

WOOD DUST EXPOSURE

What is wood dust?

Wood dust is not just dust! Wood dust is tiny particles of wood produced during the processing and handling of wood, chipboard, and/or hardboard. Exposure to wood dust occurs in many industries, including logging and sawmill operations, furniture and paper manufacturing, and construction of residential and commercial buildings. Workers are potentially exposed when wood is sawn, chipped, routed or sanded.

Health Hazards

Exposure to wood dust may cause health problems. Negative health effects associated with wood dust exposure include dermatitis and/or allergic respiratory effects. When a worker becomes sensitized to wood dust, he or she can suffer an allergic reaction after repeated exposures. Other health effects from wood dust are eye irritation, asthma, nasal dryness and obstruction, and frequent headaches. The natural chemicals in the wood that appear to be associated with allergic reactions are found in the inner parts of the tree or heartwood.

Wood may also contain biological or chemical contaminants. Biological contaminants include molds and fungi, which often grow on the bark of the tree. Wood may also be treated with chemicals to assist in preservation of the wood. Common wood preservatives are arsenic, chromium, copper, and creosote. Processing preserved wood may generate wood dusts that contain the chemical preservatives, compounding the potential health effects.

Safety Hazards

Concentrations of small dust particles in the air can form a mixture that will explode if ignited. This type of situation may occur in dust collection equipment. Wood dust will also burn easily if ignited. Overheated motors or sparks can start wood dust fires.

Wood dust on the floor can cause tripping or slipping. Vision can be impaired by airborne dust generated during wood processing. Wood dust is classified by the Occupational Safety and Health Administration (OSHA) as a hazardous chemical and is subject to the Hazard Communication Standard.

Regulating Wood Dust

Until 1985, wood dust was regulated by OSHA under the Nuisance Dust Standard. Research has shown us

that wood dust is not just dust. Different types of wood dust have different effects on workers. Hardwoods and softwoods have different airborne levels of Permissible Exposure Limits. Hardwoods, such as beech and oak, are listed as having more severe health hazards associated with them than softwoods. Western Red Cedar was placed in a category by itself as an allergic species of wood.

Safe Work Practices

Some possible methods to reduce and/or minimize wood dust levels are:

- Good housekeeping.
- Do NOT use compressed air to clean work surfaces (sweep or vacuum the dust).
- If feasible, use local exhaust ventilation to capture and remove dust from woodworking equipment.
- Ensure dust control equipment is properly maintained.
- Use wet methods where appropriate to minimize dust generation.

