

MATERIAL SAFETY DATA SHEET

MSDS No. : 201108-01

1. COMPOSITE PANEL PRODUCT AND COMPANY IDENTIFICATION	
Commercial name :	TafiPan[®]
Synonym :	Particleboard, Raw panel.
Product description :	Panel product manufactured from Ligno-cellulosic fiber (Wood)), synthetic resin, and which may contain additives.
Product general use :	Lamination, construction and furniture manufacturing.
MANUFACTURER : Tafisa Canada 4660, Villeneuve Lac-Mégantic Québec, Canada G6B 2C3 (819) 583-2930	EMERGENCY TELEPHONE NUMBER : (819) 583-3014 (333) –Security 24hrs (819) 583 2930 - Reception 8h00 to 17h00
REVISION #2	2011/08/09

2. COMPOSITION / INFORMATION ON INGREDIENTS		
CHEMICAL IDENTITY	CAS REGISTRY #	WEIGHT %
Formaldehyde (free)	50-00-0	< 0.1 %
Polymerized Urea Formaldehyde Resin	9011-05-6	6 – 9 %
Wood (ligno-cellulosic fiber)	None	85 – 95%

CHEMICAL IDENTITY	EXPOSURE LIMITS
FORMALDEHYDE	OSHA PEL – TWA : 0.75 PPM OSHA PEL – STEL :2.0 PPM ACGIH TLV – Ceiling 0.3 PPM Ontario reg.833 (2005) OEL – 1.0 PPM British Columbia reg. 296-297 (1997) – TWA – 0.3 PPM Quebec RQMT (2001) – Ceiling (PEL) – 2.0 PPM C2
WOOD DUST / LIGNO-CELLULOSIC FIBER	OSHA PEL – TWA - 15.0 mg/m ³ (total dust) et 5.0 mg/m ³ (respirable) ACGIH TLV – TWA - 1.0 mg/m ³ (hard wood) ACGIH TLV – TWA - 5.0 mg/m ³ (soft wood) ACGIH TLV – STEL - 10.0 mg/m ³ (soft wood) NIOSH REL – TWA – 1.0 mg/m ³ Ontario (2005) TWA – <i>Soft wood</i> 1.0 mg/m ³ (total dust) <i>Hard wood</i> 5.0 mg/m ³ British Columbia reg. 296-297 (1997) – 1.0 mg/m ³ K1 Quebec RQMT (2005) – VEMP 5.0 mg/m ³ (total dust)
FOR THE SIGNIFICANCE OF THE ACRONYMS USED IN THIS CARD, PLEASE CONSULT SECTION 16. All products from Tafisa Canada are CARB 2 (California Air Resource Board) certified.	

3. HAZARDS IDENTIFICATION : SEE ALSO TOXICOLOGICAL INFORMATIONS (SECTION 11)	
EMERGENCY OVERVIEW :	The TafiPan panel is not an hazardous component. Hazards listed below are linked to main products entering in the composition of panel. The product may release small quantities of formaldehyde in gaseous form. Emissions decrease through time as the panel ages. Manual or mechanical cutting or abrasion processes performed on the product can result in the generation of wood dust.
ABSORPTION WAYS	Inhalation, eye and skin contact. Ingestion: not applicable.

3. HAZARD IDENTIFICATION (SUITE) : SEE ALSO TOXICOLOGICAL INFORMATIONS (SECTION 11)

No toxicological data was indexed on this product. It is however possible to enumerate information on the products entering the composition of TafiPan panel.	
POTENTIAL ACUTE EFFECTS ON HEALTH	Formaldehyde may irritate the eyes, nose, throat and skin. Wood dust can irritate the eyes and breathing passages. Some wood species may cause skin and respiratory irritation. Cases of coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported and connected to the presence of wood dust.
POTENTIAL CHRONIC EFFECTS ON HEALTH	Formaldehyde : IARC / NTP (Group 1A) – human carcinogen. EPA (Group B10) – human carcinogen suspected. ACGIH (A2)- human carcinogen suspected. CB (K2) – human carcinogen suspected. Wood dust : IARC (Group 1) – human carcinogen. ACGIH (A1) – carcinogen effects for some hardwood species. CB (K1) – human carcinogen.

4. FIRST AID MEASURES (BY ABSORPTION WAY)

INHALATION	Formaldehyde may irritate the nose and throat. Wood dust can irritate the breathing passages. Cases of coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported and connected to the presence of wood dust Action: Seek fresh air and breathe deeply. If irritation or cough persists, consult a specialist
EYES	Formaldehyde can cause a temporary irritation or a feeling of tingling starting from a concentration of 1 PPM (REPTOX (2005-07-20)). Wood dust can cause a mechanical irritation. Action: Treat wood dust in eye like a foreign object. Flush eyes repeatedly with water. Seek fresh air. If irritation persists, consult a specialist.
SKIN	Formaldehyde solutions (liquids) and several wood species can cause allergic dermatitis for sensitive individuals. Wash the area with water and soap. Remove contaminated clothing. If the skin is irritated or if there is dermatitis, consult a specialist.

5. FIRE FIGHTING INSTRUCTION AND MEASURES

IGNITION CONDITION	Contact with a flame or a spark.
EXTINGUISHING MEDIA	Water, carbon dioxide, sand, and chemical extinguishers.
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon dioxide, aliphatic aldehydes, rosin acids, terpenes, and polycyclic aromatic hydrocarbons.
FLASHPOINT AND METHOD	Without object.
FLAMMABLE LIMITS AND EXPLOSION HAZARD	Particleboards do not present particular risks of explosion. On the other hand, the wood dust produced by sandpapering, cutting or of similar operations can present a risk of explosion raised at very high if a cloud of dust comes into contact with a source of ignition. Wood dust: Class A - material combustible L.I.L.: 40 grams per m ³ of air.
AUTOIGNITION TEMPERATURE	It is difficult to identify a specific temperature because of the broad range of products and factors implied in their manufacture. The index can vary from 200° to 280°C
DISPERSION HAZARD	To be careful: A water jet directed directly in the fibre ball can disperse the wood dust and fibres and thus spread fire.
FIRE FIGHTING INSTRUCTIONS AND EQUIPMENT	Water and carbonic gaz can be used. The foam of class A can reduce the possibility of ignition by facilitating the penetration of water. Wear respiratory protection apparatus with approved cartridges against organic and formaldehyde vapours.

6. ACCIDENTAL RELEASE MEASURES : NON APPLICABLE

7. HANDLING AND STORAGE

PRECAUTIONS	Adequate ventilation of the storage area will help reduce the build-up of the gaseous formaldehyde. It is recommended to store particleboard in an area with relative humidity and at a temperature that approximates end use.
STORAGE	Do not store under incompatible conditions or products and keep away from any source of ignition.
INCOMPATIBILITY	Oxidizing agents, open flame, high temperature, excessive moisture and contact with water.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING CONTROLS	Provide adequate general and local exhaust ventilation to keep airborne contaminant concentration levels below the applicable levels. Be sure to consider the explosive nature of the contaminants in the process of selecting control systems.
PERSONAL PROTECTIVE EQUIPMENT (PPE)	RESPIRATOR: No special precautions are required for products in purchased form. Wear NIOSH/MSHA approved respirator when the allowable exposure limits are exceeded. EYES : No special precautions are warranted for products in purchased form. Goggles or safety glasses are recommended when cutting, sawing, or sanding the product. PROTECTIVE CLOTHING (HANDS AND SKIN) No special precautions are required for products in purchased form. Gloves are recommended for handling and machining, protective clothing must be wear according to dust level. Wash any contaminated clothing before re-use.
GOOD PRACTICE AND MAINTENANCE	Apply good maintenance practices for cutting or sanding operations. Clean the places where dust is deposited in order to avoid excessive accumulation of this combustible material. Minimize operations that emit high concentrations of airborne dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION	Beige coloured solid, pale to dark according to the wood species.
ODOR	Variable according to the wood species and indirectly proportional to the age of the panel.
SOLUBILITY IN WATER (% BY WEIGHT)	Insoluble
SPECIFIC GRAVITY:	Depending on the wood species and humidity (generally < 1)
BOILING POINT	Not applicable
FLASH POINT	Not applicable
PH	Not applicable

10. STABILITY AND REACTIVITY

STABILITY	Stable under normal conditions. Temperature can increase the emission rate of formaldehyde coming from particle boards.
REACTIVITY	High temperatures, moisture raised weak exchange of air. In the case of the wood dust, avoid the contacts with the oxidizing agents, drying oils and open flame. The product can ignites at temperatures exceeding the 200° C.
HAZARDOUS DECOMPOSITION	Products of thermal decomposition, such as carbon monoxide, carbon dioxide, aliphatic acid, aldehydes of rosins, terpenes, hydrocarbons aromatic polycyclic and organic acid..
INCOMPATIBILITY	Strong acids, bases, oxidants.

11. TOXICOLOGICAL INFORMATION

ABSORPTION WAYS	Inhalation, eyes and skin contact. Ingestion: not applicable.
ACUTE EFFECTS (BRIEF EXPOSURE)	<p>Formaldehyde vapours can cause a severe irritation of the nose, the throat and the trachea. The tingling of the nose and the back of the throat occurs with exposure level of approximately 2-3 ppm. Eyes irritation can occur at approximately 1 PPM/6 minutes in the case of the formaldehyde vapours. The tingling of the eyes occurs for the majority of people at 2-3 ppm and the whimpering starting from 4-5 ppm. Abundant and intolerable tears occur at approximately 10 ppm.</p> <p>Wood dust can cause eyes, mouth, throat and skin irritation. It can also cause nasal dryness, irritation and obstruction. Various species of wood dust can cause dermatitis to people with this type of sensitivity.</p>
CHRONIC EFFECTS (PROLONGED OR REPETITIVE EXPOSURE)	<p>Formaldehyde: Carcinogenic agent 2A suspected potentially carcinogenic for human starting from limited epidemiologic evidence and of the carcinogenic results of tests on animals. Chronic exposure can cause respiratory irritation, chronic obstruction of the respiratory tracts and a deterioration of the lungs.</p> <p>Wood dust: Depending on the species, wood dust can cause dermatitis following prolonged and repeated contact. It can also cause respiratory sensitivity following prolonged exposure to high levels of dust. The IARC classifies the wood dust like a carcinogenic agent for the human ones (Group 1). This classification is based primarily on increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. The evaluation 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.</p> <p>OSHA: Hazard Rating = 3.3; moderately toxic with probable oral (soft and hard wood) lethal dose to humans being 0.55g/kg (about 1 pound for a 70 kg or 150 pound person) Regulated Hazardous Substances, Government Institutes. Inc., February 1990.</p> <p>Reproductive toxicity : There exists a Soviet report/ratio on menstrual affections and secondary sterility among women exposed to formaldehyde and with some other chemicals.</p> <p>Mutagenicity : Information on the effects on human or animals is insufficient. Positive effects were traced in the bacterial tests like in human and animal insulated cells.</p> <p>Teratogenicity : From Tafisa's knowledge, there is no information on humans. No effect was traced in animal studies.</p> <p>Synergic effect: Not known to Tafisa.</p>

12. ECOLOGICAL INFORMATION

ÉCOTOXICITY	Not applicable to product in purchased form. (See "Components Analysis below")
COMPONENTS ANALYSIS	<p>AQUATIC TOXICITY FORMALDEHYDE (CAS# 50-00-0)</p> <p>96hrs LC₅₀ 24.1 mg/L (Fathead minnow) 0.10 mg/L (bluegill)</p> <p>5 min EC₅₀ 9.0 mg/L (Photobacterium phosphorium)</p> <p>15 min EC₅₀ 6.81 mg/L (Photobacterium phosphorium)</p> <p>96h EC₅₀ 20 mg/L (water flea)</p>
ENVIRONMENTAL FATE	Not applicable to product in purchased form.

EC₅₀ Effective concentration that inhibits 50% of the control population in a determined time.
LC₅₀ Concentration of a material expected to kill 50% of an animal test group.

13. DISPOSAL CONSIDERATIONS

GENERAL PRODUCT INFORMATION	This panel product is recyclable. It is the user's responsibility to determine at the time of disposal whether the product meets any applicable criteria for hazardous waste disposal. Disposal must follow applicable federal, provincial, state and local regulations.
EPA WASTE NUMBER / DESCRIPTION ANOTHER REGULATIONS	This product in it purchased form is not considered hazardous waste under federal hazardous waste regulations 40 CFR 261 (USA) and under hazardous waste Quebec regulation Q-2, r.15.2. If the product is altered by processing, use or contamination, waste can be tested using methods described in 40 CFR 261 to determine whether the altered product meets the criteria for hazardous waste. State, provincial and local requirements for waste disposal may be different than U.S. Federal or Quebec regulations.
DISPOSAL INSTRUCTIONS	If disposed of or discarded in its purchased form, ordinary trash collection is acceptable. It is the user's responsibility to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Follow applicable federal, state, provincial and local regulations. It would be a good practice to dispose your panels in a local waste sorting and recovery centre if permitted by regulation in your state or province.

14. TRANSPORT INFORMATION

DOT (US Department of Transportation): This product is not a DOT hazardous material.
TDG (Canadian Transportation of Dangerous Goods): Not listed as a hazardous material.
PIN : not applicable
It is the purchaser's responsibility to see if this product meets any regulations depending on their location.

15. REGULATORY INFORMATION

U.S FEDERAL REGULATIONS	GENERAL PRODUCT INFORMATION										
	<p>OSHA: Wood products are not hazardous under the criteria of the Federal OSHA Hazard communication Standard 29 CFR 1910.1200. However, formaldehyde emissions and wood dust generated by sawing, sanding or machining this product may become hazardous. This product contains formaldehyde.</p> <p>HUD: The Department of Housing and Urban Development (HUD) regulation 24 CFR 3280 sets emission standards and provides for 3rd party certification of particleboard and MDF formaldehyde emissions.</p> <p>COMPONENT ANALYSIS This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).</p>										
STATE REGULATIONS	<p>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: However, it is the purchaser's responsibility to see if this product meets any regulations on another list depending on their location which could not appear on the list below.</p>										
	COMPONENT	CAS#	CA	MA	MN	NJ	PA	RI	Canada	QC	ON
	FORMALEDHYDE	50-00-0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
ALL WOOD DUST	NONE	No	No	Yes	No	Yes	Yes	Yes	No	No	

16. OTHER INFORMATIONS

DEFINITION OF ACRONYMS

ACGIH:	American Conference of Governmental Industrial Hygienists
ANSI:	American National Standards Institute
C:	Ceiling Limit
CAS:	Chemical Abstract Services Number
CERCLA:	Comprehensive Environmental Response Compensation & Liability Act
CFR :	Code of Federal Regulations
CWA :	Clean Water Act
DOT:	Department of Transportation
EC ₅₀ :	Effective concentration that inhibits 50% of control population
EPA:	Environmental Protection Agency
FDA:	Food And Drug Administration
HCS:	Hazard Communication Standard
HMIS:	Hazard Material Information System
IARC:	International Agency for Research on Cancer
LC _{LO}	Lowest lethal concentration of a substance
LC ₅₀	Concentration of a material expected to kill 50% of an animal test group
LD _{LO}	Lowest lethal dose of a material
LD ₅₀	Dose of a material expected to kill 50% of an animal test group
LEL:	Lower Explosive Limit
LFL:	Lower Flammability Limit
MSHA:	Mining Safety and Health Administration
NA:	Not Applicable
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health, U.S. Public Health Service, U.S. Department of Health and Human Services
NPRI:	Canadian National Pollution Release Inventory
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration, U.S. Department of Labour
PEL:	Permissible Exposure Limit
PPE:	Personal Protective Equipment
RCRA:	Resource Conservation and Recovery Act
RQ:	Reportable Quantity
SARA:	Superfund Amendments and Reauthorization Act
STEL:	Short Term Exposure Limit
STP:	Standard Temperature and Pressure
TC _{LO} :	Lowest concentration in air resulting in a toxic effect
TDG:	Canadian Transportation of Dangerous Goods
TLV:	Threshold Limit Value
TSCA:	Toxic Substances Control Act
TWA:	Time-Weighted Average
UFL:	Upper Flammable Limit
WHMIS:	Workplace Hazardous Material Information System

This card was carried out according to the recommendations of the CPA (Composite Panel Association), in conformity with standard ANSI Z400.1-1998 and the criteria of the SIMDUT.

REVISED AND VALIDATE BY TAFISA CANADA 2011/08/09

DISCLAIMER :

The information contained in this card is based on sources considered exact or differently correct on the technical level. The user assumes any responsibility in terms for handling and storage of this product under the terms of the legislation in progress. Tafisa Canada does not offer any guarantee and does not assume any responsibility for the damage, losses or wounds which could rise from the faith granted to any information contained in the present ones. It falls to the user always to be ensured to consult the most recent version of this card. Tafisa Canada is also released from any responsibility connected to the exactitude of the information contained in the present ones.