



# Wood Dust Hazards and Controls

A 5-Minute Safety Training Aid

HS98-134D (06-23)

**W**ood is used in industries from carpentry and furniture making to lumber milling and cabinetry manufacturing. Many people may admire the workmanship of these items, but wood can pose health and safety hazards to those who work with it daily.



## Wood Dust Hazards

One such hazard is the dust that is produced when the wood is cut, sanded, or otherwise used in building materials. This dust can contain harmful substances, including chemicals used to treat or finish the wood, as well as fine particles of wood.

- **Respiratory Issues**  
Wood dust exposure can cause health problems, ranging from allergic reactions and sinus infections to more serious issues like respiratory problems including asthma, chronic bronchitis, and cancer in the lungs and nasal tissue.
- **Skin Problems**  
Chemicals in many types of wood can cause dermatitis, a condition in which the skin can become red, itchy, or dry, and blisters may develop. Wood dust in direct contact with the skin can also cause dermatitis. With repeated exposures, a worker can become sensitized to the dust and develop allergic dermatitis.
- **Eye Injuries**  
Wood dust thrown from woodworking machines can cause eye injuries. Eye injuries can occur when workers wipe the sweat from their foreheads and rub wood dust into their eyes. It can irritate the eyes causing dryness, tearing, or conjunctivitis, an inflammation of the mucous membranes of the eye.
- **Fire and Explosion Risks**  
When wood dust accumulates on woodworking machinery it acts as an insulator trapping in the heat. If enough heat is

formed, the wood dust will ignite. If dust is concentrated and floating in the air, the fire can cause an explosion.

- **Slips and Trips**

Walking or working surfaces that are covered in wood dust can become slippery creating hazardous conditions.



## Controlling Hazards

These are some of the most effective ways to reduce exposure to wood dust:

- **Monitor and evaluate** your dust control measures to ensure that they are effective and adequate.
- **Use ventilation systems** that capture and remove dust as it is produced. This can include local exhaust ventilation (LEV) systems, which remove dust at the source, or general ventilation systems that circulate fresh air throughout the work area. Remember to regularly clean and maintain ventilation systems.
- **Vacuum wood dust when cleaning** to prevent build-up in the work area. Using compressed air to clean will only stir up more dust.
- **Wear personal protective equipment (PPE)** such as dust masks. Wear a respirator when working with high levels of dust and when cleaning ventilation systems. Even if face shields are worn, wear safety glasses for additional protection.
- **Lubricate bearings to prevent overheating**, which can cause dust fires or explosions.
- **Train employees** who work with wood on the hazards associated with dust and how to safely handle and manipulate the material. This includes educating workers on best practices for dust control, as well as providing regular refresher training that covers changes in equipment or methods.

By controlling wood dust in the workplace, it is possible to reduce the risk of harmful exposure and promote a safer and healthier work environment for all.



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