Occupational exposure to wood dust from any timber product has been classified as hazardous according to the criteria of the NOHSC.

SECTION 1: PRODUCT IDENTIFICATION

Product Name:	"Tanalith" CCA treated timber	**CAS #:**	-
Generic Name:	copper chrome arsenate treated timber	**Formula:**	conjugated mixture in wood
Chemical Name:	copper chrome arsenate treated timber	**Hazard Label:**	-
Manufacturer:	Koppers Arch manufacture wood preservatives but do not supply the treated wood products. Wood products treated with Koppers Arch preservatives are supplied by many independent producers throughout Australia and New Zealand. This information is provided in good faith for the users of the treated wood products. However your supplier should confirm that the wood products supplied do contain Koppers Arch preservative and are appropriately described under this MSDS. If in doubt your supplier should provide their own MSDS.		
Fax:	Supplier to provide	**Telephone:**	Supplier to provide
Address:	Supplier to provide	**Emergency:**	Supplier to provide

Appearance and odour:

Treated timber can be light to dark green in colour depending on the surface texture, wood species, moisture content, level of treatment and the time elapsed from when the timber was treated. It may have a resinous wood odour depending on the species, and a slight "metallic" tang.

Uses: "Tanalith" CCA treated timber is timber which has been treated so as to protect the timber from fungal decay and insect attack.

SECTION 2: INGREDIENTS

Ingredient Name	CAS #	%	Exposure Limits NOHSC[1003(1995)]
Commercial and plantation timbers such as radiata pine, slash pine, hoop pine, spotted gum, and blackbutt, treated with "Tanalith" preservative by vacuum/pressure impregnation method. The preservative is present in the finished product as a conjugated and fixed copper/chrome/arsenate complex without specific chemical formulation.	-	100%	not applicable for intact product

Ingredient Name	CAS #	%	Exposure Limits NOHSC[1003(1995)]
Dust from this product contains:			
Wood dust from softwoods and hardwoods	-	>98%	5 mg/m^3 time weighted average (TWA); 10 mg/m^3 short term exposure limit (STEL) for softwood; 1 mg/m^3 TWA for certain hardwoods such as beech and oak; Both softwood and hardwoods are listed as sensitisers
A non-specific copper/chrome/arsenate complex	-	<2%	none allocated
Note: Potential exposures to dust will occur only when power tools or wood working machinery is used on the product such as planing, sawing, drilling or sanding.			

SECTION 3: HAZARD IDENTIFICATION

OVERVIEW

Dust Hazard: Inhalation of excessive amounts of dust may cause temporary upper respiratory irritation and/or congestion; and irritation of the eyes and skin. Exposure to the dust may cause exposure to and absorption of the copper/chrome/arsenate complex. Any potential health effects from this product will be related to dust only, and not from intact product which has been left for 14 days after treatment or otherwise conditioned to allow chemical fixation.

Wood dust may ignite at temperatures greater than 204^{0}C/400^{0}F, and high concentrations-in-air (>60g/m^3) may spontaneously explode.

Fire Hazard: In a fire, toxic gases including arsenic trioxide may be present in the smoke. This product or its waste must never be burnt in open fires, home heaters or used as a fuel for cooking purposes.

Potential Health Effects

Acute (short term) Health Effects:

Swallowed:

Unlikely under normal conditions. Swallowing the dust may cause nausea, abdominal pain and diarrhoea.

Eye:

The dust is irritating to the eyes resulting in redness and watering.

Skin:

Skin contact within 14 days of CCA treatment may result in skin irritation. Wood dust may irritate the skin or cause a contact (allergic) dermatitis in some people.

Inhaled:

Inhalation of dust may be irritating to the nose, throat and lungs.

Chronic (long term) Health Effects:

Repeated inhalation of dust from this product may cause nasal and other respiratory cancers. Some compounds of arsenic are associated with an increased risk of lung cancer. Some chromium compounds have been associated with an increased risk of nasal cancer. Wood dust is associated with an increased risk of nasal cancer. Exposure to wood dust in some susceptible people may result in respiratory and skin sensitisation leading to asthma and dermatitis respectively.

SECTION 4: FIRST-AID MEASURES

Swallowed:

If dust is swallowed, give water to drink. Seek medical attention if any abdominal discomfort. If swallowed by a child and more than 15 minutes from a hospital, induce vomiting if the child is alert and conscious.

Eyes:

Flush thoroughly with water for at least 15 minutes. If irritation persists seek medical attention.

Skin:

Wash thoroughly with mild soap and water. Remove clothing if contaminated with dust.

Inhaled:

Leave the dusty area.

Notes to Physician:

Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

Unusual Fire / Explosion Hazards:

During combustion CCA treated wood or wood wastes may emit toxic vapours (carbon dioxide, arsenic oxides). Ashes may contain free copper, chromium and arsenic residues and may be toxic. Woods dusts may form explosive mixtures with air. Full protective clothing and self-contained breathing apparatus should be worn for fire fighting. Extinguish fire with water, fog, foam, carbon dioxide or dry chemical. Dispose of ash and burnt waste in approved landfill in accordance with local and state regulations. CCA treated timber should not be burnt.

Flammable Properties and Explosive Limits:

Flash Point:	not applicable	**Lower Explosive Limit (LEL):**	not applicable
FP Test Method:	not applicable	**Upper Explosive Limit (UEL):**	not applicable
Flame Classification:	not determined	**Autoignition Temperature:**	265^{o}C typical b/p
Flame Propagation:	not determined	**Decomposition Temperature:**	not applicable

SECTION 6: ACCIDENTAL SPILL/RELEASE MEASURES

Spills and disposal:

Offcuts, general waste material and dust resulting from normal building and construction work are not considered to be a hazardous waste and should be disposed of through normal waste collection services or at approved landfill sites. Industrial re-manufacturing or prefabrication operations generating large volumes of this type of waste (> 1 tonne per month) may require EPA or other authority approval. CCA treated timber **must not be burnt** in open fires, stoves, fireplaces or residential boilers. Burning can not be used as a means of disposal without specific local authority or EPA approval.

SECTION 7: HANDLING AND STORAGE

Storage Handling:

CCA treated timber should be held on the treatment plant premises for a sufficient period or otherwise conditioned to ensure surface dryness and fixation of the preservative. If treated timber is to be used for playground equipment or log cabin construction, a storage period of 4 - 6 weeks is recommended (Australian Standard AS 1924), or use of accelerated drying techniques (kiln drying). Avoid handling or sawing freshly treated wet timber.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Summary:

Keep exposures as low as practicable with the aim of maintaining air borne CCA treated wood dust levels below 1.0 mg/m^3 TWA. All work with CCA treated wood must be carried out in such a way as to minimise exposure to dust.

Eye:

Non-fogging safety goggles or glasses (AS/NZS 1336) should be worn if there is a risk of dust or flying particles getting into the eye such as when using power tools.

Skin:

Wear standard dusty gloves (AS 2161), loose comfortable clothing, and boots. Long-sleeved shirts and long trousers are recommended if skin irritation occurs. Wash skin with mild soap and water after working with CCA treated wood. Wash work clothes regularly and separately from other clothes.

Respiratory:

Avoid breathing dust from CCA treated wood. Wear a P1 or P2 particulate respirator conforming with Australian Standards AS/NZS 1715 and AS/NZS 1716 when exposed to dust. These Standards should be followed in the selection, fit-testing, use, storage and maintenance of the respirators.

Ventilation:

Local exhaust ventilation should be provided at areas of cutting to remove airborne dust. General dilution ventilation should be provided as necessary to keep airborne dust below the applicable exposure limits and guidelines. The need for ventilation systems should be evaluated by a professional industrial hygienist, while the design of specific ventilation systems should be conducted by a professional engineer.

Special Considerations for Repair/Maintenance of Contaminated Equipment:

Use personal protective equipment as discussed above. Where possible, vacuum all equipment before repair/maintenance to remove excessive dust.

Smoking:

Inhalation of airborne particles from other sources in the work environment, including those from cigarette smoke, may increase the risk of lung disease. It is recommended that all storage and work areas should be smoke free zones and other airborne contaminants be kept to a minimum.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (^{o}F/^{o}C):	not applicable
Evaporation Rate (Butyl acetate = 1):	not applicable
Melting Point:	not applicable
pH:	not applicable
Saturation in Air (%):	not applicable
Solids Content:	not applicable
Specific Gravity (Water = 1):	0.4 to 1.1 depending on timber species
Vapor Density (Air = 1):	not applicable
Vapor Pressure:	not applicable
Viscosity:	not applicable
VOCs (g/liter):	not applicable
Volatile by Volume (%):	not applicable
Water Solubility (%):	insoluble

SECTION 10: STABILITY AND REACTIVITY

Reactivity:

This product is not reactive.

Hazardous Decomposition Products:

Thermal-oxidative degradation of this and other wood products produces irritating and toxic smoke and gases. These may include carbon monoxide, aldehydes, carbon particles, arsenic compounds and organic acids.

SECTION 11: TOXICOLOGICAL AND EPIDEMIOLOGICAL DATA

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of the individual ingredients, and those hazards must be assumed to be additive in the absence of complete information. The hazards described in this document have been evaluated based on a threshold of 1.0% for all hazardous ingredients and 0.1% for all carcinogens.

Acute Effects:

The wood dust which may be generated during manual or mechanical cutting, drilling, sanding or other abrading processes may cause temporary irritation of the eyes and upper respiratory system. The symptoms are expected to subside after exposure has stopped and are not expected to cause any long term effects. Allergic skin and lung reactions have been reported with exposure to various wood dusts due to the chemicals presented in wood. These rashes resemble other allergic skin reactions caused by plants and usually heal rapidly.

Toxicity (LD_{50}):

The LD50 and LC50 (dose or concentration lethal at 50% of a population of test animals) for this product have not been determined.

Chronic Effects:

The risk of a rare form of nasal cancer has been associated with wood dust exposure. In the 1960s, studies relating to wood dust exposure in the furniture industry with nasal cancer were first reported in England. The link was confirmed in several other European countries and furniture industries. Studies in the United States furniture industry have shown notably lower risks, or no increased risk. Studies outside of the furniture industry have been conducted in several countries and have not been consistent. In addition, the studies showing a link to nasal cancer have been primarily conducted in industries using hardwood. The International Agency for Research on Cancer (IARC) evaluated dusts from both hardwood and softwood in 1995 and concluded that: "there is sufficient evidence in humans for the carcinogenicity of wood dust. There is inadequate evidence in experimental animals for the carcinogenicity of wood dust. Wood dust is carcinogenic to humans".

Chromium and arsenic are listed in the IARC monographs as human carcinogens. CCA treated timber does not contain the forms of arsenic or chromium primarily implicated in the IARC reviews. Studies of wood workers using CCA treated timbers have not shown increased incidence of cancer or other health problems over wood workers using untreated timbers due to their exposure.

References:

IARC *Monographs on the Evaluation of Carcinogenic Risks to Humans.* Volume 62: Wood dust and formaldehyde. IARC, Lyon, France. 1995.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

This product has not been tested.

SECTION 13: DISPOSAL CONSIDERATIONS

Summary:

This product is not regulated as a hazardous waste by Australian environmental authorities. Local authority guidelines should be followed in the disposal of waste products and dust.

SECTION 14: TRANSPORT INFORMATION

Transportation Summary:

This product is not regulated as a dangerous good. No special transport requirements are necessary.

SECTION 15: REGULATORY INFORMATION

No special State or Commonwealth regulations apply. The product is not listed in the Standard for the Uniform Scheduling of Drugs and Poisons.

Wood dust - (certain hardwoods such as beech and oak), and *Wood dust - softwood* are listed in the 1999 draft NOHSC list of Designated Hazardous Substances: NOHSC: 10005(1999).

SECTION 16: HEALTH & SAFETY INFORMATION TO USERS

Occupational exposure to wood dust from any timber product has been classified as hazardous according to the criteria of the NOHSC.

Risk: CCA treated wood dust is irritating to eyes, skin and respiratory system, and may cause sensitisation by inhalation (asthma) and skin contact (dermatitis). CCA treated wood dust may cause cancer after years of repeated inhalation.

Safety: Avoid repeated or prolonged contact with skin and avoid getting dust in the eyes.
Avoid breathing dust.
Wear suitable protective clothing including eye (AS/NZS 1336) and respiratory (AS/NZS 1715 and 1716) protection if airborne dust generated.
Wash work clothes regularly and separately from other clothes.

First-aid: Irrigate eyes with plenty of water.
Wash skin with soap and water.
Seek medical attention if symptoms persist.

Disposal: Follow above safety instructions, and:
Collect in containers for disposal as trade waste in accordance with local authority guidelines.
Do not dispose of by burning.
DO NOT BURN in barbecues, combustion stoves, or home fires as irritating and toxic gases are emitted.

Fire: Dust may form an explosive mixture in air.
Earth all exhaust equipment and prevent high dust concentrations in confined spaces.
Extinguish with water, CO_2, foam or dry chemical extinguishers. Firefighters must wear breathing apparatus.

Additional information is listed in the Material Safety Data Sheet for this product
Koppers Arch Pty Limited
15 Blue Street, North Sydney NSW 2060, Australia

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SECTION 17: OTHER INFORMATION and CONTACT POINT

See your wood products supplier for manufacturers' details.
Koppers Arch manufacture wood preservatives but do not supply the treated wood products. Wood products treated with Koppers Arch preservatives are supplied by many independent producers throughout Australia and New Zealand. This information is provided in good faith for the users of the treated wood products. However your supplier should confirm that the wood products supplied do contain Koppers Arch preservative and are appropriately described under this MSDS. If in doubt your supplier should provide their own MSDS.

Further information may be obtained from:

Technical Manager
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Station Street, Trentham VIC 3458

Tel: 03 5424 1350 Fax: 03 5424 1288.

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