



MATERIAL SAFETY DATA SHEET

WOOD DUST, HARDWOODS, AND SOFTWOODS

Examples: Oak, Hickory, Poplar, Birch, Ash, Pine, etc.

CERCLA RATINGS (Scale 0-3): Health = 3 / Fire = 3 / Reactivity = 0 / Persistence = 0

NFPA RATINGS (Scale 0-4): Health = 3 / Fire = 3 / Reactivity = 0

COMPONENTS AND CONTAMINANTS

COMPONENT: Wood Dust (General) Hardwood or Softwood

Percent: 100.0

Exposure Limits: Wood Dust

Dust – Wood: OSHA PEL* - 15mg/m³ – 8-hour TWA
ACGIH TLV – 1mg/m³ – 8-hour TWA
(Total Dust Per Cubic Feet)

Respirable fraction 5 mg per cubic meter

*Both hardwood and softwood

Special Note: listed as particulates not otherwise regulated

EMERGENCY TELEPHONE NUMBER

800-424-9300 CHEMTREC

PHYSICAL DATA

DESCRIPTION: Dust of varying size, odor, texture and color

FIRE AND EXPLOSION DATA

FIRE AND EXPLOSION HAZARD: The finely divided wood dust presents a dangerous fire and explosion hazard when exposed to heat or flame. The larger dust presents a moderate-to-dangerous fire and explosion hazard when exposed to heat or flame.

FIREIGHTING MEDIA: Dry chemical, carbon dioxide, water spray or foam (1984 emergency response guidebook, DOT P 5800.3). For larger fires, use water spray, fog or foam (1984 emergency response guidebook, DOT P 5800.3)

FIREFIGHTING: Move container from fire area if possible. Do not scatter spilled material with more water than needed for fire control. Dike fire control water for later disposal (1984 emergency response guidebook, DOT P 5800.3, Guide Page 31). Use agents suitable for type of surrounding fire. Avoid breathing hazardous vapors, keep upwind.

TOXICITY

Positive Human Carcinogen

IARC, NTP, Furniture and Cabinet Making Industry

An excess risk of nasal adenocarcinoma has been reported in workers in this industry. This excess risk occurs mainly in those who are exposed to wood dusts.

Some studies have suggested that the incidence of nasal cancers and Hodgkin's disease may be increased in workers in the lumber and sawmill (including logging), carpentry and joinery trades and the pulp and paper industries. Wood dust is an eye, skin and mucous membrane irritant and a skin sensitizer.

HEALTH EFFECTS AND FIRST AID

Inhalation: Irritant/Sensitizer/Carcinogen

Acute exposure, depending upon the species of tree, inhalation of wood dust may cause symptoms ranging from sneezing, coughing, rhinorrhea, fever, muscular aches and pains, labored breathing, nasopharyngitis, and bronchitis. The irritation caused by some wood dusts may cause sinus inflammation and nose bleeds. These symptoms have been attributed to an allergic-type reaction and appear to be very species specific. Pulmonary sensitization to specific species has been documented. Pneumonitis or extrinsic allergic alveolitis may also occur among individuals that are susceptible to the wood dust. Studies have shown that this condition may be caused by the wood dust itself. There is the possibility that microorganisms inhabiting the wood may also be responsible for causing this condition in some individuals. Many of the more exotic woods have been reported to cause nausea and vomiting following inhalation, these woods have also been reported to cause dizziness, giddiness, and cardiac arrhythmias.

Chronic exposure, repeated or prolonged exposure, may result in asthma and/or rhinitis. Studies have shown that occupational asthma is the result of irritation of the dust. Many woods are composed of biologically active chemical agents and these agents may play a role in causing the asthma. Cases of pulmonary fibrosis have been reported in individuals with long term exposure to wood dust. Nasal carcinomas, especially adenocarcinoma, have been documented in workers in the furniture and cabinet making industries. This excess risk occurs mainly in those exposed to wood dust. An increase in Hodgkin's disease has been seen in other industries that are involved in woodworking, especially sawmills. Wood dusts appear to produce a mucostatic effect on the body. A study has suggested that this mucostatic action may be of importance in the development of nasal adenocarcinomas in furniture workers because of the prolonged retention of wood dust in nasal cavity.

FIRST AID: Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Get medical attention immediately.

SKIN CONTACT: Irritant / Sensitizer

Acute Exposure – All wood dusts have been implicated in causing irritation. This irritation may be the result of mechanical means and/or chemical agents. Mechanically caused irritation is the result of dust particles being trapped in the clothes of the worker and producing abrasions. The chemical agents may cause contact dermatitis with redness, scaling, and itching. Severe cases may progress to blistering of the skin. The areas that are most often affected are the face, eyelids, hands, and forearms. Splinters from some hardwoods may produce septic wounds that may take an extremely long time to heal.

Chronic exposure, repeated or prolonged exposure, may result in allergic dermatitis. Sensitization reactions may be mild with only erythema and irritation, but more often there is vesicular or papular dermatitis which may progress to chronic dermatitis.

FIRST AID: A thorough cleansing of the body; each day at a minimum, is necessary in the prevention of adverse reactions to wood dust. Any wound resulting from splinters or abrasions should be cleaned thoroughly. Splinters should be removed as quickly as possible by qualified medical personnel. If an infection from a splinter wound occurs, seek prompt medical attention. Remove and wash contaminated clothing at the end of each day.

EYE CONTACT: Irritant

Acute Exposure – Direct contact with wood dust may cause irritation and inflammation. Mechanical damage of the cornea may also occur.

Chronic exposure, repeated or prolonged exposure, may cause conjunctivitis.

FIRST AID: Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention immediately.

INGESTION: Acute exposure – no data available. Chronic exposure – no data available.

FIRST AID: Treat symptomatically and supportively. Get medical attention immediately. If vomiting occurs, keep head lower than hips to prevent aspiration.

ANTIDOTE: No specific antidote. Treat symptomatically and supportively.

REACTIVITY

REACTIVITY: Stable under temperatures and pressures

IMCOMPATIBILITIES: Strong oxidizers: First and explosion hazard

DECOMPOSITION: Thermal decomposition products may include toxic oxides of carbon.

POLYMERIZATION: Hazardous polymerization has not been reported to occur under normal temperatures and pressure.

CONDITIONS TO AVOID

Finely divided dusts may ignite easily. Larger dusts usually require longer exposure time to heat a flame before ignition occurs.

SPILL AND LEAK PROCEDURES

OCCUPATIONAL SPILL: No special precautions indicated.

PROTECTIVE EQUIPMENT

VENTILATION: Provided local exhaust or general dilution ventilation. Ventilation equipment must be explosion-proof.

RESPIRATOR: The specific respirator selected must be based on the contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration. The following respirators are recommended based on the data found in the physical data, health effects and toxicity sections. They are ranked in order from minimum to maximum respiratory protection:

- Cartridge style respirators (half or full face piece) with dust cartridges
- Gas mask respirators with dust filter canisters
- Type C supplied-air respirator operated in the pressure-demand or other positive pressure or continuous-flow mode
- Self-contained breathing apparatus

FOR FIREFIGHTERS AND OTHERS IMMEDIATELY IN DANGER:

Self-contained breathing apparatus with full face piece operated in pressure demand or other positive pressure mode

Supplied-air respirator with full face piece and operated in pressure demand or other positive pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure demand or other pressure mode.

CLOTHING: Employer must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with the substance.

GLOVES: Employee must wear appropriate protective gloves to prevent contact with this substance.

EYE PROTECTION: Employee must wear splash-proof or dust-resistant safety goggles to prevent eye contact with this substance.

