Trimac
PANEL PRODUCTS

4 Mar 2019

Safety Data Sheet

1 Product Identification

TRADE NAME:	This SDS contains information for Trimac MDF panels, Grooved and Striped.
SYNONYMS:	Medium Density Fiberboard (MDF) Grooved Panels
PRODUCT USES:	Wall Paneling Note that hazards are determined based on wood dust generated as a result of cutting, sanding or disturbing the product.
MANUFACTURER'S NAME:	Trimac Panel Products
ADDRESS:	2601 W 26th Ave, Vancouver, WA 98660
EMERGENCY PHONE:	(800) 424-9300 (CHEMTREC)
BUSINESS PHONE:	360-750-1561

2 Hazard Identification

Signal Word: DANGER

NOTE: This product may produce hazardous airborne levels of wood dust as a result of cutting, sanding or disturbing the product. Employees or downstream users may create potential hazards as described below:

Classification	Hazard Statement(s)	Pictogram(s)
HEALTH		
Carcinogen – Category 1 (H350)* Specific Target Organ Toxicity – repeated Exposure Category – 1 (H372)*	May cause cancer if inhaled Causes damage to organs (respiratory system, lungs) through prolonged or repeated exposure if inhaled.	
Skin corrosion/irritant – Category 2 (H315)* Specific Target Organ Toxicity – Single Exposure Category – 3 (H335)*	Causes skin irritation May cause respiratory irritation	

Serious eye damage/eye irritation – Category- 2A (H319)*	Causes serious eye irritation	
OTHER CLASSIFICATIONS Combustible Dust (OSHA Defined Hazard	If converted to small particles during further processing, handling, or by other means, may form combustible dust concentrations in air	None

*Hazard codes (GHS)

Precautionary Statements:

Prevention Statements:

- P210: Keep away from sparks, flame or other heat sources.
- P243: Take precautionary measures against static discharge.
- P260: Do not breathe dust.
- P284: Wear respiratory protection (NIOSH approved air-purifying respirator with N100, R100, or P100 filter).
- P264: Wash hands and skin thoroughly after handling.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P272: Contaminated work clothing must not be allowed out of the workplace.
- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P270: Do not eat, drink or smoke when using this product.

Response statements:

- P304 and P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P308 and P313: IF exposed or concerned: Get medical advice/attention.
- P321: specific treatment (see supplemental first-aid instruction on this label).
- P362 + P364: Take off contaminated clothing and wash it before reuse.
- P305 + P351 +P338: If in eyes, rinse cautiously for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
- P337 + P313: if irritation persists: get medical advice/attention.
- P302 + P352: if on skin: wash with plenty of water.
- P333 + P313: if skin irritation or rash occurs: get medical advice/attention.

Disposal:

- P501: Dispose of in accordance with Federal, State, and Local regulations.

Signs and Symptoms of Exposure:

Acute Health Hazards: Wood dust created by cutting, sanding or disturbing the product, can cause eye irritation, as well as respiratory irritation, nasal dryness, coughing, sneezing and wheezing as a result of inhalation.

Medical Conditions Generally Aggravated by Exposure: Wood dust created by cutting, sanding or disturbing the product, may aggravate pre-existing respiratory conditions or allergies.

3 Composition and Information on Ingredients

Ingredients	CAS #	Wt %
Wood (wood dust, wood fibers)	N/A	88-100
Resin Solids: Polymeric Urea-Formaldehyde	9011-05-6	8 - 12
Slack Wax, petroleum	64742-61-6	<1
Ammonia (see section 7) (NH_3)	7664-41-7	<1
PVAc	9003-20-7	<1
EVAc monomer	108-05-4	<1 *
2-(2-ethoxyethoxy)ethyl acetate	112-15-2	<1
Methanol	67-56-1	<1
Titanium dioxide	13463-67-7	<1
Amorphous silica	11926-00-8	<1
Synthetic amorphous silica	7631-86-9	Trace
Iron Oxide	1309-37-1	Trace
Carbon Black	1333-86-4	Trace
1,2-benzisothiazolin-3-one	2634-33-5	Trace

Notes: Percentages are by weight.

*Specific chemical identity and/or exact present of composition is being withheld as a trade secret.

Concentration of ingredients is presented according to WHMIS. Other compounds present are polymeric MDI (insignificant concentration in the final product) which is used to bond of wood fiber together. The hazards presented for MDF products pertain to wood dust from softwood, allergenic and nonallergenic species. No CAS Number is available.

Panel covering is a composite product (paper sheet produced by printing procedure using printing ink) which contains Cellulose, Titanium Dioxide, Ink Pigment and a Coating Resin. The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret in accordance with Paragraph 1910.1200 of Title 29 of the Code of Federal Regulations.

There are no additional gradients presence which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4 First Aid Procedures

Description of first aid measures

Inhalation – inhalation information pertains to dust created or generated by processing or disturbance (cutting, sanding) of the product. If breathing is difficult, remove victim to fresh air, keep at rest in a position comfortable for breathing, loosen clothing as necessary. Seek medical help if severe cough or other symptoms appear.

Skin Contact – Wood dust can elicit allergic contact dermatitis in sensitized individuals and can cause mechanical irritation. Rinse/flush exposed skin gently using soap and water for 15-20 minutes. Take off contaminated clothing and wash before reuse. Seek medical help if rash, irritation, or dermatitis persists.

Skin Absorption: Not Known to be absorbed through the skin.

Eye Contact – Treat dust in eye as a foreign object. Rinse/flush exposed eye(s) with water to remove dust particles. Remove contact lenses if present and easy to do so. Avoid touching or rubbing eyes to avoid further irritation or injury. Seek medical help if irritation persists.

Ingestion – Washout mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If conscious, give a glass of water. Stop if the exposed person feel sick as vomiting may be dangerous. Do not induce vomiting because of danger of aspiration into lungs, unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low, so the vomit does not enter the lungs. Get medical advice/attention if you feel unwell or are concerned.

First-aid comments - Provide general support of measures (comfort, rest, warmth). If exposed or concerned, get medical advice/attention.

Most important symptoms and effects, acute and delayed

Information pertains to wood dust. If exposed to excessive amount of dust: May cause mechanical irritation of the eyes, nose and throat. May cause genetic defects or cancer. Can cause lung injury or damage to other organs thru prolonged or repeated exposure. Dust can cause physical obstructions in the nasal passages. Symptoms may include dry coughing, shortness of breath, difficult breathing and tightness in the chest. May cause asthma or an asthma – like reaction in some people. Repeated or prolonged exposure can irritate the skin. May cause an allergic skin reaction in some people. Suspected of damaging fertility or damaging unborn child.

Unique delayed effects are not anticipated after exposure. See Section 11 for additional information on chronic effects.

Immediate medical attention and special treatment

Target Organs – eyes, skin and respiratory system.

Special instructions – not available based on the literature reviewed.

Medical conditions aggravated by exposure – no information on the pure product is available based on the literature reviewed. Information based on the ingredients indicate pre-existing skin and respiratory conditions.

5 Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media: Use appropriate fire suppression agent suitable for surrounding fire (Class A): water spray or fog, dry chemical powder, chemical foam, or carbon dioxide.

Unsuitable Extinguishing Media: No data available.

Auto-ignition Temperature: Variable (typically 400 to 500 degrees F (204 – 260 degrees C)

Specific hazards arising from the chemical – Fire Hazard: Solid material is not considered flammable but may burn at high temperatures. Combustible dust produced from cutting, sanding, or disturbing the product: May form combustible dust concentration in air. Hazardous and thermal combustion products include: carbon monoxide, nitrogen oxides, carbon dioxide, suet, and toxic and irritating fumes and gases, such as aliphatic aldehydes, terpenes, organic acids, polycyclic aromatic hydrocarbons and polynuclear aromatic compounds.

Unusual fire and explosion hazards: Depending on moisture content, particle diameter and concentration, wood and resin dusk may pose a flash fire or deflagration hazard. If suspended in air in an enclosure or container and ignited, and explosion may occur due to the development of internal pressure causing rupture. An airborne concentration of 40 g (40, 000 mg) of dust per cubic meter of air is often used as the Minimum Explosive Concentration (MEC) for wood dusts. Conduct regular housekeeping inspections and cleaning to prevent excessive dust accumulations. Design and maintain control equipment to minimize fugitive combustible dust emissions. Ensure that ventilation systems are operating properly to capture, transport and contain contestable dust while controlling ignition sources. Reference NFPA 652 "Standard on the Fundamentals of Combustible Dust".

Advice for firefighters: Use NIOSH-approved respiratory protection/breathing apparatus. Fight fire from a safe distance or a protected location. Approach fire from up wind to avoid hazardous vapors or gases. If entry into area is required wear positive pressure SCBA and full Bunker Gear.

Additional Information (precautions): Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Wood dust from sawing, sanding, or machining can be explosive in the presence of an ignition source depending on the particle size and moisture content. Airborne concentrations of 40 grams per cubic meter are often used as the lower explosive limit (LEL) for wood dusts. Use water spray or fog to prevent dust formation and minimize risk of explosion.

6 Accidental Release Measures

Personal precautions and emergency procedures

Information is based on wood dust created by cutting, sanding or disturbing the product.

Personal Precautions – Do not breathe dust.

Emergency Procedures - No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. In conditions where wood dust is generated: Ventilate the area.

Environmental Precautions – No known significant environmental effects. It is good practice to prevent releases into the environment. If a large quantity of dust is inside a building, prevented from entering the drains, public waters, ventilation systems and confined areas.

Methods and materials for containment and cleaning up – Based on wood dust: Review Section 7 (Handling) of this safety data sheet before proceeding with cleanup. Dust generated from sawing, sanding, drilling, or routing operations may be vacuumed or shoveled for recovery or disposal. Wood dust clean-up and disposal activities should be accomplished in a manner to minimizes creation of airborne dust, use of pneumatic powered air hoses to blow away dust is NOT recommended. Use

approved filtering face piece respirator ("dust mask") or higher levels of respiratory protection as indicated and goggles where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort. Place recovered wood dust in a container for proper disposal.

7 Handling and Storage

No special handling procedures are required for the undisturbed product. The following information is based on wood dust; avoid generating dusts.

Handling – Avoid breathing dust. Avoid contact with skin, eyes, and clothing. Remove and wash contaminated clothing before re-use. Wash exposed skin thoroughly after handling. Wear appropriate personal protective equipment as described in Section 8.

General hygiene considerations: Do NOT smoke in work areas. Do NOT eat, drink or store food in work areas. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area.

Caution: This product may admit minor amounts of ammonia which may cause coughing, and eye/nose/throat irritation. The emission rate decreases rapidly following the manufacturing process. Ammonia emissions may accumulate in enclosed areas. An assessment of potential exposure should be conducted, and precautions should be taken based on the conditions of storage. Evaluate the risk and follow personal protective recommendations in Section 8 following an exposure evaluation.

Storage and Handling Practices – Wood dust may pose a combustible dust hazard. Keep away from ignition sources. Avoid contact with oxidizing agents and drying oils. Avoid open flame. Comply with all applicable health and safety regulations, fire and building codes.

8 Exposure Control Measures, Personal Protection

Ingredient(s)	Agency	Exposure Limit(s)	Comments
Wood Dust (softwood, allergenic and non—allergenic species)	OSHA	PEL-TWA 15 mg/m^3 (see Note belos)	Total Dust (PNOR)
Wood Dust (softwood, allergenic and non—allergenic species)	OSHA	PEL-TWA 5 mg/m^3	Respirable dust fraction (PNOR)
Wood Dust (softwood, allergenic and non—allergenic species)	NIOSH REL	PEL-TWA 1.0 mg/m^3	
Wood Dust (softwood, allergenic and non—allergenic species)	ACGIH	TLV-TWA 1.0 mg/m^3	Inhalable fraction
Resin Solids: Polymeric Urea-Formaldehyde	OSHA	PEL-TWA 0.75 ppm	Free gaseous formaldehyde
Resin Solids: Polymeric Urea-Formaldehyde	OSHA	PEL-STEL 2 ppm	Free gaseous formaldehyde
Resin Solids: Polymeric Urea-Formaldehyde	ACGIH	TLV-(C) 0.3 ppm	Ceiling Limit
Ammonia (NH_3)	OSHA	TWA: 35 mg/m^3 (or 50 ppm) 8 hours	None
Ammonia (NH_3)	ACGIH	STEL: 24 mg/m^3 (or 35 ppm) 15 minutes	None

Ammonia (NH_3)	ACGIH	TWA: 17 mg/m^3 (or 25 ppm) 8 hours	None
Methanol	ACGIH	TWA: 200 ppm	None
Methanol	ACGIH	STEL: 250 ppm	None
Methanol	OSHA Z-1	TWA: 200 ppm (or 260 mg/m^3)	None
Methanol	OSHA PO	STEL: 250 ppm (or 325 mg/m^3)	None
Methanol	OSHA PO	TWA: 200 ppm (or 260 mg/m^3)	None
Titanium dioxide			None
Amorpheus silica			None
Synthetic amorphous silica	ACGIH TLV	TWA: 10mg/m^3 8 hours	
Synthetic amorphous silica	OSHA OEL	TWA: 80mg/m^3 8 hours	
Iron oxide	NOSH REL	TWA: 5mg/m^3, (as FE) 10 hours	
Iron oxide	OSHA PEL	TWA: 10mg/m^3 8 hours	
Iron oxide	ACGIH TLV	TWA: 5mg/m^3 8 hours	Respirable fraction
Iron oxide	OSHA PEL 1989	TWA: 5mg/m^3 8 hours	Respirable fraction
Iron oxide	OSHA PEL 1989	TWA: 10mg/m^3 8 hours	Total Dust
Iron oxide	OSHA PEL 1989	STEL: 10 ppm, (as FE) 15 minutes	Total Particulates
Carbon black	ACGIH TLV	TWA: 3mg/m^3 8 hours	
Carbon black	OSHA PEL	TWA: 3.5mg/m^3 8 hours	
1,2-benzisothiazolin-3-one			None

Note: The OSHA PEL of 15 mg/m^3 is for total dust (particulates not otherwise classified (PNOC)) and has a TWA exposure limit of 5 mg/m^3 for the respirable fraction.

Note: Allergenic and non-allergenic software species have an IARC 1 notation (carcinogenic to humans). All softwood dusts have an ACGIH A4 notation (not classifiable as a human carcinogen). The product may be hazardous if disturbed to create dust (e.g. sanding, cutting). Exposure controls are recommended based on wood dust of softwood, allergenic and non-allergenic species.

Note: these products may contain free formaldehyde (1%, wt %), which may be released depending on concentration environmental conditions. Chamber studies have been conducted by Weyerhaeuser which have shown that the finished product off – gas levels below 0.13 ppm.

Consult local authorities for provincial or state exposure limits.

ENGINEERING CONTROLS

For large-scale use of this product (industrial manufacturing): engineering methods to control hazardous conditions (dust) are preferred. Methods include mechanical ventilation (dilution and local exhaust), process or personal exposure, control of process conditions, and process modification (e.g. substitution of a less hazardous material). Cutting and machining a product should preferably be done outdoors or with adequate ventilation and containment.

Do not allow dust from the product to accumulate in the air in work or storage areas, or in confined spaces. Exhaust dust directly to the outside through explosionproof ducting / ventilation systems, taking any necessary precautions for environmental protection. Use explosion-proof ventilation equipment to assure airborne levels are below established exposure limits.

MECHANICAL (GENERAL): Provide general ventilation in processing and storage areas so that exposure limits are met.

SPECIAL - ensure that exhaust ventilation and material transport systems involving and handling this product contain explosion relief vents or suppression systems designed and operated in accordance with applicable standards if the operating conditions justify their use. Assess concentrations of ammonia released from the freshly manufactured products to determine if additional ventilation would be required.

If engineering controls, administrative controls, and work practices are not effective in controlling exposure to dust from this product, then wear suitable personal protective equipment including approved respiratory protection.

PERSONAL PROTECTION

Respirator:	In operations where dusts exceeding the established exposure limits are generated, use a NIOSH approved respirator that has been selected by an industrial hygienist or other technically qualified person for the specific work conditions.
Eye Protection:	Wear safety glasses with side shields, protective googles or vented Safety goggles. Approved goggles or tightfitting safety glasses are recommended when excessive exposures to dust may occur (e.g. during cleanup) and when eye irritation may occur.
Gloves:	No special requirements. Ordinary work gloves.
Clothing:	Wear easily washable clothing. Outer garments which cover the arms may be desirable in extremely dusty areas. Wash clothing after each shift, or more often if clothing becomes contaminated.
Hygiene Measures:	Always observe good personal hygiene measures, such as washing after handling the materials and before eating, drinking, and/or smoking. Routinely wash protective equipment to remove contaminants.
Other:	Eye Wash

9 Physical and Chemical Properties

Appearance (physical state, color):	Light brown – yellow	Odor:	No Information Available
Physical State:	Solid	Odor Threshold:	No Information Available
Molecular Formula	Not available	Critical Temperature	Not available
Molecular Weight:	Not Available	pH-Value:	No Information Available
Melting Point/Freezing point	Not applicable/Not applicable	Boiling Point/Boiling Range:	No Information Available
Flash point:	No Information Available	Evaporation Rate:	No Information Available
Flammability:	No Information Available	Explosion limit lower: Explosion limit upper:	40 g/m^3 Variable
Vapor pressure:	No Information Available	Vapor density (Air = 1):	No Information Available
Relative density (water = 1):	< 1	Water Solubility:	Insoluble in water
Specific Gravity:	<1 (est.)	Solubility:	Insoluble in water; Not available (in other liquids)
Auto/Self-ignition temperature:	Autoignition, LEL and UEL for wood dust vary with exact composition, particle size, moisture level, rate of heating and dust concentration (typically 400^0-500^{0}F (204^0-260^{0}C))	Decomposition temperature:	No Information Available
Viscosity:	a. Kinematic: not applicable b. Dynamic: not applicable	Density:	0.40 – 0.80, variable depends on wood species and moisture

10 Stability and Reactivity

Reactivity: Wood dust from softwood, allergenic and nonallergenic species: Not reactive under normal conditions of use. Reactive with oxidizing materials. Combustible in the presence of open flames, sparks and static discharge. Airborne wood and resin dust may be ignited by a static discharge depending on airborne concentrations, particle size and moisture content (for wood particles).

Stability: Wood dust from softwood, allergenic and nonallergenic species is normally stable.

Decomposition Products: under normal conditions of storage and use, hazardous decomposition products should not be produced. Natural decomposition of organic materials such as wood may

produce toxic gases and an oxygen deficient atmosphere in enclosed or poorly ventilated areas. Spontaneous and rapid hazardous decomposition will not occur. If a fire occurs, hazardous combustion products will be emitted: carbon monoxide, carbon dioxide, volatile hydrocarbons, soot, and other possibly toxic and irritating fumes/gases, such as aldehydes, organic acids and polynuclear aromatic compounds.

Materials to which substance is incompatible: Avoid contact with strong acids, bases, oxidizing agents and drying oils. Corrosivity to metals: no information is available for the pure product or ingredients based on the literature reviewed.

Hazardous Polymerization: Will not occur.

Possibility of hazardous reactions: Softwood, allergenic and nonallergenic species: None expected under normal conditions of storage in use.

Conditions to avoid: Contact with incompatible materials and ignition sources. Softwood, allergenic and nonallergenic species: Generation of dust through cutting, sanding or disturbing the pure product. Open flames, sparks, static discharge, heat and other ignition sources. May form explosive dust – air mixtures. Temperatures above 399°F.

11 Toxicological information

The toxicity of wood products pertains to the dust created or generated by the processing or disturbance (cutting, sanding) of the raw product.

Likely Routes of Exposure	Inhalation; skin contact; eye contact.
Skin Corrosion/Irritation	No information is available for the pure product based on the literature reviewed. Ingredients with information available is presented; Softwood, allergenic and nonallergenic species – Handling and/or processing this material may generated dust which can cause irritation of the skin. Potential symptoms include dermatitis.
Serious Eye Damage/Irritation	No information is available for the pure product based on the literature reviewed. Ingredients with information available is presented; Softwood, allergenic and nonallergenic species – Handling and/or processing this material may generated dust which can cause irritation of the eyes.
Aspiration Hazard	Not applicable.
Respiratory and/or Skin Sensitization:	If exposed to excessive amount of dust: May cause an allergic skin reaction
Acute Toxicity:	Acute Oral Toxicity estimate: >5,000 mg/kg (method: Calculation method) Acute Inhalation Toxicity estimate: >40mg/l, Exposure time 4 h, Test atmosphere: vapor. (method: Calculation method) Acute Dermal Toxicity estimate: >5,000 mg/kg (method: Calculation method)
Chronic Toxicity:	The NTP and IARC classify wood dust as a carcinogen. Wood dust, depending on the species, may cause allergic contact dermatitis and respiratory sensitization with prolong repetitive contact or exposure to elevated dust levels. Prolonged exposure (depending on the species) of wood dust has shown to be associated with nasal cancer.

Chronic Effects	Any acute symptoms may be aggravated
Symptoms	May include redness, drying, cracking of the skin, gastrointestinal and respiratory discomfort.
Germ Cell Mutagenicity:	If exposed to excessive amount of dust: May cause genetic defects
Single Target Organ Toxicity (STOT) – Single Exposure:	Inhalation – No information is available for the pure product based on the literature reviewed. Ingredients with information available is presented; Softwood, allergenic and nonallergenic species – Handling and/or processing this material may generated dust which can cause respiratory tract irritation, asthma, coughing/wheezing, allergic reactions and sinusitis. Skin absorption – No information is available for the pure product based on the literature reviewed. Ingestion – No information is available for the pure product based on the literature reviewed.
Single Target Organ Toxicity (STOT) – Repeated Exposure:	No information is available for the pure product based on the literature reviewed. Ingredients with information available is presented; Softwood, allergenic and nonallergenic species – Repeated inhalation of dust can produce varying degrees of respiratory irritation or lung damage. Chronic exposure to wood dust can result in dermatitis reactions, asthma, the pneumonitis, coughing, changes in nasal mucosa, wheezing, fever and other signs and symptoms associated with chronic bronchitis.
Reproductive Toxicity:	Development of Offspring: If exposed to excessive amount of dust: suspected of damaging the unborn child. Sexual Function and Fertility: If exposed to excessive amount of dust: suspected of damaging fertility. Effects on or via Lactation: No Information Available.
Toxicity data:	No specific information available for product or material and purchased form. Individual component information is listed below. Components: Wood dust (softwood or hardwood): Dust generated from sawing, sanding or machining the product may cause respiratory irritation, nasal dryness and irritation, coughing and sinusitis. NTP and IARC (Group 1) classify wood dust as a human carcinogen. Formaldehyde: Human inhalation TC_{L0} of 17 mg/m^3 for 30 minutes produced eye and pulmonary results; human inhalation TC_{L0} of 300 ug/m^3 produce nose and central nervous system results: LC_{50} (rat, inhalation) = 1,000 mg/m^3, 30 minutes; LC_{50} (mice, inhalation) = 400 mg/m^3, 2 hours. NTP and IARC (Group 1) classify formaldehyde as a human carcinogen. Ammonia: LC_{50} (rat, inhalation) = 2,000 ppm 4 hr. Methanol: Acute Oral Toxicity: LD50 Oral Rat: 5,628 mg/kg, Acute Inhalation Toxicity: LD50 rat: 83.2 mg/l Exposure time 4 h.
Interactive Effects	No Information Available
Carcinogenicity:	All softwood dusts have an ACGIH A4 notation (Not Classifiable as a Human Carcinogen).

	Wood Dust – NTP: According to its Report on Carcinogens, 14th Edition, NTP states, "Wood dust is known to be a human carcinogen based on sufficient evidence of carcinogenicity studies in humans". An association between wood dust exposure and cancer in the nasal cavity has been observed in many case reports, cohort studies, and case-control studies that specifically addressed nasal cancer. Strong and consistent associations with cancer nasal cavities and paranasal sinuses were observed both in studies of people whose occupations are associated with wood dust exposure and in studies that directly estimated wood dust exposure. 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 significant evidence to associate cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum with exposure to wood dust. There is an adequate evidence for the carcinogenicity of wood dust in studies in experimental animals according to NTP. **Wood Dust: IARC – Group 1:** Carcinogenic to humans; sufficient evidence of carcinogenicity. This classification is primarily based on study shown an association between occupational exposure to wood dust and adenocarcinomas to the nasal cavities and paranasal sinuses. IAR C did not find sufficient evidence of an association between occupational exposure to wood dust and cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum. **Formaldehyde: NTP:** according to its Report on Carcinogens, 14th edition, NTP states, formaldehyde (gas) is known to be a human carcinogen based on sufficient evidence of carcinogenicity from studies in humans and supporting data on mechanisms of carcinogenesis. **Formaldehyde: IARC – Group 1:** Carcinogenic to humans, sufficient evidence of carcinogenicity. A working group of IARC has determined that there is sufficient evidence that formaldehyde causes nasal nasopharyngeal cancer in humans, a rare cancer in developed countries and "strong but not sufficient evidence" for leukemia. However, numerous epidemiological studies have failed to demonstrate a relationship between formaldehyde exposure and nasal cancer or pulmonary diseases such as emphysema or lung cancer.

Note: Weyerhaeuser evaluated the studies referenced in the ACGIH TLV Documentation for Wood Dust and others which included potential allergenic references for wood species which may cause skin or respiratory sensitization. There are a limited number of studies of highly variable consistency which reference sensitization from some species of wood. When the total weight of evidence is considered this product is considered an eye, skin and respiratory irritant and not a respiratory or skin sensitizer according to health hazard classification criteria.

12 Ecological information

All work practices must be aimed at eliminating environmental contamination.

Environmental Stability: Wood dust in soil contact will degrade readily.

Effect of Material on Plants or Animals: No evidence is currently available on wood dust effects on plants and animals. Wood dust may contain ingredients that are considered hazardous.

Effect of Chemical on Aquatic Life: No evidence is currently available on wood dust effects on aquatic life. Wood dust may contain ingredients that are considered hazardous to aquatic organisms.

Component: Formaldehyde.	
96 hr LC_{50} Fathead Minnow	24 mg/L
96 hr LC_{50} Bluegill	0.10 mg/L
5 min EC_{50} Photobacterium phosphoreum	9 mg/L
96 hr EC_{50} Water flea	20 mg/L
Component: Methanol.	
96 hr LC50 Flathead Minnow (static test)	>100mg/l

Mobility and soil: no information is available.

Toxicity: no information is available.

Persistence and degrade ability: Wood in this product would be expected to be biodegradable.

Formaldehyde: Trace amounts of free formaldehyde may be released to the atmosphere and would be expected to be removed in the atmosphere by direct photolysis and oxidation by photochemically produced hydroxyl radicals (half-life of a few hours). In the aqueous phase formaldehyde biodegradation is expected to take place in a few days.

Ammonia: LC_{50} fish, 0.44mg/L (Exposure time: 96 hr – Species: Cyprinus).

Bio-accumulative Potential: Not expected to bio-accumulate

Other Adverse Effects: no information is available

13 Disposal Considerations

Preparing wastes for Disposal: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. Wood Dust is not considered hazardous waste under Federal Hazardous Waste Regulations 40CFR261. This material could become hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

14 Transport information

DOT: Not Regulated TDG: Not Regulated IMDG or IATA: Not Regulated

IMO (Marine): Not Regulated

Environmental Hazards (marine pollutant): not applicable.

Special precautions for user: Please note: No information is available based on the literature reviewed.

Transportation in Bulk According to Annex II of MARPOL 73/78 and the IBC code: not applicable

Emergency Response Guide Number: no information is available for the pure product.

15 Regulatory Information

Safety, Health and Environmental Regulations

Wood and wood products are exempt from WHMIS reporting requirements and classification and disclosure is voluntary on SDS. GHS reporting requirements are based on the intended use of the product.

Canada

WHMIS Classification - Class D2A; D2B: Wood and products made from wood are exempt from the WHMIS per the Hazard Products Act. However, wood dust is considered to be a controlled product:

D2A – (wood dust and formaldehyde) Very Toxic (Carcinogenicity);

D2B – Toxic (Skin irritant; Eye irritant). This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Domestic Substances List (DSL)/non-domestic Substances List (NDSL) – Urea – formaldehyde resin is on the Canadian domestic substances list.

CEPA - National Pollution Release Inventory (NPRI) – Not Listed.

United States (USA)

Additional USA Regulatory Lists'

EPA SARA Title III –

Section 302 EPCRA Extremely Hazardous Substances (DHS): not applicable

Section 304 CERCLA Hazardous Substances: Formaldehyde reportable quantity (100 pounds RQ) is on the CERCLA chemical substance inventory.

Section 311/312 Hazard Category: "This material has been reviewed according to the EPA" Hazard Categories" promulgated under Sara Title III Sections 311 and 312 and is considered, under applicable definitions, to meet the following categories:

An immediate (acute) health hazard	Yes
A delayed (chronic) health hazard	Yes
A corrosive hazard	No
A fire hazard	No
A reactivity hazard	No
A sudden release hazard	No

Section 313 EPCRA toxic substances: Supplier Notification: This product contains a toxic chemical or chemicals subject to the reporting requirements of section 313 of (Title) III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372. MDI reportable quantity is 5000 pounds. Formaldehyde: This product may contain

formaldehyde at de minimis concentrations (<0.1%) and is not subject to the Sara Title III Section 313 supplier notification requirements.

Chemical: MDI CAS #: 101 – 68 – 8 Percent by Weight: Non-detectable (<0.004%)

Chemical: 2-(2-ethoxyethoxy)ethyl acetate CAS#112-15-2

RCRA (hazardous waste code): not applicable

TSCA (Toxic Substances Control Act): All ingredients are listed on the TSCA Registry.

OSHA: Wood products are not hazardous under the criteria of the federal OSHA Hazard Communication Standard (29 CFR 1910.1200). However, wood dust generated by sawing, sanding or machining activities is considered a hazardous chemical.

CAA: The following chemicals are listed as HAP undet the US Clean Air Act, Section12 (40 CFR 61: 2-(2-ethoxyethoxy)ethyl acetate CAS: 112-15-2

US state notifications and warnings:

California Proposition 65: This product may contain formaldehyde, which depending on temperature and humidity, may be omitted from this product. Weyerhaeuser has evaluated formaldehyde emission rates from its products and have found these rates to be below the significant risk level. **Warning:** Drilling, sawing, sanding or machining wood products generates wood dust, a substance known to the state of California to cause cancer. This product may evolve (particularly during the manufacturing process) methanol vapors in trace amounts, a chemical known to the state of California to cause birth defects and other reproductive harm.

New Jersey Identification: Right to Know Warning: MDI; this product may contain formaldehyde which, depending on temperature and humidity, may be emitted from the product. When cut or otherwise machined, the product may have met wood dust. Formaldehyde, wood dust and methanol, or substances which appears on New Jersey's Environmental Hazardous Substance List.

Pennsylvania Identification: Right to Know Warning: This product may contain formaldehyde which, depending on temperature and humidity, may be emitted from the product. When cut or otherwise machined, the product may emit wood dust. Formaldehyde, methanol and wood dust appear on Pennsylvania's appendix A, Hazardous Substance List.

Minnesota Identification: Right to Know Warning: MDI; wood dust

Massachusetts Identification: Right to Know Warning: MDI

16 Other information

HMIS Rating: Health – 2* Flammability – 1 Physical Hazard - 0

NFPA Rating: Health – 2 Flammability – 2 Instability – 0

*Ingredients of Unknown Acute Toxity (>1%): NAP

Refer to NFPA Standards 654 and 664 for Safe Handling.

NFPA 654 Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids.

NFPA 664 Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities

Users **responsibility:** The information contained in this safety data sheet is based on the experience of occupational health and safety professionals and comes from sources believed to be accurate or otherwise technically correct. Trimac Panel Products believes the information contained in this SDS to be accurate at the time of preparation and has been compiled using sources believed to be reliable. However, Trimac Panel Products 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, and federal regulations concerning use of this product. It is the further responsibility of the buyer to research and understand safe methods of storing, handling, and disposal of this product. The user has the responsibility to ensure that the most current SDS is used.

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DEFINITION OF COMMON TERMS:

A4	Not classifiable as a human carcinogen
ACGIH	American Conference of Governmental Industrial Hygienists
C	Ceiling Limit
CAS#	Chemical Abstracts System Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
DOT	U.S. Department of Transportation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
I	Inhalable Fraction
IARC	International Agency for Research on Cancer
MDF	Medium Density Fiberboard
MDI	No – added formaldehyde containing binder (4, 4'-methylenediphenyl diisocyanate)
N/A	Not applicable
NIOSH	National Institute for Occupational Safety and Health
NFPA	National Fire Protection Association
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration

PEL	Permissible Exposure Limit
PNOR	Particulate Not Otherwise Regulated
RCRA	Resource Conservation and Recovery Act
REL	Recommended Exposure Limit
SARA	Superfund Amendments and Reauthorization Act
STEL	Short-Term Exposure Limit (15 Minutes)
TDG	(Canada) Transportation of Dangerous Goods
TLV	Threshold Limit Value
TLX	Total Limits of Exposure
TSCA	Toxic Substance Control Act
TWA	Time Weighted Average (8 Hours)
WHMIS	Workplace Hazardous Materials Information System
Wt%	Weight Percentage