

MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product identifier : **Tolko Industries Ltd. OSB Products**

Product Code(s) : None reported.

Product Use : Wood paneling.

Chemical Family : Article

Supplier's name and address: **Tolko**
 3000 28 St.
 Vernon, BC, Canada
 V1T 9W9

Manufacturer's name and address:
Refer to Supplier

Information Telephone # : (250) 545-4411

24 Hr. Emergency Tel # : (780) 805-3800 (Alberta); (780) 523-2101 (Alberta); (306) 236-6565 (Saskatchewan)

SECTION 2 - HAZARDS IDENTIFICATION

Classification : WHMIS information: This product is not a WHMIS controlled product in Canada. It does not meet any of the criteria for a controlled product provided in Part IV of the Controlled Products Regulations (CPR).

OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).
 Acute Health Hazard
 Chronic Health Hazard

Emergency Overview : Wood article. Slightly aromatic odour.
 Warning! May cause eye, skin and respiratory tract irritation. Prolonged inhalation of an ingredient(s) in this product may cause edema of the lungs and/or lung damage. May cause skin and lung sensitization. Contains materials which can cause cancer and mutations.

POTENTIAL HEALTH EFFECTS:

Signs and symptoms of short-term (acute) exposure

- Inhalation* : If dusts are formed, inhalation may cause adverse lung effects. Symptoms may include sore throat, running nose and shortness of breath. Extremely high exposures may lead to inflammation of lung tissue (chemical pneumonitis), chemical bronchitis and accumulation of fluid in the lungs (pulmonary edema).
- Skin* : May cause mechanical irritation. If the article is damaged or processed (e.g. cut), hazardous properties may include the following: Splinters may produce septic wounds that may take an extremely long time to heal.
- Eyes* : Dust contact with the eyes can lead to mechanical irritation. May cause corneal damage and conjunctivitis.
- Ingestion* : Not an expected route of entry.

Effects of long-term (chronic) exposure

- : Prolonged skin contact may cause dermatitis (rash), characterized by red, dry, itching skin.
- Carcinogenic status** : Possible cancer hazard. See TOXICOLOGICAL INFORMATION, Section 11.
- Additional health hazards** : Possible mutagen Possible sensitizer. See TOXICOLOGICAL INFORMATION, Section 11.
- Potential environmental effects** : See ECOLOGICAL INFORMATION, Section 12.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	Wt.%
Polymeric diphenylmethane diisocyanate (PMDI)	9016-87-9	1.50 - 10.00
Formaldehyde	50-00-0	< 0.1
Wood (Trembling Aspen, Poplar, but not Western Red Cedar, may contain Spruce and Pine)	Not reported Not reported	87.00 - 95.00

SECTION 4 - FIRST AID MEASURES

- Inhalation** : If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Seek immediate medical attention/advice. Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed.
- Skin contact** : Flush skin thoroughly with running water for at least 15 to 20 minutes. Remove contaminated clothing. Wash contaminated clothing before reuse. If irritation or symptoms develop, seek medical attention.
- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes. If irritation or symptoms develop, seek medical attention.
- Ingestion** : Do NOT induce vomiting. Never give anything by mouth if victim is unconscious. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. Seek medical attention.
- Notes For Physician** : Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

- Fire hazards/conditions of flammability** : Not flammable under normal conditions of handling. Airborne dusts formed during the use of this product (ie. through cutting, sawing or grinding), may be combustible. Wood dusts may ignite at temperatures in excess of 204°C (399.2°F).
- Flammability classification (OSHA 29 CFR 1910.1200)** : Non-flammable solid.
- Oxidizing properties** : None known.
- Explosion data: Sensitivity to mechanical impact / static discharge** : Finely divided dust clouds may be sensitive to static discharge and pose a dust explosion hazard. Not expected to be sensitive to mechanical impact.
- Suitable extinguishing media** : Carbon dioxide, dry chemical, and water or fog spray.
- Special fire-fighting procedures/equipment** : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.
- Hazardous combustion products** : Irritating or noxious fumes, acrid smoke, and carbon oxides.
- NFPA Rating** : 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe
: *Health: 2 Flammability: 1 Instability: 1 Special Hazards:*

SECTION 6 - ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions** : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.
- Spill response/cleanup** : Remove all sources of ignition. Ventilate area of release. Stop the spill at source if it is safe to do so. Vacuum or use wet sweeping methods to gather up residual dust. Do not flush into surface water or sanitary sewer system. Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Prohibited materials : None known.

Special spill response procedures

: If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802). US CERCLA Reportable quantity (RQ): formaldehyde (100 lbs / 45.4 kg).

SECTION 7 - HANDLING AND STORAGE

- Safe Handling procedures** : Use only in well-ventilated areas. Wear protective gloves/clothing. Avoid breathing of dust created by cutting, sanding, or grinding. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Keep container tightly closed. Wash thoroughly after handling.
- Storage requirements** : Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Protect against physical damage.
- Incompatible materials** : Strong oxidizing agents; Strong acids; Strong bases.
- Special packaging materials** : Always keep in containers made of the same materials as the supply container.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

<u>Exposure Limits</u>				
<u>Ingredients</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Polymeric diphenylmethane diisocyanate (PMDI)	N/Av	N/Av	N/Av	N/Av
Formaldehyde	0.3 ppm (Ceiling)	N/Av	0.75 ppm	2 ppm (see 29 CFR 1910.1048)
Wood (Trembling Aspen, Poplar, but not Western Red Cedar, may contain Spruce and Pine)	1 mg/m ³	10 mg/m ³	5 mg/m ³	10 mg/m ³

Ventilation and engineering measures

: Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.

Respiratory protection

: If airbourne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Confirmation of which type of respirator is most suitable for the intended application should be obtained from respiratory protection suppliers.

Skin protection

: Wear protective gloves. Wear appropriate protective clothing to prevent skin contact, such as coveralls or long sleeved shirt, long pants, and shoes and socks. Wash contaminated clothing before re-use.

Eye / face protection

: Chemical goggles must be worn to prevent dusts from entering the eyes. Contact lenses may contribute to the severity of eye injury.

Other protective equipment

: Ensure that eyewash stations and safety showers are close to the workstation location.

General hygiene considerations

: Do not breathe dust. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Physical state** : Solid article. **Appearance** : Wood paneling.
- Odour** : Slightly aromatic odour. **Odour threshold** : N/Av
- pH** : N/Av
- Boiling point** : N/Av **Specific gravity** : 0.40 - 0.80

Melting/Freezing point	: N/Av	Coefficient of water/oil distribution	: N/Av
Vapour pressure (mmHg @ 20° C / 68° F)	: N/Av	Solubility in water	: Insoluble.
Vapour density (Air = 1)	: N/Av	Evaporation rate (n-Butyl acetate = 1)	: N/Av
Volatile organic Compounds (VOC's)	: N/Av	Volatiles (% by weight)	: N/Av
Flash point	: N/Av	Auto-ignition temperature	: 204°C (400°F)
Flash point Method	: N/Av	Upper flammable limit (% by vol.)	: N/Av
Lower flammable limit (% by vol.)	: 40 g / m3 (dust)	Flashback observed	: N/Av
Flame Projection Length	: N/Av		
Viscosity	: N/Av		
Absolute pressure of container	: N/Av		

Section 10: Stability And Reactivity

Stability and reactivity	: Stable under normal conditions.
Hazardous polymerization	: Will not occur.
Conditions to avoid	: Keep away from excessive heat, open flames, sparks and other possible sources of ignition. Avoid contact with water.
Materials To Avoid And Incompatibility	: See Section 7 (Handling and Storage) for further details.
Hazardous decomposition products	: None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOLOGICAL INFORMATION

Target organs	: Eyes, skin, respiratory system.
Routes of exposure	: <i>Inhalation:</i> YES <i>Skin Absorption:</i> NO <i>Skin & Eyes:</i> YES <i>Ingestion:</i> NO
Toxicological data	: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

Ingredients	LC₅₀(4hr)	LD₅₀	
	inh, rat	(Oral, rat)	(Rabbit, dermal)
Polymeric diphenylmethane diisocyanate (PMDI)	490 mg/m ³	49 g/kg	N/Av
Formaldehyde	287 ppm	800 mg/kg	300 mg/kg
Wood (Trembling Aspen, Poplar, but not Western Red Cedar, may contain Spruce and Pine)	N/Av	N/Av	N/Av

Carcinogenic status	: Contains formaldehyde. Formaldehyde is classified as carcinogenic by IARC (Group 1), ACGIH (Group A2) and NTP (Group 2). Wood dust is listed by IARC (Group 1).
Reproductive effects	: Contains no ingredient listed as toxic to reproduction.
Teratogenicity	: Not expected to be a teratogen.
Mutagenicity	: This product contains Formaldehyde, which may cause mutations to non-reproductive cells (somatic cells), based on animal data.
Epidemiology	: Not available.
Sensitization to material	: May cause allergic respiratory reaction (sensitization) with asthmatic symptoms such as wheezing and chest tightness. May cause an allergic skin reaction (e.g. swelling, rash and eczema).
Synergistic materials	: Not available.
Irritancy	: Irritating to eyes, respiratory system and skin.
other important hazards	: See Section 2 for additional information.
Conditions aggravated by overexposure	: Pre-existing skin, eye and respiratory disorders.




SECTION 12 - ECOLOGICAL INFORMATION

- Ecotoxicity** : No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.
- Mobility** : The product itself has not been tested.
- Persistence** : The product itself has not been tested.
- Bioaccumulation potential** : The product itself has not been tested.
- Other Adverse Environmental effects** : None known.

SECTION 13 - DISPOSAL CONSIDERATIONS

- Handling for Disposal** : Handle waste according to recommendations in Section 7.
- Methods of Disposal** : Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.
- RCRA** : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14: TRANSPORT INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
49CFR/DOT	None.	Not regulated.	Not regulated	none	
49CFR/DOT Additional information	None.				
TDG	None.	Not regulated.	Not regulated	none	
TDG Additional information	None.				
ICAO/IATA	None.	Not regulated.	Not regulated	none	
ICAO/IATA Additional information	None.				

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): formaldehyde (100 lbs / 45.4 kg)

MSDS Revision Date (mm/dd/yyyy): 03/08/2013

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: This product contains an Extremely Hazardous Substance under SARA Section 302. Contents: formaldehyde (500 lbs / 227 kg).

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute) health hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above their de minimus concentrations. This product contains: Polymeric diphenylmethane diisocyanate (PMDI); formaldehyde.

US State Right to Know Laws:

Proposition 65: WARNING: Drilling, sawing, sanding or machining this product generates wood dust and dust of titanium dioxide from the edge sealer, substances known to the State of California to cause cancer. Avoid inhaling wood dust and titanium dioxide dust or use a dust mask or other safeguards to avoid inhaling dust.

Proposition 65: WARNING: Wood products emit methanol, a chemical known to the State of California to cause birth defects or other reproductive harm.

Other U.S. State "Right to Know" Lists: The following chemicals are specifically listed by individual States: formaldehyde (MA, MN, NJ, CA, PA, RI); Polymeric diphenylmethane diisocyanate (PMDI) (NJ).

International Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

Refer to Section 2 for a WHMIS Classification for this product.

WHMIS information: This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16 - OTHER INFORMATION

HMIS Rating : * - Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe
*Health: *2 Flammability: 1 Reactivity: 1*

Legend :

- ACGIH: American Conference of Governmental Industrial Hygienists
- CA: California
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- DOT: Department of Transportation
- EPA: Environmental Protection Agency
- HMIS: Hazardous Materials Identification System
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
- Inh: Inhalation
- MA: Massachusetts
- MN: Minnesota
- N/Ap: Not Applicable
- N/Av: Not Available
- NFPA: National Fire Protection Association
- NIOSH: National Institute of Occupational Safety and Health
- NJ: New Jersey
- NTP: National Toxicology Program
- OSHA: Occupational Safety and Health Administration
- PA: Pennsylvania
- PEL: Permissible exposure limit
- RCRA: Resource Conservation and Recovery Act
- RI: Rhode Island
- RTECS: Registry of Toxic Effects of Chemical Substances
- SARA: Superfund Amendments and Reauthorization Act
- STEL: Short Term Exposure Limit
- TDG: Canadian Transportation of Dangerous Goods Act & Regulations
- TLV: Threshold Limit Values

TPQ: Threshold Planning Quantity
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2013.
- 2. International Agency for Research on Cancer Monographs, searched 2013.
- 3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2013 (Chempendium, HSDB and RTECs).
- 4. Material Safety Data Sheets from manufacturer.
- 5. US EPA Title III List of Lists - July 2011 version.
- 6. California Proposition 65 List - February 8, 2012 version.

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: (M)SDS sections updated
15. REGULATORY INFORMATION

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