



TitanWall Inc. www.titanwall.com

MATERIAL SAFETY DATA SHEET

TitanWall Inc.
11207 – 103 Avenue
Edmonton, Alberta, Canada T5K 2V9

Section 1. Chemical Products and Company Identification

Product Name/Trade Names:

TitanBoard

Other Names: Magnesium Oxide Board

Use: The above product is used as sheathing for TitanWall structured insulated panels.

Manufacturer: TitanWall Inc, 11207 – 103 Ave, Edmonton, Alberta T5K 2V9

Effective date: November 8, 2006

Note: As of the date of the preparation of this document, the information contained herein is believed to be accurate.

Substance Name	CAS #	UN #	EINECS #	Proportion (by weight)
Magnesium Oxide	1309-48-4	Not a hazardous material for shipping	215-171-9	65%
Magnesium Chloride	7791-18-6	Not a hazardous material for shipping		25%
Fiberglass Non-woven Mesh		Not a hazardous material for shipping		< 10%
Talc		Not a hazardous material for shipping		< 5%
Other non-hazardous ingredients (fillers)		Not a hazardous material for shipping		< 5%

Section 2. Hazardous Ingredients/Identity Information

Substance Name	CAS #	UN #	EINECS #	Proportion (by weight)
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Section 3. Hazards Identification

Emergency Overview: Not explosive, not a fire hazard

Primary Routes of entry and Potential Health Effects:

Acute effects - Dust may cause irritation of the nose, throat, and airways, resulting in coughing and sneezing. Certain susceptible individuals may experience wheezing (spasms of the bronchial airways) on inhaling dust during sawing operations.

Chronic Effects-Repeated and prolonged overexposures to dust can increase the risk of bronchitis and renal disease.

Ingestion: Unlikely under normal conditions of use, but swallowing the dust from this product may result in irritation to the mouth and gastrointestinal tract.

Eye: Dust may cause mechanical abrasion causing watering and redness

Skin: Dust may cause irritation of the skin from friction but cannot be absorbed through intact skin.

Section 4. First Aid measures

Signs and symptoms of over exposure: Breathlessness, wheezing, cough, sputum production

First Aid:

Swallowed:

If swallowed, dilute by drinking large amounts of water. Seek medical attention. If unconscious, loosen tight clothing and lay the person on their left side. Give nothing by mouth to someone who is unconscious.

Eye Contact:

Remove contact lens. Flush with running water or saline for at least 15 minutes. Seek medical attention if redness persists or if visual changes occur.

Skin Contact:

Wash with mild soap and water. Contact physician if irritation persists or later develops.

Inhaled:

Move to fresh air. If shortness of breath or wheezing develops, seek medical attention.

ADVICE TO DOCTOR: Treat symptomatically

Section 5. Fire Fighting Measures

TitanBoard is neither flammable nor explosive

Fire and Explosion Hazard:

1. Flash point: Not applicable
2. Auto-ignition: Not applicable
3. Non-flammable and non-explosive

Extinguishing Media: This material is not combustible. Appropriate extinguishing media (carbon dioxide, foam, water, or dry chemical) for surrounding fire should be used.

Fire Fighting: Fire fighting personnel should wear normal protective equipment and positive self-contained breathing apparatus.

Section 6. Accidental Release Measures

No special precautions are necessary to pick up product that has been dropped. The following applies to spills or releases of dust generated during cutting or sanding of the material.

Precautions: Good housekeeping practices are necessary for cleaning up areas where spills of dust have occurred. Take measures to either eliminate or minimize the creation of dust. Wherever possible, practices likely to generate dust should be controlled with engineering controls such as local exhaust ventilation, dust suppression with water and containment, enclosure or covers.

Use respiratory protection as described in Section 8.

Cleanup methods: A fine water spray should be used to suppress dust when sweeping (dry sweeping is not recommended). Vacuuming with an industrial vacuum cleaner fitted with a high-efficiency particulate (HEPA) filter is preferred to sweeping. Waste may be disposed of by landfill in compliance with government and local requirements.

In the event of an accidental spill, observe all protection measures set out in this MSDS. Avoid using materials and products that are incompatible with the product. Refer to Section 10.

Section 7. Handling and Storage

TitanBoard in its intact state does not present a health hazard. The controls below apply to dust generated from the boards by cutting, drilling, routing, sawing, crushing, or abrading, and cleaning or moving sawdust.

Keep exposure to dust as low as reasonably possible. Respirable levels should not exceed those specified by OSHA and MSHA and identified in this MSDS. Exposure to respirable (fine) dust depends on a variety of factors, including activity rate (cutting rate), method of handling, environmental conditions (weather conditions, workstation orientation) and control measures used.

Wherever possible, practices likely to generate dust should be carried out in a well vented area (outside). The work practices and engineering controls set out in section 8 should be followed to reduce exposure.

Keep away from reactive products. Avoid spilling and creating dust. Maintain appropriate dust controls during handling. Use appropriate respiratory protection during handling as described in Section 8.

Section 8. Exposure Controls and Personal Protection

OSHA Permissible Exposure Standards (PEL): Exposures shall not exceed an 8-hour time weighted average (TWA) limit as stated in 29 CFR 1910.1000 Table Z-3 for mineral dusts, expressed in million particles per cubic feet (Mppcf) and/or milligrams per cubic meter (mg/m³). The American Conference of Governmental Industrial Hygienists Threshold Limit Values (TLV) is a recommended exposure limit based on an 8-hour TWA.

Material	<u>TLV mg/m³</u>	<u>PEL Mpper</u>	<u>PEL mg/m³</u>
Magnesium Oxide	15 mg/m ³	<u>250</u> %MgO	15mg/m ³ %MgO
Magnesium Chloride	15 mg/m ³	<u>250</u> %MgC _{12.6} H ₂₀	15mg/m ³ %MgC _{12.6} H ₂₀
Fiberglass	15 mg/m ³		15mg/m ³
Talc	15 mg/m ³	Mg ₃ Si ₄ O ₁₀ (OH) ₂	15mg/m ³
Nuisance Dust (total dust)	10mg/m ³ (inhalable)	50	15g/m ³
(respirable)	3 mg/m ³	15	5mg/m ³

Personal protection: When handling products that may generate dust: Follow practices to limit the release of dust, work outdoors wherever possible, wear a NIOSH-approved dust mask or respirator (e.g., the N 95 dust mask) to limit exposure to respirable dust and warn others in the area.

Respiratory: If respirators are required, use and maintain in accordance with ANSI Standard (Z88.2) for particulate respirators. Use respirators that offer protection to the highest concentrations of dust. Put in place a respiratory protection and monitoring program that complies with MSHA or OSHA standards. Comply with all other applicable federal, provincial, and state laws.

Eye: When cutting material, dust resistant safety goggles/glasses should be worn and used in compliance with ANSI Standard Z87.1-1989 and applicable OSHA (e.g. 29 CFR 1910.133) standards.

Skin: Loose comfortable clothing should be worn. Direct skin contact with dust and debris should be avoided by wearing long sleeved shirts and long pants, hat, and gloves. Work clothes should be washed often.

Engineering Controls

Cutting Outdoors

1. Position cutting station so that wind will blow dust away from operator or others in the working area.
2. Use the following methods best suited for job site conditions.
 - (a) Score and snap using carbide-tipped scoring knife or utility knife or Fiber Cement Shears
 - (b) Dust reducing circular saw equipped with cement-blade and HEPA vacuum extraction
 - (c) Dust reducing circular saw with cement-blade

Cutting Indoors

- a. Cut only using score and snap method or with Fiber Cement Shears
- b. Position cutting station in a well-ventilated area to allow for dust dissipation

Sanding, Drilling, Machining If sanding, drilling, machining is necessary, you should always wear a NIOSH-approved dust mask or respirator (e.g. N-95) and warn others in the area.

Clean-Up During clean-up of dust and debris, never dry sweep as it may suspend dust particles into the user's breathing area. Instead, wet debris down with a fine mist to suppress dust during sweeping, or use a HEPA vacuum to collect particles.

Section 10. Stability and Reactivity

Stability: TitanBoard is stable under ordinary conditions

Conditions to Avoid: Excessive dust generation during storage and handling

Materials to Avoid:

Incompatibility: Hydrochloric acid will dissolve Magnesium Oxide and can generate Magnesium Chloride fumes.

Section 11. Toxicological Information

These products are not toxic in their intact form. The following applies to dust that may be generated during cutting and sanding:

Chronic Effects:

Inhaled: Repeated and prolonged overexposures to dust can cause increased risk of bronchitis and renal disease. It is possible that repeated inhalation exposure to TitanBoard fiber dust over time may lead to inflammation of the lungs in humans. Precautions taken to prevent inhalation will prevent this.

Section 12. Ecological Information

Because Magnesium Oxide is a naturally occurring mineral, releases that may occur into the environment would not be expected to leave any hazardous material that could cause a significant adverse impact.

Section 13. Disposal Consideration

Disposal of material, as an inert, non-metallic mineral, in conformance with federal, provincial, state and local regulations. TitanBoard is not a RCRA hazardous waste.

Section 14. Transport Information

There are no special requirements for storage and transport.

UN No.	None Allocated
Dangerous Goods Class:	None Allocated
Hazchem Code:	None Allocated
Poisons Schedule:	None Allocated
Packing Group:	Not Applicable
Label:	Not a DOT hazardous material

Section 15. Regulatory Information

DOT Hazard Classification: None, not a hazardous material.

Placard requirement: Not a DOT hazardous material.

CERCLA Hazardous Substance (40 CFR Part 302):

Listed Substance: No **Unlisted Substance:**
No Reportable Quantity (RQ): None
Characteristics: Not Applicable **RCRA**
Waste Number: Not Applicable

Section 16. Other Information

Warning: avoid ingesting TitanBoard or inhaling its dust.

This form has been prepared to meet current Federal OSHA hazard communications regulations and is offered with out any warranty or guarantee of any type. TitanWall Inc. cannot control the use of its products, and therefore specifically disclaims liability and responsibility arising from the use, misuse and alteration of its products.

TitanWall Inc. requires, as a condition of use of its products, that purchasers comply with all applicable Federal, Provincial, State, and local health and safety laws, regulations, orders, requirements, and strictly adhere to all instructions and warnings which accompany the product.



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