

CHH H2 (TERMITE) TREATED LVL, PLYWOOD AND I JOIST

Chemwatch Material Safety Data Sheet

Issue Date: 26-Jun-2007

NC317ECP

CHEMWATCH 4729-41

Version No:7

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

CHH H2 (TERMITE) TREATED LVL, PLYWOOD AND I JOIST

PRODUCT USE

Used in residential, commercial, and industrial construction, and/or general purpose building material.

SUPPLIER

Company: Carter Holt Harvey (CHH) Wood Products

Address:

PO Box 425

Box Hill

VIC, 3128

AUS

Telephone: +61 3 9258 7600

Fax: +61 3 9258 7629

Company: Carter Holt Harvey (CHH) Wood Products

Address:

Private Bag 92106

Manukau

Auckland,

NZL

Telephone: +64 9 262 6000

Fax: +64 9 261 0501

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

POISONS SCHEDULE

None

RISK

None under normal operating conditions.

SAFETY

None under normal operating conditions.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
wood veneer		>90
phenol/ formaldehyde polymer sodium salt insecticide, as bifenthrin	40798-65-0	<10
	82657-04-3	<0.015
In use, may generate wood dust softwood		Not avail.

THIS REPORT IS FOR TREATED PRODUCT ONLY

Section 4 - FIRST AID MEASURES

SWALLOWED

Hazard relates to dust released by sawing, cutting, sanding, trimming or other finishing operations.

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

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Section 4 - FIRST AID MEASURES

EYE

Hazard relates to dust released by sawing, cutting, sanding, trimming or other finishing operations.

If this product comes in contact with eyes:

- Wash out immediately with water.
- If irritation continues, seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

Brush off dust.

In the event of abrasion or irritation of the skin seek medical attention.

INHALED

- If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear passage of breathing.
- If irritation or discomfort persists seek medical attention.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

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.

Use water delivered as a fine spray to control the fire and cool adjacent area.

Wear breathing apparatus plus protective gloves.

Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

Combustible. Will burn if ignited.

- Wood products do not normally constitute an explosion hazard.
- Mechanical or abrasive activities which produce wood dust, as a by-product, may present a severe explosion hazard if a dust cloud contacts an ignition source.
- Hot humid conditions may result in spontaneous combustion of accumulated wood dust.
- Partially burned or scorched wood dust can explode if dispersed in air.
- Wet dusts may ignite spontaneously.
- Solid fuels, such as wood, when subjected to a sufficient heat flux, will degrade, gasify and release vapours. There is little or no oxidation involved in this gasification process and thus it is endothermic. This process is referred to as forced pyrolysis but is sometimes referred to, wrongly, as smoldering combustion. This type of combustion, once initiated, can continue in a low-oxygen environment, even when the fire is in a closed compartment with low oxygen content.
- An airborne concentration of 40 grams of dust per cubic meter of air is frequently used as the lower explosive limit (L.E.L) of wood dusts.
- Thermal oxidative decomposition may produce vapours and gases including carbon monoxide, aldehydes (including formaldehyde), organic acids, cyanides, polycyclic aromatics, and other volatile organic fragments.

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Section 5 - FIRE FIGHTING MEASURES

FIRE INCOMPATIBILITY

Avoid exposure to excessive heat and fire.

HAZCHEM: None

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

Pick up.

Refer to major spills.

MAJOR SPILLS

Pick up.

Secure load if safe to do so.

Bundle/collect recoverable product.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

Use gloves when handling product to avoid splinters.

SUITABLE CONTAINER

Not applicable.

STORAGE INCOMPATIBILITY

Keep dry.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry area protected from environmental extremes.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations
- Consider storage in banded areas - ensure storage areas are isolated from sources of community water (including stormwater, ground water, lakes and streams).
- Ensure that accidental discharge to air or water is the subject of a contingency disaster management plan; this may require consultation with local authorities.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA mg/m ³	STEL mg/m ³
Australia Exposure Standards	phenol/ formaldehyde polymer sodium salt (Inspirable dust (not otherwise classified))	10	
Australia Exposure Standards	bifenthrin (Inspirable dust (not otherwise classified))	10	

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Source	Material	TWA mg/m ³	STEL mg/m ³
Australia Exposure Standards	wood dust softwood (Wood dust (soft wood))	5	10

MATERIAL DATA

Not available. Refer to individual constituents.

INGREDIENT DATA

BIFENTHRIN:

PHENOL/ FORMALDEHYDE POLYMER SODIUM SALT:

WOOD DUST SOFTWOOD:

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/m³ 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.

PERSONAL PROTECTION

EYE

When sawing, machining or sanding use

- Safety glasses with side shields.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET

Protective gloves eg. Leather gloves or gloves with Leather facing.

Safety footwear.

OTHER

No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- Barrier cream.
- Eyewash unit.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

Hazard relates to dust released by sawing, cutting, sanding, trimming or other finishing operations.

General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Pressed boards ranging in thickness from 30mm to 90mm. These boards are ripped into strips between 35 and 600mm wide to form lineal wood components. Bifenthrin treatment is applied during manufacture and the product is coated yellow for easy identification.

THIS CHEMWATCH REPORT IS FOR TREATED PRODUCT ONLY.

PHYSICAL PROPERTIES

Does not mix with water.

Floats on water.

Molecular Weight: Not Applicable

Melting Range (°C): Not Applicable

Solubility in water (g/L): Immiscible

pH (1% solution): Not Applicable

Volatile Component (%vol): Not Applicable

Relative Vapour Density (air=1): Not

Applicable

Lower Explosive Limit (%): Not Available

Autoignition Temp (°C): >200

State: Manufactured

Boiling Range (°C): Not Applicable

Specific Gravity (water =1): 0.5- 1.0

pH (as supplied): Not Applicable

Vapour Pressure (kPa): Not Applicable

Evaporation Rate: Not Applicable

Flash Point (°C): Not Applicable

Upper Explosive Limit (%): Not Available

Decomposition Temp (°C): Not Available

Viscosity: Not Applicable

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

Product is considered stable and hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Not normally a hazard due to physical form of product.

Considered an unlikely route of entry in commercial/industrial environments.

Ingestion of sawdust may cause nausea, abdominal pain, vomiting or diarrhoea.

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Section 11 - TOXICOLOGICAL INFORMATION

EYE

The dust may produce eye discomfort causing smarting, pain and redness.

SKIN

The dust is discomforting and mildly abrasive to the skin and may cause drying of the skin, which may lead to contact dermatitis.

INHALED

Not normally a hazard due to physical form of product.
Generated dust may be discomforting.

CHRONIC HEALTH EFFECTS

Hazard relates to dust released by sawing, cutting, sanding, trimming or other finishing operations.

Various woods are able to induce allergies, both of the immediate onset type in woodwork which causes a respiratory syndrome, and of the delayed type which results in eczema from exposure to dusts and direct contact. Cross-reaction is common. Certain alkaloids are contained in some species, causing headache, anorexia, slow heart rate and breathing difficulties. Conjunctivitis is also possible. Allergic reactions are aggravated by fungi and bacteria associated with wood. Cancers of the respiratory tract seem to be more common in those professions associated with the use of wood. This seems to be true for both hardwood and soft wood.

Wood dust may cause skin and respiratory sensitisation.

TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

PHENOL/ FORMALDEHYDE POLYMER SODIUM SALT:

No data of toxicological significance identified in literature search.

BIFENTHRIN:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (rat) LD50: 54.5 mg/kg

Dermal (rabbit) LD50: >2000 mg/kg

Oral (quail) LD50: 1800 mg/kg

Oral (duck) LD50: >4450 mg/kg

NOEL (dogs) 1.5 mg/day/1y *

ADI 0.02 mg/kg *

Non-teratogenic in rats (< 2 mg/kg/day) and rabbits (8 mg/kg/day)*

No skin sensitisation (guinea pigs) *

IRRITATION

Skin (rabbit): non- Irritant *

Eye (rabbit): non- Irritant *

WOOD DUST SOFTWOOD:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

No data of toxicological significance identified in literature search.

WARNING: Inhalation of wood dust by workers in the furniture and cabinet making industry has been related to nasal cancer [I.L.O. Encyclopedia]

Use control measures to limit all exposures.

WARNING: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS.

MATERIAL

CARCINOGEN

REPROTOXIN

SENSITISER

SKIN

wood dust
softwood

AUOEL

SENSITISER

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Section 11 - TOXICOLOGICAL INFORMATION

AUOEL: Australia Exposure Standards - Sensitisers: wood dust softwood

Section 12 - ECOLOGICAL INFORMATION

Although treated, the solid wood will decay on ground contact.
Refer to data for ingredients, which follows:

BIFENTHRIN:

The material is classified as an ecotoxin* because the Fish LC50 (96 hours) is less than or equal to 0.1 mg/l

* Classification of Substances as Ecotoxic (Dangerous to the Environment)

Appendix 8, Table 1

Compiler's Guide for the Preparation of International Chemical Safety Cards: 1993
Commission of the European Communities.

Toxicity Fish: LC50(96)0.64-0.87mg/L

Bifenthrin is insoluble in water 0.00001% and binds strongly to soils and hence does not leach readily.

Koc = 1.3×100000 (very strong soil binding)

Synthetic pyrethroids are examples of optimised insecticidal activity, selectivity and tailored environmental persistence. Through modifications of both acid and alcohol portions of the ester, compounds of desired residual activity have been synthesised whilst maintaining a biodegradable ester linkage. These compounds are generally very toxic to crustaceans and fish in laboratory bio assays. Under field conditions, however, the residues are tightly bound in sediment, and ingested residues are readily metabolised. Their toxicity in natural systems are generally less than laboratory test data might indicate. They are generally non-persistent in the environment.

Pyrethrins are generally unstable in the presence of light, are hydrolysed rapidly under alkaline conditions and oxidise rapidly in air. Vapour phase pyrethrins may combine chemically with ozone to produce hydroxy radicals. Pyrethroids where the isobutenyl group attached to the cyclopropane moiety has been altered are more stable to sunlight than the early pyrethroids like allethrin or resmethrin. For this reason, pyrethroids such as permethrin, deltamethrin, cyhalothrin, cyfluthrin, and cypermethrin are more frequently applied

outdoors to crops in comparison to the rapidly degraded pyrethroids like resmethrin and allethrin.

Because agricultural dose rates are low and biological degradation is generally rapid, residues are unlikely to attain significant levels. Permethrin disappears from ponds and streams within 6-24 hours, pond sediments within 7 days and foliage and forest soil within 58 days. Since pyrethrins and pyrethroids undergo photolysis in the atmosphere, they are also degraded by this mechanism in sunlit surface waters. Photosensitising agents found in natural waters such as fulvic and humic acids increase the rate of photolysis. Pyrethroids and pyrethrins also undergo hydrolysis in the environment at varying rates depending upon pH and temperature. Generally, hydrolysis is only an important environmental fate process under alkaline conditions and at temperatures of 20 deg. C or greater.

Pyrethroids are highly toxic to fish; the bioaccumulation factor of cypermethrin in fish is approximately 1000 when measured experimentally, although the potential for significant toxicity is not reached in fields. Under aerobic conditions in soil, permethrin degrades in a relatively short time (half-life 28 days).

Based on the vapor pressure of the pyrethrins and pyrethroids, these compounds are expected to exist in both vapor and particulate phases in the ambient atmosphere. Vapor phase pyrethrins and pyrethroids are rapidly degraded in the atmosphere by direct photolysis and reaction with oxidants found in air such as photochemically-produced hydroxyl radicals, ozone, and nitrate radicals. Particulate phase compounds are slower to degrade, however, and can travel long distances before being removed from the air by wet and dry deposition.

Pyrethrins and pyrethroids are strongly adsorbed to soil surfaces and are not considered

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Section 12 - ECOLOGICAL INFORMATION

very mobile. A wide range of Koc values has been reported by different authors, but most of these values indicate a high degree of adsorption and little leaching potential. Since light is attenuated as a function of depth from the soil surface, photolysis of pyrethrins and pyrethroids is only an important environmental fate process at the surface of the soil.

Volatilisation from water and soil is expected to occur slowly for many of the pyrethroids since these compounds generally have low vapor pressures and Henry's law constants. When released to water, partitioning to suspended solids and sediment occurs rapidly. These compounds adsorb strongly to suspended solids and sediment in the water column, and this process significantly attenuates volatilisation. Volatilisation losses from foliage may be considerably greater than volatilisation from soils because pyrethrins and pyrethroids do not adsorb as strongly to the leafy component of vegetation as to soils. Pyrethrins and pyrethroids are often used indoors in sprays or aerosol bombs, and the volatilization rates from glass or floor surfaces may be significantly faster than from soils since these compounds are not likely to adsorb as strongly to these surfaces.

Little data exist regarding the uptake and transport of pyrethrins and pyrethroids by plant material. Since

many of these compounds are rapidly degraded in the environment, this transport mechanism may not be

an important environmental fate process other than the initial settling of these compounds on the canopy

following deposition. The aerial surface of a plant, including foliage, is covered by a cuticle, which

serves as a barrier to water loss and to prevent penetration of applied chemicals or environmental pollutants. Once deposited on the surface, a chemical may be degraded, bind to the cuticle, or diffuse into the plant through the stomata. Since pyrethrins and pyrethroids adsorb strongly to soils, their uptake from roots and transport within plants is expected to be limited.

The general population is exposed to pyrethrins and pyrethroids primarily from food sources, especially fruits and vegetables. The tendency of young children to ingest soil, either intentionally through pica or unintentionally through hand-to-mouth activity, is well documented. These behavioral traits can result in ingestion of pyrethrins and pyrethroids present in soil and dust. Since these compounds are adsorbed strongly to soils, they may not be in a highly bioavailable form. Young children often play on the ground or on carpets and this will increase the likelihood of dermal exposure and inhalation of contaminated particles from soil, household dust and treated surfaces.

Drinking Water Standards:

pesticide 0.1 ug/l (UK max.).

Section 13 - DISPOSAL CONSIDERATIONS

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

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM: None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS:UN, IATA, IMDG

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Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: None

REGULATIONS

CHH H2 (Termite) Treated LVL, Plywood And I Joist (CAS: None):

No regulations applicable

phenol/ formaldehyde polymer sodium salt (CAS: 40798-65-0) is found on the following regulatory lists;

Australia Exposure Standards

Australia Inventory of Chemical Substances (AICS)

bifenthrin (CAS: 82657-04-3) is found on the following regulatory lists;

Australia Exposure Standards

Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6

Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 7

bifenthrin (CAS: 92880-79-0) is found on the following regulatory lists;

Australia Exposure Standards

No data available for wood dust softwood as CAS: Not avail.

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name

CAS

bifenthrin

82657- 04- 3, 92880- 79- 0

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references.

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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