

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATIONS	
Common name : TAFIPAN®	
Description : Phase 2 standard CARB particleboards.	
CAS : N/A	
Material uses : Furniture, construction, lamination industry.	
Synonyms: Particleboard agglomerated paneling, rough paneling.	
<b>SUPPLIER / MANUFACTURER :</b>	<b>IN CASE OF EMERGENCY :</b>
Tafisa Canada	(819) 583-3014 (ext 333) - Security 24hrs
4660, Villeneuve	(819) 583 2930 – Front desk 8AM to 17PM
Lac-Megantic	Or call your local Emergency Health Services Center.
Quebec, Canada G6B 2C3	
Phone : (819) 583-2930	

2. HAZARDS IDENTIFICATIONS	
<b>Physical state :</b> Solid	
<b>Warning:</b> In current form, product poses no hazard. Hazards occur during transformation and shaping of the panels such as sanding and sawing operations. When sanding or sawing, wood dusts produced may cause allergic reactions and irritate respiratory tracts, skin and eyes. Avoid breathing dusts. Use personal protection equipment (PPE) as well as appropriate respiratory protection equipment for these types of tasks. Wood dusts are also known to cause industrial asthma in certain people.	
<b>Routes of entry of fine particles during transformation:</b> Inhalation, eyes and skin. Absorption through ingestion is not likely.	
<b>Potential acute health effects:</b>	
<b>Eyes</b>	Fine particles can cause mechanical irritation.
<b>Skin</b>	In case of skin sensitivity, contact with fine particles can cause light irritations such as redness and itching.
<b>Inhalation</b>	In case of respiratory sensitivity, fine particles may cause respiratory tract irritations. Dusts can cause upper respiratory tract, dryness to the nose, throat or trachea. Cases of coughing, wheezing, sneezing, sinusitis and prolonged colds were equally reported and linked to the presence of wood dusts.
<b>Ingestion</b>	Unlikely. In case of a large quantity ingestion, product may cause gastro-intestinal obstructions.

**Chronic effects and Health effects of ingredients:** See section #11 Toxicological information.

3. COMPOSITION AND INFORMATION ON INGREDIENTS		
Name	CAS	Concentration %
Wood (Woody fibres)	None	60 – 100
Formaldehyde	50-00-0	< 0.1
4,4'-Diphenylmethane diisocyanate	101-68-8	0 - 15
Ammonium nitrate	6484-52-2	0,1 - 15

*Note :*

1. This product contains ingredients known to be hazardous in concentrations lower than 0.1%, such as Formaldehyde (freed) (CAS: 50-00-0). Formaldehyde emissions conform to the CARB ATCM 93120 phase 2 law.
2. Product contains resins that are polymerized during fabrication.

4. FIRST AID MEASURES	
Eye contact	Immediately flush eyes with running water for at least 20 to 30 minutes maintaining eyelids open. Be careful not to contaminate non affected areas. Immediately consult a doctor.
Skin contact	Immediately wash affected area with soapy water and rinse abundantly with running water. Obtain immediate medical care if irritation symptoms appear.
Inhalation	If irritation symptoms appear after dust inhalation, remove victim to fresh air. Monitor vital signs and consult a doctor. If victim is no longer breathing, administer cardio-pulmonary-resuscitation (CPR). Do not use mouth-to-mouth technique if the victims face, mouth or respiratory tracts are contaminated with the substance. Administer CPR with a pocket mask equipped with a safety valve or any other appropriate medical breathing equipment. Contact emergency services immediately.
Ingestion	In case of ingestion of large quantities, DO NOT induce vomiting. Immediately consult a doctor.

*Notice to Physician:*

For cases in which a victim must consult a doctor or if emergency services are required on scene for an intervention or medical transport, provide a copy of this SDS to the victim if health condition allows it, to person accompanying victim or to emergency responder in order for the information to readily be available in the emergency room or to doctors.

5. FIRE FIGHTING MEASURES	
Flammability of the product	Product base is wood fibres. Product is combustible. It will burn if involved in a fire. Wood dusts may form an explosive mix with air in the right circumstances and concentrations.
Lower limit of explosivity	Class A - combustible material, 40 grams per m <sup>3</sup> of air (Wood dusts). Class C - ASTM E84 (Panels).
Upper limit of explosivity	Not applicable
Auto-ignition temperature	Variable, from 200°C to 280 °C (392°F to 536°F). Auto-ignition temperatures are hard to

	determine because of the large range of products and factors involved in the fabrication.
Flash point	Not applicable
Products of combustion	Carbon Dioxide (CO <sub>2</sub> ), Carbon Monoxide (CO), Ammonia (NH <sub>3</sub> ), aliphatic aldehydes, Rosin acids, Terpenes.
Fire hazards in presence of various substances	Not applicable
Fire fighting media and instructions	Firefighting method adapted to products immediate surroundings such as water, dry chemical powder, Carbon Dioxide (CO <sub>2</sub> ), sand etc.
Special note	Use water or carbonated gasses to fight fire. Class A foam may reduce fire possibilities by easing water penetration. Wear respiratory protection apparatus with formaldehyde and organic vapour approved cartridges.

### 6. ACCIDENTAL RELEASE MEASURES

Product poses no accidental spill hazards.

**Personal precautions:** Not applicable.

**Environmental precautions:** Not applicable.

**Methods for cleaning up:** Not applicable.

### 7. HANDLING AND STORAGE

Handling	Handle according to task performed with product. Apply professional and personal hygiene practices such as washing hands before eating. Ban eating, drinking and smoking in contaminated areas. Use workplace safety procedures in order to prevent accidents.
Storage	It is recommended to store product in an area where humidity is reasonable and where temperature corresponds to the room temperature where the product will be used.

### 8. EXPOSURE CONTROLS, PERSONAL PROTECTIONS

Engineering controls	Ensure proper ventilation and local exhaust in order to maintain contaminant concentrations below exposure limits. It is important to consider the nature and hazards (explosiveness) of wood dusts when selecting mechanical control systems.
Eyes	Wear safety glasses with side shields.
Respiratory	In normal handling, respiratory protection is not necessary. In case of dust emanation, wear a dust mask or cartridge mask for fine particle.
Hands	Work gloves in order to prevent cuts, splinters and abrasions.
Skin	Standard work clothing.
Other	Provide an emergency eye wash and quick drench shower in the immediate work area.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Molecular mass	Not available
Physical status	Solid
Color	Pale to dark beige color depending on type of wood.
Odour	Varies according to type of wood and indirectly proportionate to age of panel.
Odour threshold	Not available
Humidity	4% to 5 %
Density	Varies according to type of wood and humidity degree.
Freezing point	Not available
Boiling point	Not available
Vapour tension	Not available
Density of vapour	Not available
Solubility in water with saturation	Insoluble
Specific gravity @ 4°C (Water = 1)	Varies according to type of wood and humidity degree (generally <1).
Rate of evaporation	Not applicable
Volatility	Not applicable
Evaporation rate	Not applicable
pH	Not applicable

### 10. STABILITY AND REACTIVITY

Stability and reactivity	Stable. Temperature may increase the amount of Formaldehyde emissions emitted from the panels particles.
Incompatibility	Oxidizing agents, open flames and elevated temperatures. Excessive humidity and contact with water may deform product.

Hazardous decomposition products	Thermal decomposition products, such as Carbon Dioxide (CO <sub>2</sub> ), Carbon Monoxide (CO), Ammonia (NH <sub>3</sub> ), Aliphatic Aldehydes, Rosin acids, Terpenes, Polycyclic aromatic hydrocarbons and Organic acids.
Reactivity conditions	High temperatures, high humidity, low air exchange. In case of wood dusts, avoid contacts with oxidizing agents and drying oils. Avoid open flames. Product may burn in temperatures exceeding 200°C. Dusts may form an explosive mix with air in the right circumstances and concentrations.
Hazardous polymerizations	Will not occur.

### 11. TOXICOLOGICAL INFORMATION

#### Ingredient information :

#### Wood dust / Cellulose fibre :

OSHA PEL	TWA, 15.0 mg/m <sup>3</sup> (Total dust) and 5.0 mg/m <sup>3</sup> (respirable)
ACGIH TLV	TWA, 1.0 mg/m <sup>3</sup> (Some hardwoods)
ACGIH TLV	TWA, 5.0 mg/m <sup>3</sup> (Softwoods)
ACGIH TLV	STEL, 10.0 mg/m <sup>3</sup> (Softwoods)
NIOSH REL	TWA, 1.0 mg/m <sup>3</sup>
Ontario (2005)	TWA, Softwoods 1.0 mg/m <sup>3</sup> (Total dust) Hardwoods 5.0 mg/m <sup>3</sup>
British-Columbia reg. 296-297 (1997)	1.0 mg/m <sup>3</sup> K1
Quebec RQMT (2005)	TWA, 5.0 mg/m <sup>3</sup> (Total dust)
<b>Formaldehyde (CAS 50-00-0) :</b>	
OSHA PEL	TWA, 0.75 ppm
OSHA PEL	STEL, 2.0 ppm
ACGIH TLV	Ceiling at 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 value (PEL)	2.0 ppm C2

Nom	CAS #	LD <sub>50</sub>	LC <sub>50</sub>
Ammonium nitrate	6484-52-2	Rat (Oral) : 2217 mg/kg	Rat : (Inh) 88.8 mg/l
Formaldehyde	50-00-0	Rabbit (Cutaneous) : 270 mg/kg Rat (Inh) : 100 mg/kg	Rat : (Inh) 200 mg/m <sup>3</sup> (4h)

#### Routes of entry of fine particles during transformation :

Inhalation, eyes and skin. Absorption through ingestion is not likely.

#### Potential chronic health effects :

Eyes	Fine particles can cause mechanical irritation.
Skin	In case of skin sensitivity, contact with fine particles can cause light irritations such as redness and itching.
Inhalation	In case of respiratory sensitivity, fine particles may cause respiratory tract irritations. Dusts can cause upper respiratory tract dryness such as nose, throat or trachea. Cases of coughing, wheezing, sneezing, sinusitis and prolonged colds were equally reported and linked to the presence of wood dusts.
Ingestion	Unlikely. In case of a large quantity ingestion, product may cause gastro-intestinal obstructions.

#### Potential chronic health effects

Product information	Data not available
Ingredient information	<p><b>Formaldehyde (CAS : 50-00-0):</b>  <b>OHSR evaluation:</b> Suspected carcinogenic effects to humans.  <b>I.A.R.C. evaluation:</b> The agent (mixture) is carcinogenic to humans (group 1).  <b>ACGIH evaluation:</b> Suspected human carcinogen (group A2).  <b>N.T.P. evaluation:</b> The substance is recognised as a carcinogen (K).</p> <p><b>Wood dust:</b>  <b>I.A.R.C. evaluation:</b> The agent (mixture) is carcinogenic to humans (group 1).  <b>N.T.P. evaluation:</b> The substance is recognised as a carcinogen (K).  <b>ACGIH evaluation:</b> For certain hard woods, substance s classifiable as a carcinogen to humans (group A1)*.  <b>ACGIH (2007) classified:</b>  Oak and Beech as « Confirmed human carcinogens (group A1) » ;  Birch, Mahogany, Teak and Walnut « Suspected human carcinogens (group A2) » ;  All other wood dusts « Not classifiable carcinogens to humans (group A4) ».</p>

### 12. ECOLOGICAL INFORMATION

#### Ecological data for aquatic environments

Name	Results	Species	Period
Formaldehyde (50-00-0)	LC <sub>50</sub> ; 24.1 mg/l	Fat head minnow	96 hrs
	LC <sub>50</sub> ; 0.10 mg/l	Bluegill	96 hrs
	EC <sub>50</sub> ; 9.0 mg	Photobacterium phosphoreum	5 min.
	EC <sub>50</sub> ; 6.81 mg/l	Photobacterium phosphoreum	15 min.
	EC <sub>50</sub> ; 20 mg/l	Water Flea	96 hrs
Ammonium Nitrate (6484-52-2)	LC <sub>50</sub> ; 74 mg/l	Cyprinus carpio	N/A
4,4'- Diphenylméthane diisocyanate (101-68-8)	EC <sub>50</sub> ; 0.35 mg/l	Water Flea	24 hrs
Effects on environment	No predicted effects on environment.		
Environmental precautions	No specific precautions.		
Breakdown products	Data not available		
Toxicity of the biological breakdown products	Data not available		

### 13. DISPOSAL CONSIDERATIONS

Waste disposal: Dispose of waste in conformity with the federal, provincial and local laws. Product is recyclable.

### 14. TRANSPORTATION INFORMATION

Classification DOT/ IMDG/IATA label	Not regulated
DOT (Shipping)	Not applicable
UN Number	Not applicable
Class	Not applicable
Packaging group	Not applicable
Quantity index limit	Not applicable
Additional information	Not applicable

### 15. REGULATORY INFORMATION

#### GHS (Globally Harmonized System of Classification and Labelling of Chemicals) :



Not regulated

#### GHS hazard statement

None

#### GHS Precautionary statements

P281: Use personal protective equipment as required.

P401: Store in controlled temperature and humidity.

#### CANADA

WHMIS (Canada)		Not controlled
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#### ÉTATS-UNIS

NFPA Classification		Health : 0 Flammable : 0 Reactivity : 0 Specials conditions : None Legend : 4 : Severe, 3 : High, 2 : Moderate, 1 : Slightly, 0 : Not hazardous
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#### United States regulations:

##### California proposition 65 requirements:

**Warning:** Piercing, sawing, sanding or shaping wood products creates wood dusts, a substance recognized for causing cancer according to the state of California. Avoid inhaling wood dusts or use a dust mask or other personal protection measures.

##### Occupational Safety and Health Administration:

Wood products are not considered dangerous merchandise according to mentioned criteria in the Hazard Communication Standard of OSHA 29 CFR 1910.1200. However, formaldehyde emissions and wood dusts produced by sawing, sanding or shaping of the panels may be hazardous. This product contains formaldehyde.

##### Department of Housing and Urban Development:

The 24 CFR 3280 regulations by the United-States Department of Housing and Urban Development HUD define the emission standards and emits a certification emitted by a third party pour particle panels and Formaldehyde emissions emitted from MDF panels.

### Component analysis:

#### Formaldehyde (50-00-0)

SARA Section 302 (40 CFR 355 Annex A): Listed  
SARA Section 313 (40 CFR 372.65) and CERCLA (40 CFR 302.4): Listed  
SARA 302: 500 lbs TPQ  
CERCLA: 100 lbs final RQ; 45.4 kg final RQ.

#### 4,4'-Diphenylmethane diisocyanate (101-68-8)

SARA 313 Components: Listed  
Massachusetts Right To Know Components: Listed  
Pennsylvania Right To Know Components: Listed  
New Jersey Right To Know Components: Listed

#### REACH Classification (US):

ESIS - European chemical Substances Information System: Not regulated  
REACH - Registration, Evaluation, Authorisation and Restriction of Chemical substances: Not regulated

List of Registered	Phase-in Substances		Registered As :		
EC No.	CAS RN	Substance Name	Full	OSII	TII

Not regulated:

Full Indicates registration under REACH Article 10 as a full dossier.  
OSII Indicates registration under REACH Article 17 as an on-site isolated intermediate (OSII).  
TII Indicates registration under REACH Article 18 as a transported isolated intermediate (TII).  
'Yes' Indicates the substance registration under REACH is complete.  
'In Process' Indicates a dossier on the substance has been successfully submitted to ECHA and is being processed, i.e. the completeness check is pending (and could potentially be unsuccessful).

### 16. ADDITIONAL INFORMATION

Date of issue: January 30<sup>th</sup> 2015  
Supersedes: February 17<sup>th</sup> 2014  
Version : 4  
Elaborated by : Toxyscan inc., 866-780-0599

#### References

- ANSI Z400.1, MSDS Standard, 2001.
- 29CFR Part1910.1200 OSHA MSDS Requirements.
- 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. -Canada
- Gazette Part II, Vol. 122, No. 2 Registration SOR/88-64 31 December, 1987 Hazardous Products Act "Ingredient Disclosure List".
- Ingredient Disclosure List, April 2012, SOR/88-64
- Federal act on the controlled products
- Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2002.
- Toxicological repertory, HSC.
- The Globally Harmonized System of Classification and Labelling of Chemicals (GHS) <a href="http://www.hc-sc.gc.ca/a">http://www.hc-sc.gc.ca/a</a>
- Phase-in Substances Registered 7-Dec-2010.
- Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals.
- Safety data sheet from the components.

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 <sub>50</sub>	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 <sub>Lo</sub>	Lowest lethal concentration of a substance
LC <sub>50</sub>	Concentration of a material expected to kill 50% of an animal test group
LD <sub>Lo</sub>	Lowest lethal dose of a material
LD <sub>50</sub>	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 <sub>Lo</sub>	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

**Notice to reader:**

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