

# Wood Dust – It's Not Just a Nuisance



The wood dust created by cutting, shaping, and sanding wood is certainly a nuisance. However, wood dust can be a serious hazard to both health and safety if not properly controlled.

Respiratory effects are the primary health concern. Inhalation of excessive dust can cause nasal irritation and bleeding, inflammation of the sinuses, wheezing, prolonged colds, and decreased lung function. Some species of wood are sensitizers: after repeated exposure, one can become allergic to the dust. This frequently leads to the development of asthma. Western red cedar is a well-known sensitizer and asthmagen.

Skin and eye effects are also possible. Repeated contact with wood dust can lead to dermatitis, an inflammation of the skin. Symptoms can include redness, itching, and cracking. The dermatitis can be the result of irritation, or it can be an allergic reaction. Wood dust can also cause eye irritation.

Wood dust is a known human carcinogen. Occupational exposure to wood dust can cause cancer of the sinuses and nasal cavities. This risk, however, may be limited to certain species of wood such as oak, beech, birch, mahogany, teak, and walnut.

Cal/OSHA has permissible exposure limits (PELs) that regulate the amount of wood dust workers are allowed to breathe. The American Conference of Governmental Industrial Hygienists (ACGIH) has established more protective exposure limits for wood dust. Although they are not regulatory requirements, the ACGIH limits, called threshold limit values (TLVs), should be followed whenever possible.

Engineering controls, such as local exhaust ventilation (LEV), must be used to prevent overexposures if feasible. LEV systems, however, must be properly designed to prevent potential fire and explosion hazards.

Respirators can be used when engineering controls are not feasible or do not adequately control the dust. A Respiratory Protection Program must be implemented if respirators are needed.

Proper housekeeping is important. Wood dust on floors can cause slips and falls, and the accumulation of wood dust on surfaces presents a serious fire hazard. But using compressed air to blow down surfaces reintroduces the dust into the air, creating potential health and fire hazards. Vacuuming up the dust is the preferred method for cleanup. To prevent fire and explosions, however, the vacuum cleaning equipment must be approved for Class II, Division 1, Group G locations.

### **Additional Resources**

More information on controlling wood dust hazards – [www.osha.gov/SLTC/wooddust/index.html#eTools](http://www.osha.gov/SLTC/wooddust/index.html#eTools)

The National Fire Protection Association, NFPA 664, Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities – [www.nfpa.org](http://www.nfpa.org)

