAME	Friends of Brazoria National Wildlife Refuges
ADDRESS	P.O. Box 505 Lake Jackson, TX, 77566-0505
PHONE NO.	

WORK TO BE PERFORMED AT:

ADDRESS	Brazoria National Wildlife Refuge 24907 FM 2004, ANGLETON, TX 77515
DATE OF PLANS	(BASTROP BAYOU PUBLIC FISHING PIER)
APPLICANT	305 CR 476 FREEPORT, TEXAS 77541

We hereby propose to furnish the materials and perform the labor necessary for the completion of the demolition and reconstruction of the Bastrop public fishing pier in accordance with signed Specifications /Statement of Work on the Brazoria National Wildlife Refuge at Bastrop Bayou, Brazoria County, Texas.

- The removal of all existing materials, leaving poles/pilings,
- The installation of rough-cut 2" X 12" stringers to poles with 5/8" bolts,
- The installation of rough cut 2" X 8" joists to stringers using wind tie blocking
- The installation of 2" X 6" decking using 3" stainless steel screws,
- The installation of hand rails and two levels to meet ADA requirements.  
Stringers, joists, tie blocking, decking, and hand rails will be CCA-treated wood, as described in attached Material Safety Data Sheet.

All material is guaranteed to be as specified, and the above work to be performed in accordance with the drawings and specifications submitted for above work and completed in a substantial workmanlike manner for the sum of Four two thousand, two hundred forty and 00/100 Dollars (\$ 42,240.00 )

with payments to be made as follows. %50 down payment of \$21,120.00  
25% = \$10,560.00 to be paid after all joists are installed to stringers  
25% = \$10,560.00 to be paid on final inspection of material and services

Respectfully submitted **Coastal Construction**

Any alteration or deviation from above specifications involving extra costs will be executed only upon written order, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control.

Per  7-5-16

Note — This proposal may be withdrawn by us if not accepted within 30 days.

### ACCEPTANCE OF PROPOSAL

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payments will be made as outlined above.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

**Coastal Construction  
339 CR 282  
Sargent, Texas 77414**

Owner Larry Land

**PROPOSAL and CONTRACT**

**TO: Friends of Brazoria National Wildlife Refuge  
P.O. Box 505  
Lake Jackson, Texas 77566-0505**

**Date: 29 June 2016**

**JOB/ WORK LOCATION TO BE PERFORMED AT:**

**Brazoria National Wildlife Refuge**

**24907 FM 2004**

**ANGLETON, TEXAS, 777515**

**WORK LOCATION: (BASTROP BAYOU PUBLIC FISHING PIER)**

**Coastal Construction** hereby propose to furnish all materials and preform the labor necessary for the completion of the demolition and reconstruction of the Bastrop public fishing pier in accordance with signed Specifications/Statement of Work on the Brazoria National Wildlife Refuge at Bastrop Bayou, Brazoria County, Texas.

- **The removal of all existing materials, leaving poles/pilings,**
- **The installation of rough-cut 2" X 12" stringers to poles with 5/8" bolts,**
- **The installation of rough cut 2" X 8" joists to stringers using wind tie blocking,**
- **The installation of 2" X 6" decking using 3" stainless steel screws,**
- **The installation of hand rails and two levels to meet ADA requirements.**

**Stringers, joists, tie blocking, decking, and hand rails will be CCA-treated wood, as described in attached Material Safety Data Sheet.**

All work is guaranteed to be specified, and the above work to performed in accordance with the US FISH AND WILDLIFE SERVICE (STATEMENT OF WORK) signed for the above work and completed in substantial workmanlike manner for the sum of \$42,240.00/ Forty two thousand two hundred and twenty four dollars

**Progress payments to be made: 50 % down payment of \$21,120.00**

**25% = \$10,560.00 to be paid after joist are installed to stringers**

**25%= \$10,560.00 to be paid on final inspection of material and services**

**Note- This proposal may be withdrawn by Coastal Construction if not accepted within 30 days.**

Any alteration or deviation from the above specifications involving extra cost of material or labor will only be executed upon written orders for same, and will become an extra charge over the sum mentioned in this contract. All agreements must be made in writing.

Respectfully submitted by: Coastal Construction per  7-5-16

**ACCEPTANCE OF BID CONTRACT**

You are hereby authorized to furnish all materials and labor required to complete the work mentioned in the above proposal and contract, for which you agree to pay the amount mentioned in said proposal and according to the terms thereof.

Accepted Date \_\_\_\_\_

signature \_\_\_\_\_



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** CCA Treated Wood  
**Other means of identification**  
**SDS number** 92-KPC  
**Recommended use** Preservative Treated Wood for various weather protected and exterior uses.  
**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

**Company Name** Koppers Performance Chemicals Inc.  
**Address** 1016 Everee Inn Rd., Griffin, GA 30224  
**Telephone number** 770-233-4200  
**Contact person** Regulatory Manager, KPC Inc.  
**Emergency Telephone Number** CHEMTREC 1-800-424-9300  
**E-mail** KPCmgrsds@koppers.com

## 2. Hazard(s) identification

**Physical hazards** Not classified.  
**Health hazards** Carcinogenicity (inhalation) Category 1A  
**OSHA defined hazards** Combustible dust  
**Label elements**



**Signal word** Danger  
**Hazard statement** May cause cancer by inhalation. May form combustible dust concentrations in air.

### Precautionary statement

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Wear protective gloves/protective clothing/eye protection/face protection. Prevent dust accumulation to minimize explosion hazard. Observe good industrial hygiene practices.  
**Response** If exposed or concerned: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use water fog, foam, carbon dioxide, dry chemical for extinction. Collect spillage.  
**Storage** Store away from incompatible materials.  
**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)** None known.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	CAS number	%
Arsenic Pentoxide	1303-28-2	<3
Copper Oxide	1317-39-1	<1.5
Trivalent Chromium	1308-38-9	<3.5
Wood	N/A	<85

## Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Components not listed are either non-hazardous or are below reportable limits.

Depending on the additives applied to the treating solution, this wood may also contain <1 % of mold inhibitors, <1% of a non-hazardous oil emulsion, and <% of a colorant.

## 4. First-aid measures

### Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately. Some species may cause allergic respiratory reactions with asthma-like symptoms in sensitized individuals.

### Skin contact

Remove contaminated clothing. Wash skin thoroughly with soap and water for several minutes. Prolonged contact with treated wood and/or treated wood dust, especially when freshly treated at the plant, may cause irritation to the skin. Abrasive handling or rubbing of the treated wood may increase skin irritation. Some wood species, regardless of treatment, may cause dermatitis or allergic skin reactions in sensitized individuals. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.

### Eye contact

Do not rub eye. Immediately flush eye(s) with plenty of water. Remove any contact lenses and open eyelids wide apart. If irritation persists get medical attention.

### Ingestion

Rinse mouth thoroughly if dust is ingested. Get medical attention if any discomfort continues.

### Most important symptoms/effects, acute and delayed

Wood dust: May cause nasal dryness, irritation and mucostasis. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported. Depending on wood species may cause respiratory sensitization and/or irritation. Symptoms can include irritation, redness, scratching of the cornea, and tearing. May cause eczema-like skin disorders (dermatitis). Airborne treated or untreated wood dust may cause nose, throat, or lung irritation and other respiratory effects.

### Indication of immediate medical attention and special treatment needed

If one ounce of treated wood dust per 10 lbs. of body weight are ingested, acute arsenic intoxication is a possibility.

### General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

### Suitable extinguishing media

Water fog. Foam. Carbon dioxide (CO<sub>2</sub>). Dry chemical powder. Apply extinguishing media carefully to avoid creating airborne dust.

### Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

### Specific hazards arising from the chemical

Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. Depending on moisture content, and more importantly, particle diameter and airborne concentration, wood dust in a contained area may explode in the presence of an ignition source. Wood dust may similarly deflagrate (combustion without detonation like an explosion) if ignited in an open or loosely contained area. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the LEL for wood dusts. Reference NFPA Standards- 654 and 664 for guidance. Toxic vapors from wood and preservative may be given off in a fire. Ash will contain free arsenic and chromium and may be toxic.

### Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

### Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

### Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

### General fire hazards

May form combustible dust concentrations in air.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Use only non-sparking tools. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

### Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

### Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

## 7. Handling and storage

### Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Explosion-proof general and local exhaust ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Avoid release to the environment. Do not burn preserved wood. Do not use preserved wood as Mulch. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Keep away from heat, spark, open flames and other sources of ignition. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### U.S. - OSHA

Components	Type	Value	Form
Wood Dust (CAS N/A)	PEL	5 mg/m <sup>3</sup>	Respirable dust.
		15 mg/m <sup>3</sup>	Total fraction.

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Trivalent Chromium (CAS 1308-38-9)	PEL	0.5 mg/m <sup>3</sup>

#### ACGIH

Components	Type	Value	Form
Wood Dust (CAS N/A)	TWA	1 mg/m <sup>3</sup>	Inhalable fraction.

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Arsenic Pentoxide (CAS 1303-28-2)	TWA	0.01 mg/m <sup>3</sup>
Trivalent Chromium (CAS 1308-38-9)	TWA	0.5 mg/m <sup>3</sup>

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Arsenic Pentoxide (CAS 1303-28-2)	Ceiling	0.002 mg/m <sup>3</sup>	



**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
Copper Oxide (CAS 1317-39-1)	TWA	1 mg/m <sup>3</sup>	Dust and mist.
Trivalent Chromium (CAS 1308-38-9)	TWA	0.5 mg/m <sup>3</sup>	
Wood Dust (CAS N/A)	TWA	1 mg/m <sup>3</sup>	Dust.

**Biological limit values**

**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Arsenic Pentoxide (CAS 1303-28-2)	35 µg/l	Inorganic arsenic, plus methylated metabolites, as As	Urine	*

\* - For sampling details, please see the source document.

**Appropriate engineering controls**

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear dust-resistant safety goggles with side shields where there is danger of eye contact.

**Skin protection**

**Hand protection**

When handling wood, wear leather or fabric gloves.

**Other**

Wear suitable protective clothing. Use of an impervious apron is recommended.

**Respiratory protection**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH-approved respirator if there is a potential for exposure to dust exceeding exposure limits (See 29 CFR 1910.134, respiratory protection standard).

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

If wood dust contacts the skin, workers should wash the affected areas with soap and water. Clothing contaminated with wood dust should be removed, and provisions should be made for the safe removal of the chemical from the clothing. Persons laundering the clothes should be informed of the hazardous properties of wood dust. A worker who handles wood dust should thoroughly wash hands, forearms, and face with soap and water before eating, using tobacco products, using toilet facilities, applying cosmetics, or taking medication. Workers should not eat, drink, use tobacco products, apply cosmetics, or take medication in areas where wood dust is handled, or processed.

**9. Physical and chemical properties**

**Appearance**

**Physical state**

Solid.

**Form**

Solid.

**Color**

Yellow/green.

**Odor**

Wood odor.

**Odor threshold**

Not available.

**pH**

Not applicable.

**Melting point/freezing point**

Not available.

**Initial boiling point and boiling range**

Not available.

**Flash point**

Not available.

**Evaporation rate**

Not available.

**Flammability (solid, gas)**

Combustible solid.

#### Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Highly insoluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not applicable.
Other information	
Density	As wood.

### 10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep away from heat, sparks and open flame. Minimize dust generation and accumulation. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Toxic vapors from wood and preservative may be given off in a fire. Ash will contain free arsenic and chromium and may be toxic.

### 11. Toxicological information

#### Information on likely routes of exposure

Inhalation	Wood dust, treated or untreated, is irritating to the nose, throat and lungs. Prolonged or repeated inhalation of wood dusts may cause respiratory irritation, recurrent bronchitis and prolonged colds. Some species may cause allergic respiratory reactions with asthma-like symptoms in sensitized individuals. Prolonged exposure to wood dusts by inhalation has been reported to be associated with nasal and paranasal cancer.
Skin contact	Handling may cause splinters. Prolonged contact with treated wood and/or treated wood dust, especially when freshly treated at the plant, may cause irritation to the skin. Abrasive handling or rubbing of the treated wood may increase skin irritation. Some wood species, regardless of treatment, may cause dermatitis or allergic skin reactions in sensitized individuals.
Eye contact	Dust may irritate the eyes.
Ingestion	Not likely, due to the form of the product. However, ingestion of dusts generated during working operations may cause nausea and vomiting. If one ounce of treated wood dust per 10 lbs. of body weight are ingested, acute arsenic intoxication is a possibility. Certain species of wood and their dusts may contain natural toxins, which can have adverse effects in humans.

Symptoms related to the physical, chemical and toxicological characteristics	Wood dust: May cause nasal dryness, irritation and mucostasis. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported. Depending on wood species may cause respiratory sensitization and/or irritation. Symptoms can include irritation, redness, scratching of the cornea, and tearing. May cause eczema-like skin disorders (dermatitis). Airborne treated or untreated wood dust may cause nose, throat, or lung irritation and other respiratory effects.
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#### Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.
Skin corrosion/irritation	Dust may irritate skin.
Serious eye damage/eye irritation	Dust may irritate the eyes.

## Respiratory or skin sensitization

<b>ACGIH Sensitization</b> Wood (CAS N/A)	Dermal sensitization Respiratory sensitization
<b>Respiratory sensitization</b>	Exposure to wood dusts can result in hypersensitivity.
<b>Skin sensitization</b>	Exposure to wood dust can result in the development of contact dermatitis. The primary irritant dermatitis resulting from skin contact with wood dusts consist of erythema, blistering, and sometimes erosion and secondary infections occur.
<b>Germ cell mutagenicity</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a mutagen by OSHA.
<b>Carcinogenicity</b>	May cause cancer by inhalation. This classification is based on an increased incidence of nasal and paranasal cancers in people exposed to wood dusts.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Arsenic Pentoxide (CAS 1303-28-2)	1 Carcinogenic to humans.
Trivalent Chromium (CAS 1308-38-9)	3 Not classifiable as to carcinogenicity to humans.
Wood (CAS N/A)	1 Carcinogenic to humans.

### NTP Report on Carcinogens

Arsenic Pentoxide (CAS 1303-28-2)	Known To Be Human Carcinogen.
Wood Dust (CAS N/A)	Known To Be Human Carcinogen.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Arsenic Pentoxide (CAS 1303-28-2)	Cancer
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<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not likely, due to the form of the product.
<b>Chronic effects</b>	Chronic exposure to wood dusts can result in pneumonitis, and coughing, wheezing, fever and the other signs and symptoms associated with chronic bronchitis. Individuals with pre-existing disease in or a history of ailments involving the skin, kidney, liver, respiratory tract, eyes, or nervous system are at a greater than normal risk of developing adverse effects from woodworking operations with this product.
<b>Further information</b>	The effects of industrial exposure to the chrome-copper-arsenic preservative used to treat CCA wood has been evaluated in three independent epidemiology studies. In each case the authors concluded that workers exposed on a daily basis to these preservatives were at no increased risk of death or disease as a result of their exposure. Recreational exposure to children using CCA treated wood playground equipment has been evaluated. The results of this study indicate that the amount of arsenic transferred from the wood surface to the child is within the normal variation of total arsenic exposure to children and that the maximum risks of skin cancer associated with the exposure approximates the skin cancer risk from the sunlight experienced during play periods. Leaf, stem, and fruit of grape plants grown adjacent to CCA treated wood poles did not take up preservative components from the poles above background levels (limit of detection 0.2 and 0.05 ppm for chrome and arsenic, respectively).

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	No data available on bioaccumulation.
<b>Mobility in soil</b>	The product is insoluble in water.
<b>Mobility in general</b>	The product is not volatile but may be spread by dust-raising handling.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. DO NOT BURN! Ash may be toxic and a hazardous waste; combustion vapors may be toxic. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

#### US RCRA Hazardous Waste P List: Reference

Arsenic Pentoxide (CAS 1303-28-2) P011

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### DOT

Not regulated as dangerous goods.

#### IATA

Not regulated as dangerous goods.

#### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

### 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are listed on or exempt from the U.S. EPA TSCA Inventory List.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Arsenic Pentoxide (CAS 1303-28-2) Cancer  
Liver  
Skin  
Respiratory irritation  
Nervous system  
Acute toxicity

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Arsenic Pentoxide (CAS 1303-28-2) LISTED  
Copper Oxide (CAS 1317-39-1) LISTED  
Trivalent Chromium (CAS 1308-38-9) LISTED

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard - No  
Delayed Hazard - Yes  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Arsenic Pentoxide	1303-28-2	1		100	10000

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Arsenic Pentoxide	1303-28-2	<3
Copper Oxide	1317-39-1	<1.5
Trivalent Chromium	1308-38-9	<3.5

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Arsenic Pentoxide (CAS 1303-28-2)  
Trivalent Chromium (CAS 1308-38-9)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Arsenic Pentoxide (CAS 1303-28-2)  
Trivalent Chromium (CAS 1308-38-9)

US. New Jersey Worker and Community Right-to-Know Act

Arsenic Pentoxide (CAS 1303-28-2)  
Copper Oxide (CAS 1317-39-1)  
Trivalent Chromium (CAS 1308-38-9)  
Wood Dust (CAS N/A)

US. Pennsylvania Worker and Community Right-to-Know Law

Arsenic Pentoxide (CAS 1303-28-2)  
Trivalent Chromium (CAS 1308-38-9)  
Wood Dust (CAS N/A)

US. Rhode Island RTK

Arsenic Pentoxide (CAS 1303-28-2)  
Copper Oxide (CAS 1317-39-1)  
Trivalent Chromium (CAS 1308-38-9)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Wood Dust (CAS N/A)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	05-April-2015
Revision date	01-June-2015
Version #	02

**Further information**

HMIS® is a registered trade and service mark of the NPCA.  
E - Safety Glasses, Gloves, Dust Respirator

**PERCENTAGE OF HAZARDOUS INGREDIENTS COMPONENT %:**

0.25 pcf  
Arsenic Pentoxide 0.3%, Copper Oxide 0.15%, Chromium Trioxide 0.4%, Wood Dust\* 84.28%  
0.4 pcf  
Arsenic Pentoxide 0.4%, Copper Oxide 0.2%, Chromium Trioxide 0.6%, Wood Dust\* 83.98%  
0.6 pcf  
Arsenic Pentoxide 0.6%, Copper Oxide 0.3%, Chromium Trioxide 0.9%, Wood Dust\* 83.47%  
1.0 pcf  
Arsenic Pentoxide 1.0%, Copper Oxide 0.6%, Chromium Trioxide 1.4%, Wood Dust\* 82.45%  
2.5 pcf  
Arsenic Pentoxide 2.6%, Copper Oxide 1.3%, Chromium Trioxide 3.3%, Wood Dust\* 78.88%

\* This represents the maximum amount of wood dust that could be generated if the wood was completely machined.

The above percentages are based on the applicable retention, a wood density of 32 pcf., and a moisture content of 15%, the above values may vary due to the variability of treatment and the natural variability of wood.

**HMIS® ratings**

Health: 1\*  
Flammability: 1  
Physical hazard: 0  
Personal protection: E

**NFPA ratings**



**Disclaimer**

Koppers Performance Chemicals Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.