



SAFETY DATA SHEET

SECTION I - PRODUCT AND COMPANY IDENTIFICATION

Product: Panolam Thermofused Laminate (TFL)

Recommended Use: Manufacture of residential and office furniture, cabinets, shelving, store fixtures and hospitality furnishings

Manufacturer Information: Panolam Industries
20 Progress Drive
Shelton, CT 06484
(203) 925-1556

Emergency Contact (24 hours): CHEMTREC 1-800-424-9300

SECTION II – HAZARD IDENTIFICATION

GHS Classification: Not applicable – Non-hazardous
GHS Signal Word Not applicable – Non-hazardous
GHS Pictograms Not applicable – Non-hazardous
Hazard Statement Not applicable – Non-hazardous
Precautionary Statement May form combustible dust concentrations in air if small particles are generated during further processing, handling or by other means.

Drilling, sawing, sanding or machining wood products generates wood dust, a substance known to the State of California to cause cancer.

SECTION III – COMPOSITION INFORMATION

Panolam TFL panels are solid sheets which are composed of wood fiber, fillers, pigments and other additives which are bound together with amino-formaldehyde resins. These panels are considered as “articles” as defined in the OSHA Hazard Communication standard in 29 CFR 1910.1200 (c) and are not considered hazardous under normal use.

CHEMICAL IDENTITY	CAS NUMBER	PER CENT BY WEIGHT
Ligno-Cellulosic Materials		85 – 95 %
Polymerized Amino-Formaldehyde and/or Phenol -Formaldehyde Resins		6 – 11 %
Formaldehyde	50-00-0	< 0.1%

SECTION IV – FIRST AID MEASURES

- Inhalation:** Remove to fresh air. Get medical attention if irritation persists, or if severe coughing or breathing difficulty occurs.
- Eye Contact:** Flush eyes with large amounts of water. Remove to fresh air. If irritation persists, get medical attention.
- Skin Contact:** Wash affected areas with soap and water. Get medical attention if rash or irritation persists or dermatitis occurs.
- Ingestion:** Not likely to occur under normal conditions of use.
- Recommendations for Immediate Medical Care/Special Treatment:** None known.

SECTION V – FIREFIGHTING MEASURES

- Extinguishing media:** Water, Dry Chemical, CO₂
- Special Hazards:** Sawing, sanding or machining can produce wood dust which may present a strong to severe explosion hazard if a dust cloud contacts an ignition source. An airborne concentration of 40 grams of dust per cubic meter of air is often used as the LEL for wood dust.
- Combustion of the material can release CO, CO₂, NH₃, Aliphatic Aldehydes, Rosin Acids, Terpenes.
- Recommendations on Protective Equipment:** Firefighters should wear Chemical Cartridge Respirators approved for Formaldehyde and Organic Vapors. Use water to wet down wood dust to reduce the likelihood of ignition or dispersion of dust into the air.

SECTION VI – ACCIDENTAL RELEASE MEASURES

- Personal Precautions/Emergency Procedures:** Sweep or vacuum spills for recovery or disposal; avoid creating dust conditions.
- Environmental Precautions:** No special precautions required.
- Clean-up Procedures:** Sweep or vacuum spills for recovery or disposal; avoid creating dust conditions.

SECTION VII – HANDLING AND STORAGE

Precautions to be taken in handling and storing:	This product should not be stored where exposure to water could occur or near a source of ignition. Avoid storing in areas of high relative humidity and increased temperature. High temperature and inadequate ventilation could allow concentrations of formaldehyde vapors in the storage area. Adequate ventilation of the storage area will help reduce the build-up of the formaldehyde vapors. It is recommended to store product in an area of relative humidity and temperature that approximates end use.
Incompatibility (Materials to Avoid):	None Known

SECTION VIII – EXPOSURE CONTROL /PERSONAL PROTECTION

OSHA Permissible Exposure Limits:	Formaldehyde (50-00-0)	TWA: 0.75 ppm STEL: 2 ppm (15 min)
	Wood Dust/ Ligno-cellulosic fiber	TWA: 15.0 mg/m ³ (total dust) TWA: 5.0 mg/m ³ (respirable fraction)
Ventilation controls:	Certain activities of the re-manufacturing process of this product could possibly produce wood dust (or ligno-cellulosic fibers) or gaseous formaldehyde. Provide adequate general and local exhaust ventilation to keep airborne contaminant concentration levels below the applicable levels.	
Hand protection:	Not required; cloth, leather gloves recommended.	
Eye protection:	Wear side shield safety glasses or safety goggles during the machining of this product.	
Respiratory protection:	When machining, use a NIOSH approved dust mask. Avoid prolonged or repeated breathing of wood dust in air.	
Body protection:	Outer garments may be desirable when machining.	
Foot protection:	Safety shoes.	
General Hygiene/Safety Measures:	Wear protective clothing as necessary to prevent contact. Wash soiled clothing immediately.	

SECTION IX - PHYSICAL DATA

Appearance:	Solid. Various thickness and surface colors/patterns.
Odor:	Odor dependent on wood species
Odor Threshold:	Not applicable

pH:	Not applicable
Melting Point:	Not applicable
Boiling point:	Not applicable
Flash Point:	Not applicable
Flammability:	Not applicable
Lower Explosion Limit:	Not available
Upper Explosion Limit:	Not available
Autoignition:	200 – 250°C
Decomposition Temperature:	Not available
Vapor pressure:	Not applicable
Specific gravity:	0.7 - 0.8
Vapor density:	Not applicable
Partition Coefficient n-octanol/water:	Not applicable
Viscosity:	Not applicable
Solubility in water (% by weight):	<0.1%
Evaporation rate (Butyl acetate = 1):	Not applicable

SECTION X – STABILITY AND REACTIVITY

Reactivity:	Stable under normal conditions of storage and use.
Chemical Stability:	Stable under normal conditions of storage and use.
Possibility of Hazardous Reactions:	None Known.
Conditions to Avoid:	Avoid product contact with any high temperature sources that could induce thermal decomposition. High relative humidity and temperature can also increase the rate of formaldehyde emissions.
Incompatibility (Materials to Avoid):	Avoid oxidizing agents and strong acids
Hazardous decomposition products:	Thermal and/or thermal oxidative decomposition can produce irritating and toxic fumes and gases, including carbon monoxide, hydrogen cyanide, aldehydes, organic acids and polynuclear aromatic compounds.

SECTION XI- TOXICOLOGICAL PROPERTIES

Route of Entry:	Skin contact [X]	Skin absorption []	Eye contact [X]
	Inhalation [X]	Ingestion [X]	

EFFECTS OF ACUTE EXPOSURE:

Inhalation: Gaseous formaldehyde may cause temporary irritation to nose and throat. Some reports suggest that formaldehyde may cause respiratory sensitization, such as

asthma, and that pre-existing respiratory disorders may be aggravated by exposure. Wood dust may cause nasal dryness, irritation and obstruction. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported.

Eye Contact: Gaseous formaldehyde may cause temporary irritation or a burning sensation. Wood dust may cause mechanical irritation.

Skin Contact: Formaldehyde may evoke allergic contact dermatitis in sensitized individuals. Wood dust may evoke allergic contact dermatitis in sensitized individuals.

Skin Absorption: Not likely to occur.

Ingestion: Not considered a problem under normal use. Dust may cause irritation.

Toxicity: **WOOD DUST** :(softwood or hardwood: OSHA Hazard Rating = 3.3; moderately toxic with probable oral lethal dose to humans being 0.5 – 5 g/kg (about 1 pound for a 70 kg or 150 pound person). Source: OSHA Regulated Hazardous Substances, Government Institutes, Inc., February 1990.
FORMALDEHYDE : OSHA Hazard Rating = 3 for local and systemic acute and chronic exposures; highly toxic. Irritation studies: human skin, 150 ug/3 days, intermittent exposure produce mild results; human eye, 1 ppm/6 minutes produced mild results. Toxicity studies: human inhalation TCLO of 17 mg/m³ for 30 minutes produced eye and pulmonary results; human inhalation TCLO of 300 ug/m³ produced nose and central nervous system results; LC50 (rat, inhalation = 1000 mg/m³ , 30 minutes; LC50 (mice, inhalation = 400 mg/m³ , 120 minutes

Irritancy: Both formaldehyde and wood dust may cause irritation of skin, eyes, throat and nose.

Sensitization: Some reports suggest that formaldehyde may cause respiratory sensitization, such as asthma, and that pre-existing respiratory disorders may be aggravated by exposure.

Carcinogenicity: **Formaldehyde:** International Agency for Research on Cancer (IARC) has listed formaldehyde as a probable human carcinogen. The National Toxicology Program (NTP) includes formaldehyde in its Annual Report on carcinogens. OSHA regulates formaldehyde as a potential cancer agent.
In studies involving rats, formaldehyde has been shown to cause nasal cancer after long-term exposure to very high concentrations (14+ PPM), far above those normally found in the workplace.
The National Cancer Institute (NCI) conducted an epidemiological study of industrial workers exposed to formaldehyde (published June 1986). The NCI concluded that the data provides little evidence that mortality from cancer is associated with formaldehyde exposure at the levels experienced by workers in the study.

Wood Dust: Wood dust (and/or ligno-cellulosic fibers), 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. On December 11, 2002 the National Toxicology Program (NTP) published the 10th edition of its Report on Carcinogens. This report now lists wood dust as a "known human carcinogen".

Reproductive toxicity: Not available
Teratogenicity: Not available
Mutagenicity: Insufficient human or animal effect information.
Toxicologically synergistic products: Not available

Symptoms of Exposure: No significant reaction to the product is expected.

SECTION XII – ECOLOGICAL INFO

Toxicity: No information available.
Biodegradation and Elimination: Readily biodegradable.
Bioaccumulation Potential: No information available.
Mobility: No information available.
Additional Information: No additional information available.

SECTION XIII – DISPOSAL CONSIDERATIONS

Waste disposal method: This product is not considered a hazardous waste under EPA Hazardous Waste Regulations 40 CFR Part 261, however, State and local requirements for waste disposal may differ and should be reviewed.
 Can be landfilled or incinerated in accordance with local, provincial, state, federal regulations.
 Do not discharge substance/product into sewer system.

Container disposal Dispose of in accordance with local, provincial, state, federal regulations.

SECTION XIV – TRANSPORT INFORMATION

PIN Number Not applicable.
TDG Shipping Name Not applicable.

TDG Hazard Class	Not applicable.
DOT Class	Not regulated.
IATA	Not regulated.
IMDG	Not regulated.

It is the responsibility of the transporting organization to follow all applicable laws, regulations, and rules relating to the transportation of the material.

SECTION XV – REGULATORY INFORMATION

NFPA Rating: Health: 1 Flammability: 1 Reactivity: 0

HMIS Rating: Health: 1 Flammability: 1 Reactivity: 0

OSHA (29CFR 1910.1200): See Section II of MSDS.

TSCA: All components are listed on the TSCA Inventory.

CERCLA RQ: This product contains the following chemical(s) which have reportable quantities:

None

SARA 311/312: Immediate (Acute) Health Hazard: No

Delayed (Chronic) Health Hazard: No

Fire Hazard: No

Reactive Hazard: No

Sudden Release of Pressure Hazard: No

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

California Prop 65: This product contains formaldehyde, a substance known to the State of California to cause cancer per California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) Section 25249.8. Based on information gathered on the formaldehyde emissions of particleboard and MDF substrates used in the production of our TFM panels, in accordance with the statute, it has been determined that the formaldehyde emissions of our TFM panels are below the "no significant risk" level and do not require warnings per Section 25249.10 .

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Component Analysis – State

The following components appear on one or more of the following state hazardous substances lists and may also appear on similar lists in states not on the chart:

Component	CAS	CA	MA	MN	NJ	PA	RI
Formaldehyde	50-00-0	Yes	Yes	Yes	Yes	Yes	Yes
Wood dust, all soft and hard woods	None	Yes	No	Yes	No	Yes	Yes

HUD: This material conforms to the formaldehyde emission requirements for particleboard of the U.S. Department of Housing and Urban Development. Under 24 CFR 3280 Manufactured Home Construction and Safety Standards, formaldehyde emissions must be less than 0.3 ppm for particleboard tested in accordance with FTM-2, the NPA/HPMA Large Scale Chamber Test.

WHMIS: This product is not considered a controlled product. It has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations*.

DSL: All materials are listed

SECTION XVI – OTHER INFORMATION

Revision Date: 5/26/15

DISCLAIMER:

The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with applicable federal, state, provincial and local laws and regulations. Panolam Industries makes no warranty of any kind, express or implied, concerning the accuracy or completeness of the information and data herein. The implied warranties of merchantability and fitness for a particular purpose are specifically excluded. Panolam Industries will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading.