

# OSMOSE NATUREWOOD - ACQ TREATED TIMBER

ChemWatch Material Safety Data Sheet  
Issue Date: Thu 11-Sep-2003

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## IDENTIFICATION

### STATEMENT OF HAZARDOUS NATURE

Not classified as hazardous according to Worksafe Australia criteria.

### SUPPLIER

Company:  
Osmose Australia P/L  
Address:  
Cafrpirco Road ABN: 75 088 260 575  
Mt Gambier  
SA, 5290  
AUS  
Telephone: (+61 8) 8723 1399  
Emergency Tel: 1800 039 008 (24 hours)  
Emergency Tel: +61 3 9573 3112  
Fax: (+61 8) 8723 0010

### SYNONYMS

### SHIPPING NAME

NONE

Product Name: Osmose Naturewood - ACQ Treated Timber

Other Names:  
8/01

CAS RN No(s):	None	None
UN Number:	None	
Packing Group:	None	
Dangerous Goods Class:	None	
Subsidiary Risk:	None	
Hazchem Code:	None	
Poisons Schedule Number:	None	

### USE

Used for outdoor applications in garden furniture, fencing, pergolas and decking, particularly where below ground borer and rot resistant timber is required.  
Sawing and sanding produces dust which contains preservative chemicals.

### PHYSICAL DESCRIPTION/PROPERTIES

#### APPEARANCE

Green or brown coloured dressed and natural timber, sections, logs, poles and posts which are dry and aged for 4 to 6 weeks after vacuum/pressure impregnation with ammoniacal copper quaternary (ACQ) liquid treatment to protect timber from fungi and insects. The ACQ solution is fixed by chemical reaction which changes the water-soluble ACQ material into an insoluble preservative in the treated timber.  
The product weathers to various shades of brown-grey over several years.

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## IDENTIFICATION ...

Boiling Point (°C):	Not applicable.
Melting Point (°C):	Not applicable.
Vapour Pressure (kPa):	Not applicable
Specific Gravity:	Not available
Flash Point (°C):	Not applicable
Lower Explosive Limit (%):	Not available.
Upper Explosive Limit (%):	Not available.
Solubility in Water (g/L):	Insoluble.

## INGREDIENTS

NAME	CAS RN	%
softwood		> 97
impregnation residuals, as		
copper	7440-50-8	0.1-1.0
didecyldimethylammonium chloride	7173-51-5	0.1-1.0
In use, may generate		
wood dust	Not avail.	
No other ingredient information disclosed.		

## HEALTH HAZARD

### ACUTE HEALTH EFFECTS

#### SWALLOWED

Overexposure is unlikely in this form and quantity.  
Considered an unlikely route of entry in commercial/industrial environments

#### EYE

The dust may produce eye discomfort and abrasive eye inflammation.

#### SKIN

The material may be.  
mildly.  
discomforting.  
to the skin.  
and is capable of causing.  
skin reactions.  
which may lead to dermatitis

#### INHALED

Not normally a hazard due to non-volatile nature of product.  
Inhalation hazard is increased at higher temperatures.

### CHRONIC HEALTH EFFECTS

Principal routes of exposure are by skin contact, inhalation of machining dust and exposure to volatile copper compounds when treated timber is burnt. Treated timber for childrens playground equipment or for

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## HEALTH HAZARD ...

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use in log cabins, should before use be:

(a) Aged 4 to 6 weeks to "fix" treatment chemicals and thoroughly dry timber;  
and (b) washed well with water to remove soluble salts.

This as recommended by Australian Standard AS 1924. Failure to observe above may result in timber wet with treatment chemicals being handled, with considerably increased hazard, particularly from dust if timber is sawn or sanded. It is believed that no absorption of ACQ into the skin will occur after the fixation period.

ACQ-treated timber has a long history of safe use with human and stock exposure, provided reasonable occupational hygiene is observed.

Treated timber must NOT be used for cooking over open fires, barbecues, spit roasts.

## FIRST AID

### SWALLOWED

If ACQ treated dust is swallowed, give water to drink. Seek medical attention if any abdominal discomfort occurs.

### EYE

If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- If pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

### SKIN

Remove all contaminated clothing, including footwear. Wash thoroughly all affected areas with water and soap.

### INHALED

- If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear breathing passages.
- If irritation or discomfort persists seek medical attention.
- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor, without delay.

## ADVICE TO DOCTOR

Treat symptomatically.

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## PRECAUTIONS FOR USE

### EXPOSURE STANDARDS

No data for Osmose Naturewood - ACQ Treated Timber.

#### EXPOSURE STANDARDS FOR MIXTURE

"Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration:

Composite Exposure Standard for Mixture (TWA) :1.4651 mg/m<sup>3</sup>.  
Operations which produce a spray/mist or fume/dust, introduce particulates to the breathing zone.

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

Component	Breathing Zone ppm	Breathing Zone mg/m <sup>3</sup>	Mixture Conc (%)
copper	0.6977	1	0
wood dust	0.0698	0	1
didecyldimethylammonium chloride	0.6977	1	0

#### INGREDIENT DATA

##### COPPER:

TLV TWA: 1 mg/m<sup>3</sup> Dusts and mists as Cu [ACGIH]

TLV TWA: 0.2 mg/m<sup>3</sup> Fume [ACGIH]

PEL TWA: 1 mg/m<sup>3</sup> [OSHA Z1]

copper dusts and mists, as Cu (A.Wt: 63.54)

ES TWA: 1 mg/m<sup>3</sup>

TLV TWA: 1 mg/m<sup>3</sup>

OES TWA: 1 mg/m<sup>3</sup>; STEL: 2 mg/m<sup>3</sup>

copper fume, as Cu

ES-TWA: 0.2 mg/m<sup>3</sup>

TLV-TWA: 0.2 mg/m<sup>3</sup>

OES-TWA: 0.2 mg/m<sup>3</sup>

IDLH Level: 100 mg/m<sup>3</sup> (fume)

##### DIDECYLDIMETHYLAMMONIUM CHLORIDE:

TLV TWA: 10 mg/m<sup>3</sup> (Value for particulate matter containing no asbestos and <1% crystalline silica, Inhalable fraction) [ACGIH]

TLV TWA: 3 mg/m<sup>3</sup> (Value for particulate matter containing no asbestos and <1% crystalline silica, Respirable fraction) [ACGIH]

Dusts not otherwise classified, as inspirable dust;

ES TWA: 10 mg/m<sup>3</sup>.

Particulate (insoluble or poorly soluble \*) Not .Otherwise Specified (P.N.O.C)

TLV TWA: 10 mg/m<sup>3</sup> Inhalable particulate

TLV TWA: 3 mg/m<sup>3</sup> Respirable particulate

OEL-Sweden, United Kingdom: 10 mg/m<sup>3</sup> total dust, 5 mg/m<sup>3</sup> respirable dust

These "dusts" have little adverse effect on the lungs and do not produce toxic effects or organic disease. Although there is no dust which does not evoke some cellular response at sufficiently high concentrations, the cellular response caused by P.N.O.C.s has the following characteristics:

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## PRECAUTIONS FOR USE ...

- the architecture of the air spaces remain intact,
  - scar tissue (collagen) is not synthesised to any degree,
  - tissue reaction is potentially reversible.
- Extensive concentrations of P.N.O.C.s may:
- seriously reduce visibility,
  - cause unpleasant deposits in the eyes, ears and nasal passages,
  - contribute to skin or mucous membrane injury by chemical or mechanical action, per se, or by the rigorous skin cleansing procedures necessary for their removal. [ACGIH]

This limit does not apply:

- to brief exposures to higher concentrations
- nor does it apply to those substances that may cause physiological impairment at lower concentrations but for which a TLV has as yet to be determined.

This exposure standard applies to particles which

- are insoluble or poorly soluble\* in water (or, preferably, in aqueous lung fluid (if data is available) and
- have a low toxicity (i.e.. are not cytotoxic, genotoxic, or otherwise chemically reactive with lung tissue, and do not emit ionizing radiation, cause immune sensitization, or cause toxic effects other than by inflammation or by a mechanism of lung overload)

\* Notice of intended change

## WOOD DUST:

certain hard woods as beech & oak:

TLV TWA: 1 mg/m<sup>3</sup> A1

WARNING: This substance has been classified by the ACGIH as A1 CONFIRMED HUMAN CARCINOGEN

ES TWA: 1 mg/m<sup>3</sup> (Sensitiser) (Under review)

soft wood:

TLV TWA: 5 mg/m<sup>3</sup>; STEL: 10 mg/m<sup>3</sup>

ES TWA: 5 mg/m<sup>3</sup>; STEL: 10 mg/m<sup>3</sup> (Sensitiser) (Under review)

Wood dusts produce dermatitis and an increased risk of upper respiratory disease. Epidemiological studies in furniture workers show an increased risk of lung, tongue, pharynx and nasal cancer. An excess risk of leukaemia amongst millwrights probably is associated with exposure to various components used in wood preservation.

Impairment of nasal mucociliary function may occur below 5 mg/m<sup>3</sup> and may be important in the development of nasal adenocarcinoma amongst furniture workers exposed to hardwoods.

Certain exotic hardwoods contain alkaloids which may produce headache, anorexia, nausea, bradycardia and dyspnoea.

The softwood TLV-TWA reflects the apparent low risk for upper respiratory tract involvement amongst workers in the building industry. A separate TLV-TWA, for hard woods, is based on impaired nasal mucociliary function reported to contribute to nasal adenocarcinoma and related hyperplasia found in furniture workers.

TRK: 2 mg/m<sup>3</sup>

(measured as inhalable fraction of the aerosol).

The technical exposure limit, TRK (Technische Richtkonzentrationen), defines the airborne concentration of named carcinogenic materials which is the minimum possible given the state of current technologies. TRK values are assigned only for materials for which there is no current MAK (German exposure standard).

Observance of the TRK value is intended to reduce the risk of adverse effects on

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## PRECAUTIONS FOR USE ...

health but does NOT completely eliminate it. Since no threshold doses can be determined for carcinogens, health considerations require that the exposure limits be kept as far as possible below the TRK and that the TRK value be gradually reduced. The limitation of exposure peaks is regulated as follows;  
Short-term exposure limit: 5 x TRK  
Short-term exposure duration: 15 min/average  
Frequency per work shift: 5 times  
Interval: 1 hour  
Report No. 35 1999, Deutsche Forschungsgemeinschaft.

## ENGINEERING CONTROLS

Avoid generating and breathing dust. Effective dust extraction and good ventilation is required when using cutting, shaping or sanding tools. Wear a disposable dust mask AS 1715 (1991) class P1 or P2 when machining. Avoid sawing or sanding of timber that is wet (not dry) with treatment chemicals.

## PERSONAL PROTECTION

### EYE

When sawing, machining or sanding use safety glasses with side shields. Contact lenses pose a special hazard; soft lenses absorb irritants and all lenses concentrate them.

### HANDS/FEET

Impervious gloves.  
Safety footwear

### OTHER

Overalls.  
Barrier cream.  
Eyewash unit.

### RESPIRATOR

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half-face Respirator	Full-Face Respirator
1000	10	-AUS P	-
1000	50	-	-AUS P
5000	50	Airline *	-
5000	100	-	-2 P
10000	100	-	-3 P
	100+		Airline**

\* - Continuous Flow \*\* - Continuous-flow or positive pressure demand

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## PRECAUTIONS FOR USE ...

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The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

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## SAFE HANDLING

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### STORAGE AND TRANSPORT

#### SUITABLE CONTAINER

Not applicable

#### STORAGE INCOMPATIBILITY

None known

#### STORAGE REQUIREMENTS

- Keep dry.
  - Store under cover.
  - Store in a well ventilated area.
  - Store away from sources of heat or ignition.
  - Observe manufacturer's storing and handling recommendations.
- No smoking, naked lights or ignition sources.

#### TRANSPORTATION

No restrictions.

### SPILLS AND DISPOSAL

#### MINOR SPILLS

Refer to major spills.

#### MAJOR SPILLS

- Minor hazard.
- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear physical protective gloves e.g. Leather.
- Contain spill/secure load if safe to do so.
- Bundle/collect recoverable product and label for recycling.
- Collect remaining product and place in appropriate containers for disposal.
- Clean up/sweep up area.
- Water may be required.

#### DISPOSAL

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

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## SAFE HANDLING ...

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### FIRE FIGHTERS' REPORT

#### EXTINGUISHING MEDIA

Water spray or fog.  
Foam.  
Dry chemical powder.  
BCF (where regulations permit).  
Carbon dioxide.

#### FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

#### FIRE/EXPLOSION HAZARD

Combustible.  
Moderate fire hazard when exposed to heat or flame.  
Avoid creating dust - may present dust explosion hazard. Dry dust can be electrostatically charged by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport. Build-up of electrostatic charge may be prevented by grounding.  
On combustion, emits toxic fumes of.  
carbon monoxide (CO).  
carbon dioxide (CO<sub>2</sub>).  
and.  
copper

#### FIRE INCOMPATIBILITY

Avoid reaction with oxidising agents

#### HAZCHEM

None

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## CONTACT POINT

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COMPANY CONTACT  
1800 039 008 (24 hours)

AUSTRALIAN POISONS INFORMATION CENTRE  
24 HOUR SERVICE: 13 11 26  
POLICE, FIRE BRIGADE OR AMBULANCE: 000

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## CONTACT POINT ...

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NEW ZEALAND POISONS INFORMATION CENTRE  
24 HOUR SERVICE: 0800 764 766  
NZ EMERGENCY SERVICES:111

End of Report

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