

Material Safety Data Sheet MSDS

No.: MGOCORP-010112

Presented By:

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Products Intended Uses:

Exterior: sheathing, fascia, Soffit, ceiling board, drop ceiling, roofing substrate, siding, trim material.

Interior: wallboard, ceiling board, tile backing board, underlayment, flooring substrate. Structural Insulated Panels (SIPS) and Exterior Insulated Finish Systems (EIFS)

Product Compliances:

BCA Volume 1 2014: Section C Fire Resistance (inclusive of all parts C1.1 to C1.7) 1.8 Light Weight Construction including walls, ceilings and floors, C1.10 Fire Hazard, including NSW State Variation, and C1.12 Non-Combustible materials. Load bearing timber frame 60/60/60 utilising 10mm ResCom™ sheathing. Load bearing metal frame 90/90/90 utilising 10mm ResCom™ sheathing, 120/120/120 utilising 12mm ResCom™ sheathing and 120/120/120 (18mm) ResCom™ flooring. Non-loadbearing walls and ceiling linings to FRL: -/20/20 (5mm) ResCom™ sheathing -/60/60 (10mm) ResCom™ sheathing -/90/90 (10mm) ResCom™ sheathing -/120/120 (12mm) ResCom™ sheathing -/180/180 (14mm) ResCom™ sheathing -/240/240 (15mm) ResCom™ sheathing.

BCA Volume 1 2014: Section C Part C3 Protection of Opening (inclusive of all parts C3.0 to 3.17)

BCA Volume 1 2014: Part F5 Sound Insulation to Rw 60+ctr

BCA Volume 2 2014: Part 3.5.3.3, fibre cement planks and weatherboard cladding

BCA Volume 2 2014: Part 3.5.3.4, fibre cement sheet wall cladding

BCA Volume 2 2014: Part 3.5.3.5, eaves and soffit linings

BCA Volume 2 2014: Part 3.7.1, fire separation for FRL to 60/60/60

BCA Volume 2 2014: Part 3.7.4, bush fire zones BAL-FZ including all state variations to Part 3.7.4.0 and 3.7.4.1, as tested under AS1530 Part 8.1 -2007 and AS1530 Part 8.2 - 2007 - including NSW state variation, SA state variation, TAS state variation

BCA Volume 22014: Part 3.8.6, Sound Insulation to Rw 60+ctr

SECTION 2: Performance Characters:

- Density: Approx density of each thickness is 0.95-1. 10g/cm³, it can be adjusted in the production
- Fireproof characteristic: A grade not combustible
- Intensity of bending resistance when dry 18Mpa
- Intensity of bending resistance when moisture-saturated condition: 22Mpa
- The Rate of deformation when pick up the moisture: 0.26%
- The shrinking rate when heated: 1.0%
- Water permeability: There is no drop of water to emerge in the back
- Impact resistance: No crack, strip and run through
- Minimum Thermal resistance: 1.14m²k/w
- Sound insulation: ≥ BCA V2 3.8.6 >Rw54 (single sheet wall system)
- Security: 100% does not include the asbestos, formaldehyde, and benzene

Physical Characteristics:

- **Flexural Modulus:** Not less than 0.93×10^6 psi when tested in accordance with ASTM D6109.
- **Flexural Strength:** Not less than 1295 psi when tested in accordance with ASTM D6109.
- **Shear Strength:** Not less than 391 psi when tested in accordance with ASTM D6109.
- **Fungus/Mold:** Non-nutrient when tested in accordance with ASTM G21.

Ingredients:

- **MgO (Magnesium Oxide)** (so called burnt magnesium) used in medicine for curing heartburn;
- **MgCl₂ (Magnesium Chloride)** It's contained in marine and rainwater and is the element of such material as Bishofit
- **Perlite (SiO₂)** (volcanic glass) in the MgO Boards is used as the filling materials.
- **Alpha Cellulose Material**
- **Filler** Glass fibre mesh and non-woven fabric

MgO Composition Ingredient:

- Magnesium Oxide (MgO)
- Magnesium Chloride Solution (MgCl₂) (included NaCl≤1.5%, KCl≤0.7%)
- Phosphoric Acid (H₃PO₄) **no**
- Iron Sulfate (FeSO₄) **no**
- Polyvinyl Alcohol Glue **no**
- Aluminum Sulfate water solution (AlSO₄) **no**
- Magnesium Sulfate **no**
- Alpha Cellulose Material
- Perlite
- Glass fibre mesh and non-woven fabric

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview:

Non-toxic, non explosive and is not a fire hazard.

Primary Routes of Entry:

Eyes: Dust may irritate the eyes from mechanical abrasion causing watering and redness.

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

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

Inhalation: 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 sanding or sawing operations.

SECTION 4: FIRST AID MEASURES

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

INGESTION: If ingested, dilute by drinking large amounts of water. Do not induce vomiting. Seek medical attention. If unconscious, loosen tight clothing and lay the person on his / her side. Give nothing by mouth to an individual who is not alert and conscious. Seek medical attention.

INHALATION: Remove to fresh air. If shortness of breath or wheezing develops, seek medical attention.

NOTES TO PHYSICIAN OR FIRST AID PROVIDERS: Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

MgO Corp Board's range of products are non flammable, non explosive and non combustible.

- Fire and Explosion Hazard: Not applicable
- Flash Point: Not applicable
- Auto-ignition: Not applicable
- Extinguishing Media: This material is non combustible
- Appropriate extinguishing media should be used for a surrounding fire
- Fire Fighting: Fire fighting personnel should wear normal protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Precautions: Good housekeeping practices are necessary for cleaning up areas where dust has been produced. 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.

Cleanup Methods: A fine water spray may be used to suppress dust when sweeping (dry sweeping is not recommended). Vacuuming with an industrial vacuum cleaner outfitted with a high-efficiency filter is recommended over sweeping. Waste may be disposed of by landfill in compliance with federal, provincial, state, territory and local requirements governing non-toxic mineral materials

Avoid using materials and products that are incompatible with this product. (Refer to section 10.)

SECTION 7: HANDLING AND STORAGE

Handling and Storage Products in their intact state do not present a health hazard. The controls below apply to dust generated from the boards by cutting, drilling, routing, sawing, crushing, or otherwise abrading, and cleaning or moving sawdust.

Other Precautions:

Even though MgO Corp Boards have been tested and deemed non toxic, Magnesium Oxide Board Corporation recommends that exposure to dust be kept as low as reasonably possible.

Respirable levels should not exceed those specified by OH&S and MSHA and identified in this MISDS.

Exposure to respirable (fine) dust depends on a variety of factors, including activity rate (i.e. cutting rate), method of handling (i.e. electric shears), environmental conditions (i.e. weather conditions, workstation orientation) and control measures used.

Wherever possible, practices likely to generate dust should be carried out in well ventilated areas (i.e. outside). The work practices and engineering controls set out in Section 8 should be followed as precautions to reduce dust exposures.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls Cutting Outdoors:

1. Magnesium Oxide Board Corporation recommends positioning cutting station so that wind will blow dust away from user or others in working area and allow for ample dust dissipation.
2. Use one of the following methods based on the required cutting rate and jobsite conditions. Acceptable Practices:
 - Score and snap using carbide-tipped scoring knife or utility knife (Ability to use this method depends on thickness of MgO Corp Boards being installed)
 - Fibre cement board shears (electric or pneumatic).

Preferred Practices

- Dust reducing circular saw equipped with appropriate blade and vacuum extraction.

Suitable Practices (for low to moderate cutting only - DIY projects)

- Dust reducing circular saw with appropriate saw blade. Always use correct tools when executing all cutting operations.

Ventilation:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limit.

Respiratory Protection:

Dust mask is recommended.

Eye Protection:

When cutting material, dust resistant safety goggles / glasses should be worn and used in compliance with the BCA and ASTM standards.

Skin Protection:

Loose comfortable clothing should be worn. Magnesium Oxide Board Corporation recommends that direct skin contact with dust and debris be avoided when possible by wearing long sleeved shirts and long trousers, a cap or hat, and gloves.

Sanding / Drilling / Other Machining:

If sanding, drilling, or other machining is conducted, Magnesium Oxide Board Corporation recommends workers wear approved dust masks at all times.

Important Notes:

1. For maximum protection (lowest respirable dust production), Magnesium Oxide Board Corporation recommends always using “Best” level cutting methods where feasible.
2. Always use a circular saw blade that is appropriate for the specific operation being undertaken.
3. Dry sweeping is not the preferred clean up method Magnesium Oxide Board Corporation suggests wet suppression methods or vacuum.
4. It is not recommended that a grinder or continuous rim diamond blade be used for cutting.
5. Always follow tool manufacturer’s safety recommendations.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Is commonly white to beige in colours depending on application, each with varying tensile strengths according to product application.

- Odor: Very mild
- Physical State: Solid boards
- Vapor Pressure: Not relevant
- Specific Gravity: Not relevant
- Flammability Limits: Not relevant
- Boiling Point: Not relevant
- Melting Points: Not relevant
- Flash Point: Not relevant
- Auto-ignition Temperature: Not relevant
- Volatility: Not relevant
- Solubility in Water: Not relevant
- Evaporation rate: Not applicable
- NFPA Ratings (Scale 0 – 4)
- Health = 1
- Flammability = 0
- Reactivity = 0
- Personal Protection = E

SECTION 10: STABILITY AND REACTIVITY

Stability:

The MgO Corp Board products identified in section 1 are stable under ordinary conditions.

Conditions to Avoid:

Excessive dust generation without proper dust mask protection.

Materials to Avoid:

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

SECTION 11: TOXICOLOGICAL INFORMATION

MgO Corp Board products are non 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 may cause increased risk of bronchitis. It is possible that repeated inhalation exposure to MgO Corp Boards fibre dust over time may lead to inflammation of the lungs in humans. All necessary precautions should be taken to prevent inhalation of dust to prevent these problems.

SECTION 12: ECOLOGICAL INFORMATION

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

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of material, as an inert, inorganic mineral, in conformance with federal, provincial, state, territory and local regulations. MgO Corp Boards are not a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

There are no special requirements for storage and transport of MgO Corp Boards.

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
- Placard Requirement: Not a DOT hazardous material
- CERCLA Hazardous Substance (40 CFR Part 302)
- Listed substance: Not listed
- Substance: No Reportable Quantity (RQ)
- None Characteristic(s): Not applicable RCRA
- Waste Number: Not applicable

SECTION 16: OTHER INFORMATION

Preparation of Information and Disclaimer:

This form has been prepared to meet current Federal OH&S hazard communication regulations and is offered without any warranty or guarantee of any type. Magnesium Oxide Board Corporation Pty Ltd cannot control the use of its products, and therefore specifically disclaims liability and responsibility arising from the use, misuse and alteration of its products.

The information contained in this MSDS was produced without independent scientific or medical studies analysing the effects of MgO Corp Boards dust upon human health.

The information contained herein is based upon scientific and other data Magnesium Oxide Board Corporation Pty Ltd believes is valid and reliable and provides the basis for this MSDS.

The information contained herein relates only to specific materials listed in the document.

It does not address the effects of MgO Corp Boards dust when used in combination with other materials or substances, or when used in other processes.

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