

MATERIAL SAFETY DATA SHEET

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Date of Issue: July 2004
MSDS No. FMC/BTT/2

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **SOLID TIMBER - Bistar (Bifenthrin) Surface Treated**

Use: Solid timber treated with Bistar Timber Insecticide for protection from subterranean termite and borer attack. The treated timber is suitable for use in H1 and H2 interior building and structural applications in above ground situations. This Material Safety Data Sheet applies to the timber treated with Bistar and which is prepared by spraying timber with the appropriate amount of Bistar solution. A separate MSDS is available on Bistar Timber Insecticide from FMC (Chemicals) Pty Ltd. Contact details for FMC are provided in section 16 of this MSDS.

Company: FMC (Chemicals) Pty Ltd produces timber preservative insecticides, but does not supply the treated timber products. Such treated timber products are available from many independent suppliers/mills. Your timber supplier should confirm that the timber products provided have been treated with Bistar Timber Insecticide.

Address: {Insert name & address of treated timber supplier}

Telephone Number:

Fax Number:

Emergency Telephone Number:

SECTION 2 HAZARDS IDENTIFICATION

**Not Classified as hazardous according to criteria of NOHSC
Not classified as a Dangerous Good according to the ADG Code for Road & Rail**

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

CHEMICAL	CAS NUMBER	PROPORTION (% w/w)
Solid timber	-	> 99%
Bifenthrin	82657-04-3	< 0.005%
Residual natural timber oils	-	<10%

SECTION 4 FIRST AID MEASURES

FIRST AID

Swallowed: Unlikely route of exposure. If swallowed, do not induce vomiting. Give a glass of water. If any discomfort persists seek medical advice.

Eye: If dust in eyes, hold eyes open, flood with water. If discomfort persists, see a doctor.

Skin: If dust on skin wash with plenty of soap and water. Remove contaminated clothing. If irritation occurs and persists, see a doctor.

Inhaled: Remove patient from dusty area. If breathing discomfort occurs, obtain medical attention.

Advice to Doctors: The low level of bifenthrin in the timber does not add any additional health hazards. Treat symptomatically for wood dust exposure.

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SECTION 5 | FIRE FIGHTING MEASURES

Specific Hazard: Not flammable under normal conditions of use, but timber is combustible and will help sustain a fire.

Extinguishing media: Water, foam, CO₂ or dry chemical.

Hazards from combustion products: On burning, timber will emit toxic fumes, such as carbon dioxide and carbon monoxide. The very low concentration of bifenthrin in burning timber (less than 0.005%) will not contribute any additional hazard.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind. Wear suitable protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapours generated by burning timber.

SECTION 6 | ACCIDENTAL RELEASE MEASURES

Emergency procedures:

SMALL SPILLS – Wood Dust.

Wear protective equipment to prevent skin and eye contamination from wood dust. Avoid inhalation of dust. Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS – Wood Dust

Wear protective equipment to prevent skin and eye contamination from wood dust and the inhalation of dust. Work up wind or increase ventilation. Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal.

Material and methods for containment and cleanup procedures:

Offcuts and general waste material should be placed in containers and disposed of at approved landfill in accordance with local authority guidelines. Do not use as cooking or BBQ fuel. Burning of wood waste may be done in industrial incinerators, open fires and other situations away from occupied areas, foodstuffs or animals in accordance with local authority guidelines.

Do NOT allow timber or wood dust to enter sewers, drains, dams, creeks or any other waterways.

SECTION 7 | HANDLING AND STORAGE

Precautions for Safe Handling: Avoid eye contact and inhalation of dust. Avoid breathing dust when sanding, sawing or drilling.

Conditions for Safe Storage: Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat or ignition.

SECTION 8 | EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards:

No exposure standard for bifenthrin has been established by NOHSC Australia. The following exposure standards have been established for wood dusts and natural oils:

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	TWA		STEL		Carcinogen category	Notices
	ppm	mg/m ³	ppm	mg/m ³		
Wood dust (certain hardwoods such as beech & oak)	-	1	-	-	-	Sen
Wood dust (soft wood)	-	5	-	10	-	Sen
Natural oils	-	100	-	-	-	-

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour work day.

'Sen' notice - sensitiser. The wood dust can cause a specific immune response in some people. An affected individual may subsequently react to exposure to minute levels of that substance.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Ensure ventilation is adequate and that air concentrations of dust & oil components are controlled below quoted Exposure Standards. In wood working environments, avoid generating and inhaling dusts. Use with local exhaust ventilation or while wearing dust mask.

Personal Protective equipment (PPE):

For handling timber that is wet immediately after treatment, available information suggests that gloves made from natural rubber or polyvinyl chloride (PVC) should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. For handling dry treated timber, available information suggests that gloves made from soft cotton or leather should be suitable to protect from splinters and/or cuts.

Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. If risk of inhalation of dust exists, wear dust mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Sawn timber appearance - timber treated with Bistar does not change appearance from untreated timber, unless dyes have been added by timber treater. Timber may have a slight sweet smell which dissipates soon after treatment.
Boiling point:	Not applicable
Freezing point:	Not applicable
Density:	450 - 650 kg/m ³ (dependent on timber species and moisture content)
pH:	Not applicable
Solubility in Water:	Timber is highly insoluble
Flashpoint (°C) :	Not applicable
Auto-ignition temperature:	> 220°C
Flammability Limits:	Not flammable under normal conditions of use
Poisons Schedule:	Not a scheduled poison.

SECTION 10 STABILITY AND REACTIVITY

Stability: Bifenthrin in the treated timber is stable. Bifenthrin is insoluble in water and tightly bound to organic matter such as wood.

SECTION 11 TOXICOLOGICAL INFORMATION

Potential Health Effects:

No adverse health effects expected if treated timber is handled in accordance with this Safety Data Sheet. Bifenthrin is present at a very low concentration in treated timber (0.005%). Information on bifenthrin leaching rates and wipes tests from treated timber confirm that bifenthrin is tightly bound to wood and only extremely low amounts are detachable from treated timber once dry (0.006% of applied dose). Symptoms or effects that may arise if treated timber is mishandled and overexposure occurs are:

Acute Effects

Inhalation: Wood dust may cause breathing difficulties. May irritate the mucous membranes of the upper respiratory tract. Some wood dusts are respiratory sensitizers that can cause possible allergic reactions.

Skin contact: Wood dust - contact with skin may result in irritation. In sensitive individuals bifenthrin may produce skin irritation which is likely to be transient.

Eye contact: Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

Ingestion: Unlikely to be a significant route of exposure. Swallowing wood dust may result in nausea, vomiting, diarrhoea, abdominal pain and irritation of the gastrointestinal tract.

Long Term (Chronic) Effects:

Bistar: Long term studies on bifenthrin, the active ingredient of Bistar Timber Insecticide, showed that it was non carcinogenic and that it did not cause reproductive toxicology or teratogenicity.

Timber: Repeated inhalation of dust from timber may increase the risk of nasal cavity cancer. Exposure to wood dust in some susceptible people may result in respiratory and skin sensitisation leading to asthma and dermatitis respectively.

Wood dust may aggravate asthma, eye infections or affect wearing of contact lenses. Exposure to airborne wood dust over long periods of time has been associated with the development of nasal cancer. Once the treatment is dry, wood working and wood dust are not expected to be routes of overexposure to the active constituents or the solvent. In general, studies of timber workers using treated timbers have not shown increased risks of cancer or other health problems in comparison to timber workers using untreated timber. However, if exposure to airborne dusts are kept low, no acute or chronic health effects are anticipated.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Information: No specific data is available on bifenthrin treated timber. Timber is regarded as biodegradable and its rate of degradation is dependent on species and environmental factors. The presence of bifenthrin in timber will slow the degradation of timber by insects, but will not affect the degradation by mould and fungus. Data is also available on the active constituent, bifenthrin. Information on bifenthrin leaching rates and wipes tests from treated timber confirm that bifenthrin is tightly bound to wood and presents an extremely low risk to the environment.

Environmental Toxicology: Bifenthrin is only slightly toxic to both waterfowl and upland game birds (LC_{50} values range from 1800 mg/kg to $> 2,150$ mg/kg. Bifenthrin is highly toxic to fish and aquatic arthropods with LC_{50} values ranging from 0.0038 μ g/L to 17.8 μ g/L. In general, the aquatic arthropods are the most sensitive species. Bifenthrin had no effect on molluscs at its limit of water solubility. Bifenthrin treated timber is not likely to cause exposure of bifenthrin to aquatic organisms due to the low concentration in timber, the extremely low water solubility of bifenthrin and its high binding coefficient.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal: Dispose of treated wood waste in a normal landfill in accordance with Local and State regulations. Do not use as cooking or BBQ fuel. Burning of wood waste may be done in industrial incinerators, open fires and other situations away from occupied areas, foodstuffs or animals in accordance with local authority regulations.

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SECTION 14 | TRANSPORT INFORMATION

Transport: Treated timber is not classified as a Dangerous Good under the Australian Code for the Transport of dangerous Goods by Road & Rail.

SECTION 15 | REGULATORY INFORMATION

Not classified as a hazardous substance according to criteria of NOHSC Australia. Under the Standard for Uniform Scheduling of Drugs and Poisons (SUSDP No. 18), not a scheduled poison. Not classified as a Dangerous Good according to the ADG Code (6th Ed).

SECTION 16 | OTHER INFORMATION

FMC (Chemicals) Pty Ltd produces timber preservative insecticides, but does not supply the treated timber products. Such treated timber products are available from many independent suppliers/mills. 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 Bistar Timber Insecticide and are appropriately described under this MSDS. If in doubt, your supplier should provide their own MSDS. A separate MSDS is available on Bistar Timber Insecticide from FMC (Chemicals) Pty Ltd. Contact details for FMC are provided below.

FMC (Chemicals) Pty Ltd
Unit 6, 9 Archimedes Place, MURARRIE QLD 4172
PO Box 526, CANNON HILL QLD 4170
Phone: 07 3908 9222
Fax: 07 3908 9221

References:

- Suppliers Material Safety Data Sheet – Bistar Timber Insecticide July 2003
- Exposure Standards for Atmospheric Contaminants in the Occupational Environment, Worksafe Australia, May 1995
- List of Designated Hazardous Substances [NOHSC:10005 (1995)]
- Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]
- Australian Dangerous Goods Code, 6th Edition. 1998
- Standard for the Uniform Scheduling of Drugs & Poisons. No 18. 2004

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.