

## NEU Guidance for Members, Reps and Local Officers

**Dust can be a major problem in workplaces, including schools. This briefing outlines the problems that can be caused, particularly by wood dust, and sets out what employers need to do to protect staff.**

Wood dust consists of tiny particles of wood produced during the processing and handling of wood, chipboard, hardboard, MDF and other composite boards.

The elimination or control of risks from wood dust is required by:

- The Health and Safety at Work etc Act 1974;
- The Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR); and
- The Control of Substances Hazardous to Health (COSHH) Regulations 2002.

In a school or college environment, the information in this briefing is relevant to those involved in woodworking as part of the national curriculum for design and technology.

### **What are the Hazards?**

The following health problems are among the effects associated with exposure to wood dust;

- Skin disorders
- Obstruction in the nose and rhinitis
- Asthma (on which the NEU has produced a health and safety briefing Asthma in Schools), available at <https://neu.org.uk/>
- Cancer, in certain cases

## **HEALTH AND SAFETY PRECAUTIONS**

### **Slipping and Tripping**

Wood dust on the floor of a workshop or CDT classroom can cause tripping or slipping. See the NEU's health and safety briefing Slips, Trips and Falls at <https://neu.org.uk/>.

### **Exposure**

Regulation 6(1) of the COSHH Regulations requires an assessment to be made (and recorded) of risks to health associated with wood dust, together with any action needed to prevent or control those risks.

Regulation 7(1) goes on to say that exposure to wood dust should be prevented, or where this is not reasonably practicable, adequately controlled.

## **Workplace Exposure Limits**

Hardwood dust and softwood dust have been assigned workplace exposure limits. (WELs) of 5mg/m<sup>3</sup> (8 hour time weighted average) under the COSHH Regulations. Exposure by inhalation to wood dust should, therefore, be reduced so far as is reasonably practicable and in any case below the WEL.

## **Precautions**

The risk to health from exposure to dust can be assessed by;

- finding out if exposure is being adequately controlled. A dust lamp can be used to show up the dust and its source.
- where necessary, carrying out dust sampling and determining whether teachers and pupils will be exposed to dust levels in excess of the WEL.

## **Control Measures**

1. Local exhaust ventilation equipment can be provided to stop dust entering the classroom or workshop;
2. All equipment should be properly maintained. Ventilation ducts should be regularly cleaned to prevent blockages and filter units should be maintained to an adequate standard.
3. Personal protective equipment should be provided such as goggles, dust masks, overalls and gloves where necessary.
4. Workshops should be regularly cleaned to keep the area free of dust and wood chippings – damp sprayed before cleared up. Vacuum cleaners should have filters.
5. Washing facilities should be provided with hot and cold water, towels and soap.

## **Medium Density Fibreboard**

MDF contains woodchip, sawdust and other similar wood waste and is typically composed of 98% softwood and 2% hardwood. The material is bound together with a formaldehyde resin, although formaldehyde-free MDF is also available.

The HSE advises that the health effects of MDF dust are similar to those of ordinary wood dust. There is evidence, however, that formaldehyde has a carcinogenic effect in animals. MDF has a workplace exposure limit of 5mg/m<sup>3</sup>. An HSE survey monitoring exposure to formaldehyde during machining of MDF found levels to be substantially below the maximum exposure limit which operated at that time. Since this study (in the 1990s), the amount of formaldehyde used in resin in MDF has been reduced. According to the HSE, therefore, effective control of MDF dust, combined with good natural ventilation, should provide adequate control for any formaldehyde vapour in that dust.

## **Safety Representatives Checklist**

1. Ensure that a risk assessment is undertaken and regularly reviewed.
2. Ensure control measures are in place such as:

- Provision of ventilation equipment
- Personal protective equipment provided
- Regular and thorough cleaning of workshops
- Washing facilities provided

## **BACKGROUND INFORMATION**

TUC Guidance – ‘Dust in the Workplace – Guidance for Health and Safety Representatives’ available at <http://www.tuc.org.uk/workplace/tuc-19974-f0.pdf>

HSE information sheet: Wood dust: hazards and precautions at <http://www.hse.gov.uk/pubns/wis1.pdf>

NEU health and safety briefing Asthma in Schools, available at <https://neu.org.uk/>.

NEU health and safety briefing Asbestos in Schools, available at <https://neu.org.uk/>.

NEU health and safety briefing Slips, Trips and Falls, available at <https://neu.org.uk/>.

### **Design and Technology Association**

- Risk Assessment in Secondary School Design and Technology
- Safety in Technology : Food and Textiles

<https://www.data.org.uk/>

### **CLEAPSS School Science Service**

- CLEAPSS Laboratory Handbook, updated 1995
- Hazcards
- CLEAPSS Bulletin

<http://www.cleapss.org.uk/>

### **Association for Science Education**

- Safeguards in the School Laboratory, 10th edition, 1996
- Safety in Science for Primary Schools, materials for in-service training, 1998

<http://www.ase.org.uk/home/>