Safety Bulletin 125

Wood Dust

It is well known in the world of construction that wood dust causes asthma, with workers in industries of carpentry and joiners being 4 times more likely to get asthma that the rest of workers in the UK. Further to this, the inhaling and exhaling of hardwood dust (particularly through the nose) can cause cancer.

Both Hardwood and softwood dusts have a Workplace Exposure Limit (WEL) of 5mg/m3 which must not be exceeded. WELs are limits on concentrations of dust in the air, averaged over 8 hours. But because wood dust is an asthmagen, exposure must be reduced as low as is reasonably practicable.

Key controls for wood dust

- ✓ Dust Control:
- ✓ Provide dust extraction (also known as local exhaust ventilation or LEV) at woodworking machines to remove dust before it can be breathed in.
- ✓ Keep the extraction and collection system maintained to make sure it continues to work efficiently. It is a legal requirement to have dust extraction equipment examined by a competent person at least every 14 months, (Your insurers or LEV suppliers may have competent persons who can do this for you.)
- ✓ Use a vacuum system to clear up the wood dust – either a free standing vacuum cleaner or preferably a vacuum pipe attached to your extraction system. Vacuum cleaners should be suitable and have a HEPA filter.

Don’t use airlines or dry sweeping to clear dust away**:**

X Using airlines and dry sweeping of wood dust can cause high peaks of exposure and simply spread the dust around.

Carry out health checks:

Because wood dust cause asthma, you need to make sure that any health affects are picked up early. This can be done by using health surveillance.
For most woods, a low level of health surveillance is sufficient. This consists of a questionnaire administered before anyone starts work where they are exposed to wood dust, and then repeated annually. These questionnaires also provide information on what to do if you think someone has been affected.
A higher level of health surveillance, including lung function testing, is need for exposures to western red cedar which is a known asthmagen.

What should I do about sensitised employees?

If Health Surveillance makes you suspect an employee has become sensitised you should:

- Remove the individual from working with the sensitiser and advise them to consult a doctor giving information on the work they do and the substances they may have been breathing in.
- Review your COSHH assessment and existing control measures and make any necessary changes.

What do my employees need to know?

You have a legal duty to inform, instruct and train individuals who are likely to be exposed to respiratory sensitisers so that they know and understand:

- The risks to their Health
- The symptoms of sensitisation
- The importance of reporting even seemingly minor symptoms at an early stage.
- The proper use of control measures.
- The need to report promptly any failures in control measures.

What are respiratory sensitisers?

A respiratory sensitiser is a substance which when breathed in can trigger an irreversible allergic reaction in the respiratory system. Once this sensitisation reaction has taken place, further exposure to this substance, even the tiniest trace, will produce symptoms.

Sensitisation does not usually take place right away. It generally happens after several months or even years of breathing the substance in.

What are the symptoms of respiratory sensitisation?

- Asthma – attacks of coughing, wheezing and chest tightness.
- Rhinitis and conjunctivitis – runny of stuffy nose and watery or prickly eyes.

How soon will the symptoms occur?

Once a person is sentitised, symptoms can occur either immediately they are exposed to the sensitiser or several hours later. If the symptoms are delayed, they are often most severe in the evenings or during the night, so workers may not realise it is work causing the problem.

What are the effects of continued exposure?

Once a person is sensitised, continued exposure can result in permanent damage to their lungs and increasingly severe symptoms. People with rhinitis may go on to develop asthma. Asthma attacks are likely to become worse and can be triggered by other things such as tobacco smoke, general air pollution or even cold air. These attacks often continue for years after exposure to the sensitiser has stopped.

What are my legal duties?

Respiratory sensitisers are subject to the Control of Substances Hazardous to Health Regulations (COSHH).

How do I assess the risks?

COSHH requires you to carry out an assessment of the risks created by work which are likely to expose your employees to respiratory sensitisers.

First, find out whether there is an activity or process in your workplace which uses or creates respiratory sensitisers.

If there is, then ask the following questions:

- Is the sensitiser likely to become airborne in use?
- Are there safer alternatives?
- Who is likely to be exposed, to what concentrations, for how long and how often?

How do I prevent or control exposure?

COSHH requires you to prevent or adequately control exposure. To do this you will need to think about how you can:

- Stop using the sensitiser altogether perhaps by replacing it with a less harmful substance

  Of if this is not reasonably practicable

- Segregate work that may impose a risk, or totally enclose the process

  Or if this is not reasonably practicable

- Partially enclose the process and provide local exhaust ventilation

If after carrying out the above you still have not achieved adequate control you will also need to use respiratory protective equipment (RPE).

If you require any further information, clarification or assistance with the above, then please do not hesitate to contact us:

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Source – The Health and Safety Executive

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