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
Muskoka Road 3
Huntsville, Ontario P1H2J7
(705) 789-9683

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

SECTION II – HAZARD IDENTIFICATION

Emergency overview: This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous by downstream activities (e.g., grinding, sanding, cutting, pulverizing) that reduce its particle size. Those hazards are described below.

GHS Classification:
Carcinogenicity - Category 1A ;
Respiratory Sensitization - Category 1;
Skin Sensitization - Category 1;
Specific Target Organ Toxicity (STOT) (Single Exposure) - Category 3;
Eye Damage/Irritation - Category 2B;
Combustible Dust

GHS Signal Word Danger

GHS Pictograms

Hazard Statement
May cause cancer (by inhalation)
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May cause respiratory irritation
Causes eye irritation
May form combustible dust concentrations in air (during processing)

Precautionary Statement	Prevention	Avoid breathing dust. Contaminated clothing should not be allowed out of the workplace. Wear protective gloves. Wash thoroughly after handling.
	Response	If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms after removal to fresh air: Call a doctor or other qualified medical professional. If on skin: Wash with plenty of soap and water. If skin or rash occurs: Get medical advice/attention. Wash contaminated clothes before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
	Storage	None
	Disposal	Dispose of contents in accordance with Federal, State and local regulations
	Hazards not otherwise classified	None Known

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		0 – 11 %
Formaldehyde	50-00-0	< 0.1%
Polymeric MDI (pMDI)	9016-87-9	0 – <1.0

SECTION IV – FIRST AID MEASURES

Inhalation:	If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing

	respiratory symptoms after removal to fresh air, call a doctor or other qualified professional.
Eye Contact:	Treat wood dust in eye like a foreign object. Flush eyes repeatedly with water. Seek fresh air. If irritation persists, consult a specialist.
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.
Most important symptoms/effects, acute and delayed:	Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Dusts may irritate the respiratory tract, skin and eyes. Difficulty in breathing. May cause an allergic skin reaction. Dermatitis. Rash.
Recommendations for Immediate Medical Care/Special Treatment:	Keep victim under observation. Symptoms may be delayed.

SECTION V – FIREFIGHTING MEASURES

Extinguishing media: Wood is classified as a Class A combustible material. Firefighting procedures for extinguishing a Class A fire should be followed. 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.

Hazardous decomposition products may include irritating fumes or gases including carbon monoxide, aldehyde or organic acids

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: Wood dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Non-sparking tools should be used.

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: Keep panels away from excessive heat and flame. Minimize wood dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and handling operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

This product should not be stored near a source of ignition. Avoid storing in areas of high relative humidity and temperature. High temperature and inadequate ventilation could allow concentrations of formaldehyde emissions in the storage area. Adequate ventilation of the storage area will help reduce the build-up of the formaldehyde emissions. 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)
Wood Dust (softwood)	ACGIH TLV – TWA: 5.0 mg/m^3 ACGIH-STEL (15 min): 10.0 mg/m^3
Wood Dust (Certain hardwood such as beech and oak)	ACGIH TLV – TWA: 1.0 mg/m^3
Wood Dust (Western red cedar)	ACGIH TLV – TWA: 2.5 mg/m^3

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.

Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

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:	40 g/cm^3 for wood dust
Lower Explosion Limit:	Not available
Upper Explosion Limit:	Not available
Autoignition:	399.92 – 500 ^{o}F (204.4 – 260 ^{o}C) for wood
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):	Insoluble
Evaporation rate (Butyl acetate = 1):	Not applicable

SECTION X – STABILITY AND REACTIVITY

Reactivity:	Avoid product contact with any temperature sources that could induce thermal decomposition. Avoid product contact with oxidizing agents and strong acids.
Chemical Stability:	Stable under normal conditions of storage and use.
Possibility of Hazardous Reactions:	None Known.
Conditions to Avoid:	Exposure to water, ignition source, high relative humidity and high temperature, dust accumulation and dispersion in the air
Incompatibility (Materials to Avoid):	Acids, alkalies, oxidizers and drying oils
Hazardous decomposition products:	Thermal and/or thermal oxidative decomposition can produce irritating and toxic fumes and gases, generating carbon oxides, nitrogen oxides, hydrogen cyanide (HCN), aldehydes and organic acids

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.

CHRONIC EXPOSURE:

Medical Conditions Aggravated by Exposure	Exposure to panel is not expected to aggravate existing medical conditions. Exposure to dust created from processing these products may aggravate pre-existing respiratory and skin conditions.
STOT (single exposure) – Category 1	Respiratory tract irritation
STOT (repeated exposure) – Category 2	Not classified

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.

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.

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: 2 Flammability: 1 Reactivity: 0
HMIS Rating: Health: 2 Flammability: 1 Reactivity: 0

OSHA (29CFR 1910.1200): Although there is a wood products exemption in the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200, products containing formaldehyde and wood dust generated from sawing, sanding or machining wood and wood products are not within the scope of this exemption..

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 .

⚠**WARNING**: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood

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: 5/7/19
Previous Revision Date: 9/27/18

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.

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Precautionary Statements

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Avoid breathing dust.
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Wash thoroughly after handling.

Response

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms after removal to fresh air: Call a doctor or other qualified medical professional.
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Wash contaminated clothes before reuse.
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Storage None

Disposal Dispose of contents in accordance with Federal, State and local regulations

DANGER

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