

Material Safety with Timber and Wood Products

Always use and work with Tasmanian Timbers safely. Timber and timber products have to be handled and machined safely on building sites and in workshops. The two main safety considerations are:

- The control of wood dust; and
- Handling species or products with known toxicological effects.

Control of wood dust

Many hazards are associated with wood dust production. Wood dust can cause a range of skin, eye, lung and other ailments and complaints.

All work with timber should be carried out in such a way as to minimise the generation of dust. Generally, all sawdust needs to be collected at the point of generation.

Machining should be done with equipment fitted with exhaust extraction. Hand power tools should be fitted with dust bags and used in well-ventilated areas. A vacuum cleaner with a HEPA filter or wet mop should be used to clean work areas. A dry sweeping method should not be used.

Specific species or products effects

The dust of some species and products may be poisonous or carcinogenic. The table below provides a list of potential timber hazards.

Many tropical timbers are spalted (i.e. black lines are present within the timber). These black lines are caused by fungus. Any timber with fungal spores will grow fungus in a bag. When this timber is worked (by hand or machine) the dust may be toxic.

Apart from the effects of the wood itself, risks posed by the use of chemicals in wood treatment, preservation and finishing should be considered. The National code of practice for the safe handling of timber preservatives and treated timber provides detailed guidance and can be downloaded from www.nohsc.gov.au.

Medium and high-density fibreboards (MDF) are made using up to 13% formaldehyde resin. Formaldehyde is classified as a probable human carcinogen and may be released during machining. The softwood dust from this product is a sensitiser and may cause allergic dermatitis or asthma. Respiratory protection as specified on the Material Safety Data Sheet (MSDS) for fibreboard must be worn when machining. The risk of nasal or paranasal sinus cancers is increased if the work practices noted in the MSDS are not followed. Material Safety Data Sheet (MSDS) for fibreboard can be downloaded from www.woodpanels.org.au





General Precautions

- Avoid using wood with known toxicological properties.
- Reduce dust to a minimum by collecting it at the source of generation.
- Ensure that dust extraction units are functioning properly.
- Hand power tools should be fitted to mobile dust extractions units. Dust bags may still release fine wood particles into the work place.
- Where dust is a problem, wear eye protection and an efficient respirator and ensure that there is adequate ventilation.
- Always wear protective clothing, including shirts with long sleeves and high collars, long trousers, shoes or boots.
- Avoid using any chemically treated timber, or non-commercial timber, unless all precautions have been taken regarding personal safety and then handle with great care.
- Use barrier creams (silicone-free and fatty) before, during and after work.
- Always wash hands prior to going to the toilet since some wood dust may irritate the genitals and anus.
- Always wash hands prior to eating.
- Ensure that all wounds are clean and well covered before work.
- Clean the workshop machines and tools regularly to prevent dust build-up.
- Suspect that a health problem may be related to your workshop if the symptoms improve during holidays or absences from the workshop.

Timber / Hazard	Effect	Symptom
Boxwood Sap or latex	Primary skin irritant, dermatitis	Skin irritation, eruption
Timbers usually with acrid smell, eg Black Bean	Cumulative contact dermatitis	Dermatitis, secondary infection
Oregon and green Jarrah handling and splinters	Mechanical trauma, dermatitis	Dermatitis, secondary infection
Blackwood, Eucalyptus, Silky Oak, Jarrah, Oregon, Mulga, and Shorea sap	Mucosal irritation	Rhinitis, sneezing, asthma, tight chest and coughing
Blackwood, Stringy-bark	Pulmonary allergic and hypersensitivity reactions	Nasal inflammation, bronchial asthma
Ebony and some fungi	Pulmonary allergic and hypersensitivity reactions. 'Wood Trimmers Disease' or 'Farmer Disease'.	Severe respiratory problems within 4 to 8 hours. Symptoms similar to flu. Repeated exposure leads to fibrosis of lungs.
Certain hardwoods such as Beech and English Oak are sensitisers	Sensitisation can cause allergic reactions	Skin rash or inflammation. Nasal inflammation, bronchial asthma
Western Red Cedar wood dust is a sensitiser and probable carcinogen	Pulmonary allergic and hypersensitivity reactions. Nasal and paranasal cancer (with long term exposure)	Skin rash or inflammation. Nasal inflammation, bronchial asthma. Cancer from long term exposure may cause death
Oleander sap and latex is poisonous	Primary skin irritant, dermatitis	Skin irritation, eruption, poisoning

notes:

References: Materials, Design and Technology (MDT) Safety Guide, Tasmanian Department of Education, November 2002

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TFPB 2006 V4 ©