

UREA-FORMALDEHYDE BONDED PANEL PRODUCTS

Products: Medium Density Fiberboard (MDF), Hardboard, Particleboard (except Redex), Hardwood Plywoods

Hazardous Ingredients

	ACGIH TLV	ACGIH STEL	OSHA TWA	OSHA STEL
Wood/Wood Dust	5 mg/M ³ *	10 mg/M ³	5 mg/M ³ **	10 mg/M ³
Resin Solids (dusts)	5 mg/M ³ *	10 mg/M ³	15 mg/M ³	—
Free Formaldehyde (<0.1%)	1 ppm	1.5 ppm	0.75 mg/M ³	2 ppm
			15 mg/M ³ (total)	
			5 mg/M ³ (respirable)	

* 1 mg/M³ for hardwood dust

** 2.5 mg/M³ for Western Red Cedar

Physical Characteristics/ Storage Considerations

Urea-formaldehyde panel products are white to brown in color and less dense than water. These products are chemically stable but should not be stored in areas where temperatures exceed 212° F or where exposure to open flames or oxidizing agents such as chlorine, strong acids, or hydrogen peroxide, is possible.

Fire and Explosion Data

Urea-formaldehyde panel products may ignite if exposed to temperatures exceeding 400° F. These products are combustible and may burn if exposed to open flames, high temperature objects, or oxidizing chemicals.

Finely divided wood dust generated by sawing, sanding, grinding and similar operations can create a severe explosion hazard if the dust concentration exceeds 40 grams per cubic meter (dust cloud) and contacts an ignition source.

Normal firefighting methods for wood fires such as water or CO₂ extinguishment may be used in case of fire. Toxic constituents found in wood smoke include carbon monoxide, aldehydes, and polycyclic aromatic hydrocarbons. Remove panels and dust to open area after fire is extinguished to prevent reignition.

Health Hazards/Protective Measures

Dust: Panel dust can irritate eyes and breathing passages.

Some wood species may cause skin irritation or respiratory irritation on prolonged repetitive contact by susceptible persons (i.e. allergies). Some researchers have observed instances where long-term exposure to wood dust may be associated with nasal cancer. Wood dust is listed as a cancer-causing substance by the International Agency for Research on Cancer (IARC).

Persons should wear protective goggles and NIOSH-approved respirators for nuisance dust when working in areas where dust is generated.

Formaldehyde: These products release low amounts of formaldehyde. Particleboards and plywoods comply with the standards for formaldehyde offgassing set by the U.S. Department of Housing and Urban Development (0.3 ppm). Medium Density Fiberboard (MDF) and hardboards are not regulated by HUD but the offgassing levels of formaldehyde are generally less than the 0.75 part per million standard required by OSHA (as measured by the HUD method specified in 49 Fed. Reg. 32012).

Formaldehyde has been listed by IARC, NTP, and OSHA as either a carcinogen (cancer-causing agent) or as a potential carcinogen. Formaldehyde may cause irritation or allergic contact dermatitis in sensitive individuals.

General Work Practice: Local ventilation should be provided to remove wood dust from workspaces when feasible. Users should wear protective gloves and goggles when handling or working on panel products to prevent injury. Good housekeeping practices should be used to minimize dust levels in the air and to reduce the possibility of slipping on dust collected on floor surfaces.

Disclaimer

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Comments

Louisiana-Pacific has attempted to provide a readable and informative MSDS for use with L-P products. Should you have any comments or suggestions regarding this MSDS, please send them to Louisiana-Pacific Corporation, 111 SW Fifth Avenue, Portland, Oregon 97204-3601, Attn: MSDS Information Coordinator.