



Timber and Wood Based Products

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MATERIAL SAFETY DATA SHEET

Solid Timber

Solid timber is not in itself a hazardous substance. Contact with wood therefore does not create any health risk under normal use, although some timbers may cause skin irritation or dermatitis to sensitised individuals.

A simple 'risk assessment' should be carried out before solid timber is handled. Normally, the conclusion will be that the risk of a hazard to health is 'negligible'.

However, there are occupational hygiene standards for exposure to dusts derived from the processing of timber, and these are outlined below.

Hardwood Dust

This is given a Maximum Exposure Limit (MEL) and a OES (Occupational Exposure Standard) in the COSHH Regulations which should not, in normal circumstances, be exceeded. It is given as a weight of material per cubic metre of air, time weighted over a reference period of 8 hours.

Hardwood dust is also defined as a carcinogen within the Regulations.

The COSHH Regulations impose a duty on employers to take all reasonable precautions and to exercise all due diligence to ensure that exposure is kept as far below the MEL/OES as is reasonably practicable.

The limit is 5mg/m³ based on an 8-hour TWA (Time weighted average).

Softwood Dust

Softwood dust has also been assigned a MEL/OES in the 1996 amendment to the COSHH Regulations. The MEL/OES has been set the same as Hardwood dust at 5mg/m³ based on an 8 hour TWA. The duties as above apply.

Note: Timber users should be aware that if timber is worked so as to produce dust, and that dust is present in concentrations above the levels laid down, it will constitute a hazardous substance.

Treated Timber

Timber treated with a chemical preservative has to remain in storage for a specified period before delivery, to allow solvents to evaporate and the chemicals to become fixed in the timber. Excess chemicals on the surface should be removed by washing down and/or brushing. Provided this practice has been properly followed, then treated timber also should present no hazard in itself. If the timber is not completely dry, then gloves should be worn and the preservative manufacturers' guidance followed.

Customers purchasing treated timber will be informed that the wood has been treated with a certain chemical process, and, if required, a hazard data sheet on that chemical can be supplied. This will only be required if substantial re-working of treated material is carried out, and this is not normal practice as the majority of cutting etc. should be completed prior to treatment.

Joinery Components

Most joinery or trim components treated or otherwise, should not require hazard data sheets under most circumstances of use.

Wood Based Sheet Materials

The risks associated with wood based sheet materials, such as plywood, chipboard, MDF etc are largely the same as for solid timber. Dust produced during cutting operations and present in the air at levels above the concentrations laid down will constitute a hazardous substance.

The MEL of 5mg/m³ should be used as per Hardwood and Softwood dust.

The only possible and occasional hazard from supplies of sheet materials may be a tendency to give off small quantities of formaldehyde vapour when new. This can arise from the adhesive used in manufacture of the boards. The MEL/OES for formaldehyde (2 parts per million) is rarely likely to be exceeded from most boards in normal use and processing. However, purchasers should be aware that some formaldehyde emissions may occur, and that sensitive people may sometimes be affected. In extreme cases, follow-up action, e.g. monitoring will be required, and more information can then be obtained from the manufacturer or supplier of the board.

Note: The Health and Safety Executive are presently researching further information on the potential hazards of processing MDF and, until further guidance is issued, the above exposure limits apply.

It should be remembered that the vast majority of all board materials based on wood are not hazardous, when used properly and sensibly.

Glue Laminated Timber

The risks associated with glue-laminated timber are largely the same as with solid timber and wood-based sheet materials. During manufacture or if substantial re-working is required, the MEL of 5mg/m³ should be adhered to. The actual risk associated with small amounts of cross cutting of beams or columns can be described as negligible.

As with sheet materials, a very small amount of formaldehyde may be emitted during crosscutting or manufacture but this is unlikely to exceed the MEL of 2 ppm.

Waste

The main hazard is fine particles or dust since these can be inhaled. Therefore, ways of reducing this route should be sought, particularly if additional chemicals such as preservatives or glues containing formaldehyde are present. The previously indicated MEL/OES should be used.

Dustless cleaning and handling should be a priority; however, in some circumstances, respiratory protection and personal protection may have to be used.

Alternative Processes

Traditional methods of shaping, cutting or forming of timber have been used for many years and the risks are known. New machines are often accompanied by built-in dust extraction devices (local exhaust ventilation, LEV), which deal with the major risk of inhalation of dust. These should be inspected and maintained as per Regulations. When measurement is necessary so as to be sure that LEV is working correctly and the MEL (Maximum Exposure Limit) and OES (Occupational Exposure Standard) is not being exceeded.

New methods of cutting, involving such devices as lasers, are now being introduced. These do not tend to produce dust, but fumes. At present there is little known about the toxic hazards of such fumes, and careful discussions with the equipment supplier should take place where these machines or processes are used.

March 2002