

Safety Data Sheet

1 Product Identification


TRADE NAME:	Trimac Plywood Panels
SYNONYMS:	Plywood Wood Paneling with Painted Grooves
PRODUCT USES:	Paneling
MANUFACTURER'S NAME:	Trimac Panel Products
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2 Hazard Identification

Signal Word: DANGER

Wood Dust Caution: Sawing, sanding or machining wood products can produce wood dust, which can cause a flammable or explosive hazard. In addition, wood dust may cause lung, upper respiratory tract, eye and skin irritation. Some wood species may cause dermatitis and/or respiratory allergic effects. In 2009, the state of California added wood dust to proposition 65's list of chemicals known to cause cancer and require the following warning to be posted:

Warning: Drilling, sawing, sanding or machining wood products generates wood dust, a substance known to the state of California to cause cancer. Avoid inhaling wood dust or use a respirator or other safeguards for personal protection.
(California Health and Safety Code Section 25249.6)

Classification	Hazard Statement(s)	Pictogram(s)
HEALTH		
Carcinogen – Category 1A (H350)*	Inhalation exposure to dust may cause cancer.	
Respiratory Sensitization – Category 1 (H334)*	Dust from some wood species may cause allergy or asthma symptoms or breathing difficulties if inhaled	
Specific Target Organ Toxicity Repeated Exposure - Category 1 (H372)*		

<p>Skin Sensitization – Category 1 (H316)*</p>	<p>Wood dust may cause an allergic skin reaction.</p>	
<p>Eye Irritation Category- 2B (H320)*</p>	<p>Wood dust causes eye irritation</p>	<p>None</p>
<p>OTHER CLASSIFICATIONS Combustible Dust (OSHA Defined Hazard</p>	<p>If small particles are generated during further processing, handling or by other means, would may form combustible dust concentrations in air.</p>	<p>None</p>

*Hazard codes (GHS)

Precautionary Statements for Wood Dust/Codes (GHS):

General Statements:

- P101: If medical advice is needed, have product container or label at hand.
- P102: Keep out of reach of children.
- P103: Read label before use.

Prevention Statements:

- P201: Obtain special instructions before use.
- P202: Do not handle dust until all safety precautions have been read and understood.
- P260: Do not breathe dust.
- P264: Wash exposed skin and eyes thoroughly after handling dusts.
- P270: Do not eat, drink or smoke when using this product.
- P272: Contaminated work clothing should not be allowed out of the workplace.
- P280: In case of inadequate ventilation, wear an approved respirator suitable for conditions of use.
- P284: In case of an adequate ventilation wear respiratory protection.

Response Statements:

- P302 + 352: If on skin: Wash with plenty of soap and water.
- P304 + 340: If inhaled: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P308 + 311: If exposed or concerned: Get medical advice/attention.
- P314: Get medical advice/attention if you feel unwell.
- P321: Specific treatment, see supplemental first-aid information.
- P333 + 313: If skin irritation or rash occurs: Get medical advice/attention.
- P342: If experience respiratory symptoms: call a Poison Center or doctor/physician.
- P363: Wash contaminated clothing before reuse.

Storage & Disposal:

- P405: Store locked up

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

Signs and Symptoms of Exposure:

Acute Health Hazards: Wood dust can cause eye irritation. Certain species of wood dust can elicit allergic contact dermatitis in sensitized individuals. Wood dust may cause respiratory irritation, nasal dryness, coughing, sneezing and wheezing as a result of inhalation.

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

Medical Conditions Generally Aggravated by Exposure: Wood dust may aggravate pre-existing respiratory conditions or allergies.

Other:

- The product may release small quantities of formaldehyde in gaseous form. Emissions decreased through time as the panel ages.
- Waste, as defined in Directive 206/12/EC, is not subject to classification, labeling and packaging requirements in 208/1272/EC.
- May form combustible dust concentrations in air.
- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

3 Composition and Information on Ingredients

Ingredients	CAS #	Wt %
Wood (wood dust, wood fibers)	N/A	75 – 92%
Formaldehyde	50-00-0	Less than 20%
Cured Resin Solids	N/A	5-15%
Titanium dioxide	13463 – 67 – 7	≤1%
Amorphous silica	112926 – 00 – 8	Trace
Synthetic amorphous silica	7631-86-9	Trace
Iron oxide	1309-37-1	Trace
Carbon Black	1333-86-4	Trace
Ethyl Alcohol	64-17-5	Trace
Ammonia	7664-41-7	Trace
2-amino-2-methylpropanol	124-68-5	Trace
2-butoxyethanol	111-76-2	Trace
Sodium hydroxide	1310-73-2	Trace
Aromatic solvent	-	Trace
2-ethylhexan-1-ol	104-76-7	Trace
Xylene, mixed isomers	1330-20-7	Trace

Percentages are by weight

CALIFORNIA RESIDENTS: This product contains one or more chemicals known to the State of California to cause cancer, birth defects, and other reproductive harm.

Additives or impurities: Particulates generated by machining wood may also include a small percentage of particulates from a proprietary resin as well as paint. The presence of these particulates is <15% of

the total dust anticipated to be generated and does not increase or otherwise change the hazards associated with this material.

4 First Aid Procedures

Description of first aid measures

Inhalation – IF INHALED: Depending on species, wood dust may cause irritation to nose, throat; nasal dryness; coughing, sneezing, wheezing. Some wood species are sensitizer's and may cause asthma. If irritation occurs, remove to fresh air and keep at rest in a position comfortable for breathing. Give artificial respiration a victim is not breathing. Loosen tight clothing such as a collar, tie, belt or waistband. If cough or difficulty breathing develops; contact emergency medical provider, who should evaluate for respiratory track irritation, bronchitis, pneumonitis. Gaseous formaldehyde may cause temporary irritation to the eyes, nose and throat.

Skin Contact – Wood dust may cause skin dryness and mechanical irritation. Both formaldehyde and various species of wood dust may cause allergic contact dermatitis in sensitized individuals. 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.

Eye Contact – Treat dust in eye as a foreign object. Rinse/flush exposed eye(s) with water (for at least 15-20 minutes), occasionally lifting the upper and lower eyelids 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.

Gaseous formaldehyde may cause temporary irritation or a burning sensation. In case of contact immediately flush eyes with plenty of water for at least 15 minutes, holding lids apart to ensure flushing of entire eye. Get medical attention immediately.

Skin Absorption – Not known to be absorbed through the skin.

Ingestion – 1st aid is not expected to be necessary if material is used under ordinary conditions and as recommended.

Notes to physician: immediate medical attention after exposure to this material not expected to be necessary. No special treatment indicated related to exposure to this material.

5 Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media: Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Use water spray, multipurpose ABC dry chemical extinguisher, carbon dioxide or sand.

Unsuitable Extinguishing Media: No data available

Combustion Products: Burning may release carbon dioxide, carbon monoxide, volatile organics (such as carbonyl and aliphatic acids), sulfur or metal oxides, organic carbon, and polynuclear aromatic hydrocarbon compounds (PAHs).

Advice for firefighters: Keep up wind of fire. Wear full firefighting turnout gear and respiratory protection (SCBA). Large quantities of airborne combustible dust may ignite a secondary explosion. An airborne concentration of 40 g of dust per cubic meter of air is often used as the lower explosive limit (LEL) for wood dusts.

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

6 Accidental Release Measures

Personal precautions and emergency procedures

Personal Precautions – Ventilate enclosed areas. Do not walk-through spilled material. Wear appropriate personal protective equipment, avoid direct contact. If dust becomes airborne, use personal protection recommended in section 8. Wash exposed skin after handling. Keep dust away from ignition sources.

Emergency Procedures - Contain spill and monitor for excessive dust accumulation. Avoid unnecessary personnel and equipment traffic in the spill area.

Environmental Precautions – Do not flush or sweep dust or waste into sewers or other drainage systems. Contain accumulated dust and dispose per section 13.

Methods and materials for containment and cleaning up – Dust generated from sawing, sanding, drilling, or routing operations may be vacuumed or shoveled for recovery or disposal. Dust deposit should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere insufficient concentration. Wood dust clean-up and disposal activities should be accomplished in a manner to minimize creation of airborne dust. Use non-sparking tools to collect material. Place recovered wood dust in a container for proper disposal.

7 Handling and Storage

Handling – Use only with adequate ventilation. If modification generate dust, minimize airborne dust. 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. Keep surfaces free of dust accumulations

Storage and Handling Practices – Wood dust may pose a combustible dust hazard. Keep away from ignition sources, such as heat, flames, static, and sparks. Avoid contact with oxidizing agents and drying oils. Depending on moisture content, particle diameter and airborne concentration, combustible dust may explode in the presence of an ignition source. Reference NFPA standards 654 and 664 for guidance.

8 Exposure Control Measures, Personal Protection

Ingredient(s)	Agency	Exposure Limit(s)	Comments
Wood Dust as Particulates Not	OSHA	15 mg/m ³ TWA	Total Dust (PNOR)

Otherwise Classified (PNOC)			
Wood Dust as Particulates Not Otherwise Classified (PNOC)	OSHA	5 mg/m ³ TWA	Respirable fraction (As Particulates Not Otherwise Classified - PNOC.)
Wood Dust as Particulates Not Otherwise Classified (PNOC)	ACGIH	10 mg/m ³ TWA 3 mg/m ³ TWA	(Inhalable particles) (Respirable particles, recommended) As Particulates not otherwise classified (PNOC)
Wood Dust as Particulates Not Otherwise Classified (PNOC)	ACGIH	0.5 mg/m ³ TWA	(inhalable faction) as wood dust, western red cedar.
Wood Dust as Particulates Not Otherwise Classified (PNOC)	ACGIH	1 mg/m ³ TWA	(inhalable faction) as wood dusts, all other wood dusts.
Wood Dust as Particulates Not Otherwise Classified (PNOC)	NIOSH	1 mg/m ³ TWA	As wood dust, all soft and hard woods.
Formaldehyde (50-00-0)	ACGIH	STEL – Not Established TWA - Not Established	0.3ppm Ceiling
Formaldehyde (50-00-0)	NIOSH	STEL – Not Established 0.016 ppm TWA	0.1 ppm Ceiling (15 min)
Formaldehyde (50-00-0)	OSHA	STEL 2 ppm (see 29 CFR 1910.1048) 0.75 ppm TWA	Ceiling - Not Established
Resin	OSHA	PEL – 5 mg/m ³	Respirable dust fraction
Resin	OSHA	PEL – 15 mg/m ³	Total Dust
Resin	ACGIH	TLV – 10 mg/m ³	
Titanium dioxide			
Amorphous silica			
Synthetic amorphous silica	ACGIH	TWA: 10 mg/m ³ 8 hours.	
Synthetic amorphous silica	OSHA	PEL: TWA: 80 mg/m ³ 8 hours.	
Iron oxide	NIOSH	REL: TWA: 5 mg/m ³ , (as FE) 10 hours.	Dust and Fumes
Iron oxide	OSHA	PEL: TWA 10 mg/m ³ 8 hours.	
Iron oxide	ACGIH	TLV: TWA: 5 mg/m ³ 8 hours.	Respirable Fraction
Iron oxide	OSHA	PEL: TWA: 5 mg/m ³ 8 hours TWA: 10 mg/m ³ 8 hours.	Respirable Fraction Total Dust

Iron oxide	OSHA	STEL: 10 ppm, (as FE) 15 minutes	Total Particulates
Carbon black	ACGIH	TLV: TWA: 3 mg/m ³ 8 hours	
Carbon black	OSHA	PEL: TWA: 3.5 mg/m ³ 8 hours	

ENGINEERING CONTROLS

Ensure adequate ventilation and any dust handling systems (such as exhaust ducts, dust collectors, vessels in processing equipment) are designed in a manner to prevent the escape of dust into the work area.

PERSONAL PROTECTION

Hygiene measures: Wash hands, forearms, and face thoroughly after exposure to dust, before eating, smoking, and using the laboratory and at the end of the working period. Appropriate technique should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Eye Protection: Wear safety glasses or vented Safety goggles.

Skin Protection: Avoid skin contact by wearing cloth or leather gloves and long sleeves where feasible.

Respiratory Protection: Dust exposure above exposure limits is not expected during normal use. If exposure limits might be exceeded, appropriate air purifying respirators with particulate filter should be worn. The minimal levels of respiratory protection is a NIOSH – N95 disposable dust mask. When respirators are required, OSHA requires a respirator program per 29 CFR 1910.134.

9 Physical and Chemical Properties

Appearance/Odor: Plywood panels are articles typically light to dark wood color depending on wood species. Dust generated from machining is like to dark colored granular to fibrous; finely divided particulate. Wood odor is mild, not overpowering or displeasing, may include a slight resin/solvent odor.

Odor Threshold:	No Information Available	pH-Value:	No Information Available
Melting/Freezing point:	No Information Available	Boiling Point/Boiling Range:	No Information Available
Flash point:	No Information Available	Evaporation Rate:	No Information Available
Flammability:	No Information Available	Flammability limit lower: Flammability limit upper:	>40g/m ³ Unknown
Vapor pressure:	No Information Available	Vapor density:	No Information Available
Molecular weight:	Varies	Viscosity:	Not applicable

Specific Gravity:	<1 (est.)	Solubility:	Insoluble
Auto/Self-ignition temperature:	~400 – 550 deg. F	Decomposition temperature:	No Information Available

10 Stability and Reactivity

Reactivity: Not reactive.

Decomposition Products: Natural decomposition of organic materials such as wood dust may produce toxic gases and an oxygen deficient atmosphere in enclosed or poorly ventilated areas. Burning of wood can produce irritating and potential toxic fumes and gases including carbon monoxide, aldehydes, organic acids and hazardous particles.

Materials to which substance is incompatible: Strong alkaline, acid, oxidizing chemicals, or dry oils.

Chemical stability: Stable under normal temperatures and pressures.

Conditions to avoid: Excessive heat, sparks, flames, other ignition sources (particularly for wood dust).

Possibility of hazardous reactions: Hazardous polymerization not indicated.

11 Toxicological information

Acute Toxicity:	Synthetic amorphous silica: LD50 Dermal: Rabbit: 7500 mg/kg; LD50 Oral: Rat: 3160 mg/kg
Aspiration hazard	OSHA HCS 2012 - no data available
Carcinogenicity	OSHA HCS 2012 – Carcinogenicity 1A
Germ cell mutagenicity	OSHA HCS 2012 - no data available
Skin corrosion/irritation	OSHA HCS 2012 - no data available
Skin sensitization	OSHA HCS 2012 – Skin Sensitizer 1
STOT – RE	OSHA HCS 2012 - Specific target organ toxicity repeated exposure 1
STOT – SE	OSHA HCS 2012 - no data available
Toxicity for reproduction	OSHA HCS 2012 - no data available
Respiratory sensitization	OSHA HCS 2012 - Respiratory sensitizer 1
Serious eye damage/irritation	

Potential health effects:

Likely routes of exposure: Inhalation of dust may cause upper respiratory track irritation. Skin or eye contact with dusts from this product may cause physical irritation. Dust may cause allergic effects on inhalation or skin contact. Components send us our potential carcinogens via inhalation.

Inhalation

Acute (immediate): Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact made result in generation of excessive amounts of airborne dust in the workplace. Nuisance dust may affect the lungs, but reactions are typically reversible.

Chronic (delayed): May cause allergy or asthma symptoms or breathing difficulties if inhaled. A large number of studies have demonstrated that occupational exposure to wood dust causes both statistically significant and non-significant increases in respiratory symptoms. These symptoms range from irritation to bleeding, wheezing, sinusitis and prolonged colds. In addition, chronic wood dust exposure causes mucociliary stasis (absence of effective clearance) in the nose and, in some workers, also causes changes in nasal mucosa.

Skin

Acute (immediate): Exposure to dust may cause mechanical irritation. May cause skin sensitization. Symptoms include redness, and skin rash.

Chronic (delayed): No data available.

Eye

Acute (immediate): Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.

Chronic (delayed): No data available.

Ingestion

Acute (immediate): Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

Chronic (delayed): No data available.

Carcinogenic effects Repeated and prolonged exposure may cause cancer. IARC and NTP classify wood dust as a carcinogen. T's his classification is based on the increase occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. The evaluation noted in sufficient evidence to associate cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum with exposure to wood dust.

	CAS	OSHA	IARC	NTP
Formaldehyde	50-00-0	Specifically regulated Carcinogen	Group 1 – Carcinogenic	Known human Carcinogen
Wood dust as wood dust, all soft and hardwoods	NDA	Not listed	Group 1 - Carcinogenic	Known human Carcinogen
Titanium dioxide			Group 2B	
Carbon black			Group 2B	

IARC has issued a notice that they will publish a monograph that lists titanium dioxide (TiO₂) as possibly carcinogenic to humans (Group 2B) by inhalation (based solely on animal data). Human epidemiology studies do not suggest an increased risk of cancer to humans for occupational exposure to titanium dioxide. According to the IARC summary on titanium dioxide, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."

12 Ecological information

Toxicity:	Material data lacking.
Persistence and degrade ability:	Not rapidly degradable.
Bio-Accumulative potential:	Material data lacking.
Mobility in soil:	Material data lacking.
Other adverse effects:	Material data lacking.

13 Disposal Considerations

Preparing wastes for Disposal: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. Sawing, sanding or machining wood products generates wood dust as a by-product. 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:	Not Regulated
IATA:	Not Regulated

15 Regulatory Information

United States (USA)

Labor

OSHA – Process Safety Management – Highly Hazardous Chemicals

Formaldehyde 50 – 00 – 0 1000 pounds TQ

OSHA – Specifically Regulated Chemicals

Formaldehyde 50 – 00 – 0 2 ppm STEL (see 29 CFR 1910.1048, 15 minutes); 0.5 ppm Action Level (see 29 CFR 1910.1048); 0.75 ppm TWA (see 29 CFR 1910.1048)

Environment

CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Formaldehyde 50 – 00 – 0

CERCLA/SARA - Hazardous Substances and Their Reportable Quantity's

Formaldehyde 50 – 00 – 0 100 lb final RQ; 45.4 kg final RQ

CERCLA/SARA - Radionuclides and Their Reportable Quantity's

Formaldehyde 50 – 00 – 0 Not listed

CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Formaldehyde 50 – 00 – 0 Not listed

CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Formaldehyde 50 – 00 – 0 500 lb TPQ

CERCLA/SARA - Section 313 Emission Reporting

Formaldehyde 50 – 00 – 0 0.1% de minimis concentration

CERCLA/SARA - Section 313 PBT Chemical Listing

Formaldehyde 50 – 00 – 0 Not listed

United States - California:

Proposition 65 – Carcinogens List

Formaldehyde 50 – 00 – 0 carcinogen, initial date 1 – 1 – 88 (gas)

Proposition 65 – developmental toxicity

Formaldehyde 50 – 00 – 0 Not listed

Proposition 65 – maximum allowable dose levels (MSDL)

Formaldehyde 50 – 00 – 0 Not listed

Proposition 65 – no significant risk levels (NSRL)

Formaldehyde 50 – 00 – 0 40 units/day NSRL (gas)

Proposition 65 – reproductive toxicity – female

Formaldehyde 50 – 00 – 0 Not listed

Proposition 65 - reproductive toxicity – male

Formaldehyde 50 – 00 – 0 Not listed

16 Other information

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

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.

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DEFINITION OF COMMON TERMS:

ACGIH	American Conference of Governmental Industrial Hygienists
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
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Organization
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
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
TPQ	Threshold Planning Quantity
TSCA	Toxic Substance Control Act
TWA	Time Weighted Average (8 Hours)
Wt%	Weight Percentage