



## MATERIAL SAFETY DATA SHEET

**SECTION I - PRODUCT IDENTIFICATION****Product Name:** PLYWOOD**Trace Name:** Softwood Veneer Phenolic - Formaldehyde Plywood**Synonyms:** N/A**Chemical Family:** N/A**Chemical Formula:** N/A**CAS Number:** None**Manufacturer's Address:** Temple-Inland Forest Products Corporation

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Diboll, Texas 75941

**Contact:** Don Cox, Manager Chemical Control & Health Programs**Emergency Telephone Number:** 936-829-5511**Date Prepared or Revised:** March 2002**SECTION II - HAZARDOUS INGREDIENTS**

COMPONENT	CAS #	EXPOSURE LIMIT (OSHA)	EXPOSURE LIMIT (ACGIH)
Free Formaldehyde	50-00-0	0.75 ppm - PEL (TWA) 2 ppm - STEL (15 mins.)	0.3 ppm Ceiling Limit
Wood Dust/PNOC	None	5mg/m; - PEL 10mg/m; - STEL	5 mg/m; - TLV 10mg/m; - STEL

In AFL-CIO v. OSHA 965 F. 2d 962 (11th Cir. 1992), the court overturned OSHA's 1989 Air Contaminants Rule, including the specific PELs for wood dust that OSHA had established at that time. The 1989 PELs were: TWA-5.0 mg/m<sup>3</sup>; STEL (15 min.) - 10.0 mg/m<sup>3</sup> (all soft and hard woods, except Western red cedar); Western red cedar: TWA - 2.5 mg/m<sup>3</sup>.

Wood dust is now officially regulated as an organic dust under the Particulates Not Otherwise Regulated (PNOR) or Inert or Nuisance Dust categories at PELs noted under Section II of this MSDS. However, a number of states have incorporated provisions of the 1989 standard in their state plans. Additionally, OSHA has announced that it may cite companies under the OSH Act General Duty Clause under appropriate circumstances for non-compliance with the 1989 PELs.

\*NOTE: Although Agency and court decision(s) could affect these values, the Company will continue to utilize these values as the MSDS PEL.

**SECTION III - PHYSICAL PROPERTIES****DESCRIPTION**

Composite panel product composed of naturally occurring binders and wood fiber which has been thermo-mechanically pulped and pressed under elevated temperatures and pressure into panels of various sizes (normally 4' X 8').

**Physical Data****Boiling Point:** Not Applicable**Specific Gravity:** <0.8**Vapor Pressure (MM OF Mercury):** Not Applicable**Vapor Density (Air = 1):** Not Applicable**% Volatiles By Volume:** Not Applicable**Evaporation Rate (Butyl Acetate = 1):** Not Applicable**Solubility in H2O (% BY WT.):** <6%

**Reactivity in Water:** None

**pH** - Not Applicable

**Appearance And Odor:** White, brown or tan panel with softwood odor.

### **SECTION IV - FIRE AND EXPLOSION DATA**

**Flash Point:** Not Applicable

**Auto Ignition Temperature:** 400 - 500E F

**Flammable Limits (% by Volume):** Lower: N/A Upper: N/A

**Fire Extinguishing Media:** Water Spray, Carbon Dioxide, Sand

**Special Fire Fighting Procedures:** Normal fire fighting Procedures & Equipment. Determined by surrounding fire. Use a water spray to wet down panel and panel dust to reduce potential of ignition or dispersion of dust into the air. Remove burned material to open area after fire is extinguished.

**Unusual Fire And Explosion Hazards:** Finely divided panel dust can create a severe explosion hazard if the dust cloud contracts a source of ignition. An air borne concentration of 40 grams per cubic meter of air is commonly considered the LEL for dust of this type.

### **SECTION V - HEALTH HAZARD DATA**

**Formaldehyde Vapor:**

**NOTE:** These products are manufactured using a phenol-formaldehyde thermoset resin. Maximum indoor formaldehyde levels associated with freshly manufactured panels are similar to outdoor background levels in urban areas (less than 0.1 ppm; and levels decrease through time as the panels age). The free formaldehyde content of the panel is less than 0.04 percent.

**Signs and Symptoms of Exposure:** Acute - may cause temporary irritation of skin, eyes, or respiratory system. May cause sensitization in susceptible individuals. Should irritation occur and persist contact a physician. Chronic - rats exposed to 14%ppm formaldehyde developed nasal cancer. The NCI epidemiology study published in 1986 of 26, 000 workers found little evidence linking formaldehyde exposure to cancer at levels experienced by workers in the study. The EPA has classified formaldehyde a B-1 Probable Human Carcinogen. Formaldehyde is listed by the IARC and the NTP as an animal carcinogen. Medical Conditions Aggravated by Exposure: Respiratory conditions to allergies.

**Wood Dust:** May cause nasal dryness, irritation and obstruction. Coughing, wheezing, and sneezing sinusitis and prolonged colds have also been reported. Depending on species, may cause respiratory sensitization and/or irritation. IARC classifies wood dust as a carcinogen to humans (Group 1). This classification is based primarily on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. IARC did not find sufficient evidence to associate cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum with exposure to wood dust.

### **EMERGENCY FIRST AID PROCEDURES**

**Inhalation, Eyes, Skin:** Remove to fresh air.

**Ingestion:** N/A

If irritation or other symptoms persist, consult a physician.

**Panel Dust :** Signs and Symptoms of Exposure: Acute Overexposure: Panel dust may be a mechanical irritant to eyes. Excessive concentration may cause deposit in nasal passages resulting in rhinorrhea, dry cough, wheezing, sinusitis. Chronic Overexposure: Some species of wood dust can elicit allergic contact dermatitis in sensitized individuals as well as mechanical irritation resulting in erythema and hives. Prolonged exposure to certain species of wood dust have been statistically associated with nasal cancer in British furniture workers. Medical Conditions Generally Aggravated by Exposure: Individuals with predisposing respiratory disease - asthma, chronic bronchitis - may have difficulty working around airborne particulates including panel dust.

Signs and Symptoms of Exposure: Acute - may cause temporary irritation of skin, eyes, or respiratory system. If irritation persists consult a physician. Chronic - rats exposed to 14 ppm formaldehyde developed nasal cancer. The NCI epidemiology study of 26,000 workers found little, if any, evidence linking formaldehyde exposure to cancer. The EPA has classified formaldehyde a B-1 Probable Human Carcinogen. Formaldehyde is listed by the IARC and the NTP as an animal carcinogen.

### **SECTION VI - REACTIVITY DATA**

**Stability:** Stable

**Conditions To Avoid:** Temperature in excess of 212 degrees F and open flames.

**Incompatibility (materials to avoid):** Strong oxidizing agents and drying oils.

**Hazardous Decomposition Products:** Thermal decomposition products include CO, polycyclic aromatic hydrocarbons, CO<sub>2</sub>, aldehydes, and other toxic fumes and gases.

**Hazardous Polymerization:** Will not occur

### **SECTION VII - SPECIAL PRECAUTION PROCEDURES**

**Precautions And Safe Handling:** No special handling precautions are required. Panels are combustible. Keep in cool, dry place away from open flame and other sources of ignition.

**Steps To Be Taken If Spilled Or Released:** Not applicable for product in purchased form. Panel dust may be vacuumed or shoveled for recovery or disposal. Avoid dusting conditions. Provide good ventilation where dusting is possible. Use (NIOSH/MSHA approved) dust respirator and goggles where ventilation is not possible and/or as required.

**Waste Disposal Method:** Incinerate or landfill in accordance with local, state, and federal regulations.

**Wood Dust:** Avoid dusty conditions and provide good ventilation.

### **SECTION VIII - SPECIAL PROTECTION INFORMATION**

**Respiratory Protection:** Not required. However, the wearing of NIOSH approved breathing protection for exposure to wood dust may be necessary.

**Ventilation:** Local Exhaust: Necessary to remove dust in sanding, sawing and machine processes.

**Mechanical:** Ventilate to assure formaldehyde concentration is less than the OSHA PEL.

**Eye Protection:** Wear appropriate eye protection or safety goggles if wood dust exposure is possible.

### **SECTION IX - REGULATORY INFORMATION**

**California Proposition 65:** Safe Drinking Water and Toxic Enforcement Act (and other similar regulations). California Proposition 65 provides for labeling and disclosure of the presence of a chemical(s) known to the STATE OF CALIFORNIA to cause cancer or reproductive toxicity. This product may contain Formaldehyde in extremely low levels. Based on a preponderance of data and the recognition by OSHA that 0.75 ppm TWA is a safe employee exposure level, we do not feel that exposure to this product presents significant risk to users.

**SARA 313:** This product does not contain chemical(s) in concentrations which should require reporting under SARA Section 313.

**ODS:** During the manufacture of this product there is no intended use of listed ozone depleting chemicals as defined in applicable EPA regulations.

**IMPORTANT:** Temple-Inland Forest Products Corporation believes the information contained in this Data Sheet to be accurate at the time of preparation and has been compiled using sources believed to be reliable. However, the Company (Temple-Inland Forest Products Corporation) makes no warranty, either expressed or implied concerning the accuracy or completeness of the information presented. It is the responsibility of the user to comply with local, state, or federal regulations concerning use of this product. It is the further responsibility of the buyer to research and understand safe methods