



**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. May cause adverse liver effects.  
**Target Organ Effects**  
 Eyes, kidney, liver, lungs, Lymphatic System, Respiratory system, Skin.  
**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 Budu-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/wood mix wood dust as a Group 1 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 exposure 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 31.1 of the GHS document  
 ATE<sub>10h</sub> (oral) mg/kg  
 ATE<sub>10h</sub> (dermal) mg/kg  
 ATE<sub>10h</sub> (inhalation-gas) mg/l  
 ATE<sub>10h</sub> (inhalation-dust/mist) mg/l  
 ATE<sub>10h</sub> (inhalation-vapor) mg/l

**Numerical measures of toxicity**

**12. ECOLOGICAL INFORMATION**

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 (CrO3) 7738-94-5	10 lb	X	-	-
Arsenic Acid 7778-39-4 Captive Oxide 1317-38-0	-	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 (CrO3) 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

**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 (CrO3) - 7738-94-5	Carcinogen Developmental Female Reproductive Male Reproductive
Arsenic Acid - 7778-39-4 Lead - impurity - 7439-92-1	Carcinogen
	Carcinogen Developmental Female Reproductive Male Reproductive

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Chromic Acid (CrO3) 7738-94-5	X	X	X
Arsenic Acid 7778-39-4	X	X	X
Captive Oxide 1317-38-0	X	-	X
Lead - impurity 7439-92-1	X	X	X

U.S. EPA Label Information  
 EPA Pesticide Registration Number N/A

**Ecotoxicity**

Very toxic to aquatic life with long lasting effects

Study Abstracts: A technical paper published in the Forest Products Journal (September, 1974) by Levi, Hulisingh 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 Springtown 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 along 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 one 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.

**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.

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

**NFPA** Health hazards 2 Flammability 1 Instability 0 Physical and Chemical Properties  
**HMS** Health hazards 2 Flammability 1 Physical hazards 0 Personal protection X  
 Issue Date 27-May-2015  
 Revision Date 27-May-2015  
 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

Chemical Name	California Hazardous Waste Status
Chromic Acid (CrO3) 7738-94-5	Toxic Corrosive Irritable
Captive Oxide 1317-38-0	Toxic

**14. TRANSPORT INFORMATION**

**DOT** Not regulated

**IDG** Not regulated

**MEX** Not regulated

**ICAO (air)** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

**RID** Not regulated

**ADR** Not regulated

**ADN** Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory	Does not comply
DSLNDL - Canadian Domestic Substances List/Non-Domestic Substances List	Does not comply
ENECSELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances	Does not comply
ENCS - Japan Existing and New Chemical Substances	Does not comply
IECS - China Inventory of Existing Chemical Substances	Does not comply
KECL - Korean Existing and Evaluated Chemical Substances	Does not comply
PICCS - Philippines Inventory of Chemicals and Chemical Substances	Does not comply
AICS - Australian Inventory of Chemical Substances	Does not comply

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSLNDL - Canadian Domestic Substances List/Non-Domestic Substances List  
 ENECSELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
 ENCS - Japan Existing and New Chemical Substances  
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 KECL - Korean Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 AICS - Australian Inventory of Chemical Substances

**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 (CrO3) - 7738-94-5	0.1
Arsenic Acid - 7778-39-4	0.1

**SARA 311/012 Hazard Categories**