



plasterboard

## SECTION 1: PRODUCT IDENTIFICATION

**Chemical Family:** Gypsum (Calcium Sulfate Dihydrate  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ )

### Products:

1. Regular Plasterboard
2. Fire Resistant Plasterboard
3. Moisture Resistant Plasterboard
4. Fire & Moisture Resistant Plasterboard
5. Similar Categories of Plasterboard

### Use:

Gypsum Plasterboard products are designed for specific applications that require properties such as fire resistance, moisture resistance, abrasion resistance, sag resistance and other properties required for applications in walls and ceiling assemblies.

### Generic Description:

Article Composite. Regular, fire resistant and/or moisture resistant gypsum core encased in paper on front and back sides. Contains No Asbestos. HMIS Hazard Class Number 1, 0, 0.

## SECTION 2: HAZARD IDENTIFICATION

### Emergency Overview:

Plasterboard panels do not present an inhalation, ingestion or contact health hazard. It is not recommended that sawing, sanding, grinding, or machining be performed on the product. Scoring and snapping method is recommended to avoid creating dust. If sawing is absolutely necessary, dust collection systems, vacuuming, and the utilization of side shield safety glasses, approved respirator, etc. may be necessary. Inhalation of dust generated from sawing and sanding could irritate nasal and throat tissues.

### Potential Health Effects:

- **Eye contact:** With airborne dust may cause irritation to the eye.
- **Skin contact:** May cause dryness, itching and irritation.
- **Ingestion:** Large amounts may cause intestinal discomfort or distress.
- **Inhalation:** Dust from cutting or sawing may cause irritation of nose, throat, or lungs.
- **Carcinogenic Potential:** Gypsum panels are not listed as a carcinogen by NTP, OSHA, or IARC.

## SECTION 3: COMPOSITION / INFORMATION OF INGREDIENTS

| Component                                    | CAS – Number | Weight in Percentage |
|--|--------------|----------------------|
| Calcium Sulfate Dihydrate (Gypsum)           | 10101-41-4   | 85 - 95              |
| Crystalline Silica (Quartz)                  | 14808-60-7   | <1                   |
| Cellulose (Paper Fiber)                      | 9004-34-6    | 5 -15                |
| Fiber Glass, Synthetic, vitreous, Continuous | 65997-17-3   | < 0.5                |
| Silicone Oil / Fluid                         | 63148-57-2   | < 0.2                |
| Proprietary Additives                        | NA           | <1                   |

## SECTION 4: FIRST AID MEASURES

- **Eyes:** Remove contact lenses (if applicable). Flush eyes thoroughly with water, including under eyelids to remove all particles. Call physician immediately.
- **Skin:** Wash affected skin gently with soap and water.
- **Inhalation of airborne dust:** Remove to fresh air. Seek medical help if coughing and other symptoms do not subside.
- **Ingestion:** Not applicable for product in its supplied form.

**SECTION 5: FIRE AND EXPLOSION HAZARD DATA**

- Flash point - None
- Lower Explosion Limit - None
- Upper Explosion Limit - None
- Auto Ignition Temperature - Not Combustible
- Extinguishing Media – Dry chemical, foam, water, fog or spray
- Special Fire Fighting Procedures - None.

Although, gypsum panels pose no fire related hazards, a self contained breathing apparatus is recommended to limit exposure to combustion product when fighting any fire.

- Hazardous combustion products – None. Above 1450° C could produce SO<sub>2</sub> and CaO.
- Unusual fire and explosion hazards – None

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

- Not applicable, as product is an article composite.

**General recommendations:**

- Wear appropriate Personal Protective Equipment. (See Section 8)
- Maintain proper ventilation.
- Pick-up larger pieces to avoid a tripping hazard. Return large pieces of damaged/scraped material for recycling.
- Sweep or vacuum remaining material into a waste container for disposal.
- Use a light water spray to minimize dust generation.
- Waste material is not a hazardous waste. Dispose of in accordance with applicable federal, state and local regulations.

**SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE**

- **General** - Keep material dry. Stack or store all panels flat. Panels are heavy and can fall over, causing serious injury or death. Use proper lifting methods and equipment. Do not move unless authorized.
- **Storage Temperature** - Should not be stored or used where temperatures exceed 55°C for extended periods or in areas of high humidity.
- **Precautions and safe handling** - Safety glasses should be worn when handling and installing the product. Gloves or protective clothing are usually not necessary but may be desirable in certain situations. Scoring and snapping is the method to be used when cutting the panels in order to reduce the potential for the creation of dust.
- **Waste disposal** – Not a hazardous material Dispose of in accordance with local, state, and federal regulations.
- **Transportation Data** - Gypsum panels are not hazardous for transportation.

**SECTION 8: EXPOSURE CONTROLS MEASURES / PERSONAL PROTECTION**

| Exposure Guidelines                         | OSHA PEL (mg/m <sup>3</sup> ) |                     | ACGIH TLV (mg/m <sup>3</sup> ) |                     |
|---|-------------------------------|---------------------|--------------------------------|---------------------|
|   | Total Dust (T)                | Respirable Dust (R) | Total Dust (R)                 | Respirable Dust (R) |
| Component                                   |                               |                     |                                |                     |
| Calcium Sulfate Dihydrate (Gypsum)          | 15                            | 5                   | 10                             | NE                  |
| Crystalline Silica (Quartz)                 | NE                            | 5                   | NE                             | 0.025               |
| Cellulose (Paper Fiber)                     | 15                            | 5                   | 10                             | NE                  |
| Fiberglass, Synthetic, Vitreous, Continuous | 15                            | 5                   | 10                             | NE                  |
| Silicone Oil / Fluid                        | NE                            | NE                  | NE                             | NE                  |
| Proprietary Additives                       | NE                            | NE                  | NE                             | NE                  |

NE – Not Established

**Engineering Controls:**

- **Work/Hygiene Practices:** The score and snap method of cutting is recommended. Sawing, drilling or machining will produce dust.
- **Ventilation:** Provide local and general exhaust ventilation to maintain a dust level below the PEL/TLV. Utilize wet methods, when appropriate, to reduce generation of dust.

**Personal Protective Equipment:**

- **Skin Protection** - Gloves or protective clothing are usually not necessary but may be desirable in certain situations.
- **Eye Protection** - Wear safety glasses with side shields or goggles. Do not wear contact lenses in dusty environments.
- **Respiratory Protection** - Not required for normal handling and use of product. However, the wearing of approved breathing protection may be necessary for exposure to dust generated from snapping, sawing, or remanufacturing this product.

Data presented is for the major component of this product: Gypsum (Calcium Sulfate Dihydrate)

**SECTION 9: PHYSICAL / CHEMICAL CHARACTERISTICS**

|   |  |
|---|--|
| • Appearance                                | - White, chalky material between paper liners. |
| • Odor                                      | - No Odor                                      |
| • Physical State                            | - Solid  |
| • Boiling Point                             | - Not Applicable                               |
| • Specific Gravity                          | - 2.2 – 2.4 gm/cc                              |
| • Vapor Pressure (mm of Mercury)            | - Not Applicable                               |
| • Vapor Density (Air = 1)                   | - Not Applicable                               |
| • Evaporation Rate                          | - Not Applicable                               |
| • Solubility in H <sub>2</sub> O (% by wt.) | - 0.241 gs/100cc                               |

**SECTION 10: REACTIVITY DATA**

- Stability - Product is stable.
- Conditions to Avoid - Reaction with strong acids will generate carbon dioxide.
- Incompatible Materials – None Know
- Hazardous Polymerization - Does not occur
- Hazardous Decomposition - Above 1450° C could produce SO<sub>2</sub> and CaO.

**SECTION 11: TOXICOLOGICAL INFORMATION****Human Data**

- There is no information on toxicokinetics, metabolism and distribution.
- There have been reports of irritation to mucus membranes of the eyes and respiratory tract upon acute exposure to dusts in excess of the recommended limits.
- Chronic exposure to crystalline silica (a naturally occurring contaminant in gypsum) in the respirable size has been shown to cause silicosis, a debilitating lung disease.
- In addition, the International Agency for Research on Cancer (IARC) classifies crystalline silica inhaled in the form of quartz or cristobalite from occupational sources as carcinogenic to humans, Group 1.
- The National Toxicology Program (NTP) classifies respirable crystalline silica as a substance which may be reasonably anticipated to be a carcinogen.
- OSHA does not regulate crystalline silica as a human carcinogen. Industrial hygiene monitoring to date has not identified any detectable respirable crystalline silica in dust sampling conducted during gypsum panel installation utilizing recommended procedures.

**Animal Data**

- The acute oral toxicity study [OECD TG 420, Fixed dose procedure] of calcium sulfate Dihydrate showed that this chemical did not cause any changes even at 2,000 mg/kg b.w. Therefore, the oral LD<sub>50</sub> value was more than 2,000-mg/kg b.w. for female rats (Sprague - Dawley).
- Calcium sulfate, dihydrate was not irritating to the skin of rabbits at 1, 24, 48 and 72 hours after removal of test patches [OECD TG 404].
- There is no indication of skin sensitization in guinea pigs [OECD TG 406]. *In vivo* and *In vitro* studies for mutagenicity were negative.
- Reproduction / Developmental Toxicity Screening Tests were negative.

**SECTION 12: ECOLOGICAL INFORMATION**

This product does not present an ecological hazard to the environment.

- Ecotoxicological Information - Toxicity studies performed with fish, aquatic invertebrates and aquatic plants showed no toxic effect.
- Environmental Fate - Gypsum is a naturally occurring mineral. Biodegradation and/or bioaccumulation potential is not applicable.

**SECTION 13: DISPOSAL CONSIDERATIONS**

- Dispose of according to Local, State, Federal, and Provincial Environmental Regulations.
- Recycle if possible.

**SECTION 14: TRANSPORTATION INFORMATION**

- This product is not a DOT hazardous material
- ICAO/IATA/IMO: Not applicable

**SECTION 15: REGULATORY INFORMATION**

There are no local regulatory information available for Gypsum Plasterboard. However, relevant international standards like OSHA may be considered. Details of such International Standards are:

- **OSHA Hazard Communication Rule, 29 CFR 1910.1200** – Dust and Potential respirable crystalline silica generated during product use may be hazardous.

**State Regulations**

- California Prop 65: Respirable crystalline silica is known to the state of California to cause cancer.
- Industrial hygiene monitoring during recommended use of this product failed to identify any respirable crystalline silica.

**Canada WHMIS**

- All components of this product are included in the Canadian Domestic Substances List (DSL).
- Crystalline silica: WHMIS Classification D2A
- CERCLA/SUPERFUND, 40 CFR 302 - Not listed.
- SARA Title III Sections 302 / 304 / 313 Hazard Category – Not Listed
- Toxic Substance Control Act (TSCA) - This product complies with the TSCA Inventory requirements.

**SECTION 16: OTHER INFORMATION****Key/Legend**

ACGIH American Conference of Governmental Industrial Hygienists CAS Chemical Abstract Services Number

CFR Code of Federal Regulations

DOT Department of Transportation

EPA Environmental Protection Agency

HEPA High Efficiency Particulate Air

HMIS Hazardous Material Identification System

IARC International Agency for Research on Cancer

ICAO International Civil Aviation Organization

IMO International Maritime Organization

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

PPE Personal Protective Equipment

TLV Threshold Limit Value

TSCA Toxic Substance Control Act

TWA Time Weighted Average

WHMIS Workplace Hazardous Materials Information System

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein. This material safety data sheet was prepared to comply with the OSHA Hazard Communication Standard (29 CFR 1910.1200) and with the Workplace Hazardous Materials Information System (WHMIS).

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