

Fiber Glass Mat

Material Safety Data Sheet

Product Name Glass Fiber Mat
Formula Not Available

Section 1 - Composition / Information on Ingredients

CAS # Component Percent

Not Available Continuous filament glass fibers 65-95
471-34-1 Calcium carbonate (present in 7723 mat only) 10-30
Not Available Urea Formaldehyde Binder (Modified, Cured) 5-35
Not Available Sizing <0.1
50-00-0 Formaldehyde <0.1*

Additional Component Information

* Free formaldehyde released only with high temperature and humidity. (Temperatures >65°C/149°F)

Section 2 - Hazards Identification

Emergency Overview

APPEARANCE AND ODOR: White to yellow or mauve glass fiber mats in rolls. Mild formaldehyde odor. Inhalation of excessive amounts of dust from the product may cause temporary upper respiratory irritation and/or congestion -- remove individual to fresh air.

Potential Health Effects

Summary

Breathing dust from this product may cause a scratchy throat, congestion, and slight coughing. Getting dust or fibers on the skin, or in the eyes may cause itching, rash, or redness. Additional health and safety information is provided in Section 11 of this material safety data sheet.

In high temperature applications, treatment, curing, or in geographic areas of high heat and humidity, this product may release gases irritating to the eyes, nose and throat. In confined or poorly ventilated areas, use air supplied respirators during the first heat-up cycles.

Inhalation

Irritation of the upper respiratory tract, coughing, and congestion may occur in extreme exposures. Severe irritation of the mouth, nose, and throat, as well as signs of central nervous system depression (drowsiness, dizziness, headache), may occur upon inhalation of vapors or gases.

Skin

Temporary irritation (itching) or redness may occur.

Ingestion

This product is not intended to be ingested (eaten). If ingested, it may cause temporary irritation to the gastrointestinal (digestive) tract.

Eyes

Temporary irritation (itching) or redness may occur.

Ears

Temporary irritation (itching) or redness may occur.

Primary Routes of Entry (Exposure)

Inhalation (breathing dust, fibers, or vapors), skin, and eye contact.

Target Organs

Throat, upper respiratory passages, lungs, skin, and eyes.

Medical Conditions Aggravated by Exposure

Pre-existing chronic respiratory, skin, or eye diseases or conditions.

Section 3 - First Aid Measures

First Aid: Inhalation

Remove to fresh air. Drink water to clear throat, and blow nose to remove dust.

First Aid: Skin

Wash gently with soap and warm water to remove dust. Wash hands before eating or using the restroom.

First Aid: Ingestion

Product is not intended to be ingested or eaten. If this product is ingested, irritation of the gastrointestinal (GI) tract may occur, and should be treated symptomatically. Rinse mouth with water to remove fibers, and drink plenty of water to help reduce the irritation. No chronic effects are expected following ingestion.

First Aid: Eyes

Do not rub or scratch your eyes. Dust particles may cause the eye to be scratched. Flush eyes with large amounts of water for 5-15 minutes. If irritation persists, contact a medical professional.

First Aid: Ears

Do not rub or scratch the ear if itching occurs. Wash gently with soap and warm water to remove dust or fibers.

First Aid: Notes to Physician

Irritating gases may be released under conditions of high heat or humidity. At high levels, these could cause severe upper respiratory and eye irritation. Formaldehyde gas is a skin and respiratory sensitizer. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

Section 4 - Fire Fighting Measures

Flash Point: Not applicable **Method Used:** Not applicable

Upper Flammable Limit (UFL): Not applicable **Lower Flammable Limit (LFL):** Not applicable

Auto Ignition: Not determined **Flammability Classification:** Not determined

Rate of Burning: Not determined

General Fire Hazards

There is no potential for spontaneous fire or explosion.

Fire Fighting Equipment/Instructions

Firefighters should wear full-face, self contained breathing apparatus and impervious protective clothing. Firefighters should avoid inhaling any combustion products.

Section 5 - Accidental Release Measures

Containment Procedures

Pick up large pieces. Vacuum dusts. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation or use compressed air for clean-up. These procedures will help to minimize potential exposures.

Clean-Up Procedures

Avoid the generation of dusts during clean-up.

Section 6 - Handling and Storage

Handling Procedures

Use protective equipment as described in Section 8 of this material safety data sheet when handling uncontained material.

9000 series mats may evolve ethanol upon exposure to water or humid air. Provide ventilation during use to control ethanol within exposure guidelines or use respiratory protection.

Storage Procedures

Warehouse storage should be in accordance with package directions, if any. Material should be kept dry, and protected from moisture.

Section 7 - Exposure Controls / Personal Protection

Exposure Guidelines

A: General Product Information

The Occupational Safety and Health Administration (OSHA) has not adopted specific occupational exposure standards for fiber glass. Fiber glass is treated as a nuisance dust and is regulated by OSHA as a particulate not otherwise regulated (total dust) shown in CFR 1910.1000 Table Z-3.

Respirable fraction 5 mg/m³

Total dust 15 mg/m³

B: Component Exposure Limits

Continuous filament glass fibers (Not Available)

ACGIH: 1 fiber/cm³ TWA (respirable fibers, length >5 µm, aspect ratio ≥3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination); 5 mg/m³ TWA (inhalable fraction)

Calcium carbonate (present in 7723 mat only) (471-34-1)

ACGIH: 10 mg/m³ TWA (particulate matter containing no asbestos and <1% crystalline silica)

Formaldehyde (50-00-0)

ACGIH: 0.3 ppm Ceiling

OSHA: 0.5 ppm Action Level; 0.75 ppm TWA; 2 ppm STEL (Irritant and potential cancer hazard - see 29 CFR 1910.1048)

C: Exposure Limits for Chemicals which may be generated during processing

Ethanol (may form from 9000 series mat when exposed to moisture or humid air) (64-17-5)

ACGIH: 1000 ppm TWA

OSHA: 1000 ppm TWA; 1900 mg/m³ TWA

NIOSH: 1000 ppm TWA; 1900 mg/m³ TWA

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Safety glasses with side shields are recommended to keep dust out of the eyes.

Personal Protective Equipment: Ears

Use ear protection (earplugs, hood, or earmuffs) to prevent airborne dust or fibers from entering the ear, if necessary.

Personal Protective Equipment: Skin

Leather or cotton gloves should be worn to prevent skin contact and irritation. Barrier creams may also be used to reduce skin contact and irritation caused by fiber glass.

Personal Protective Equipment: Respiratory

A respirator should be used if ventilation is unavailable, or is inadequate for keeping formaldehyde, dust and fiber levels below the applicable exposure limits. To protect against dust and fibers, use a NIOSH-certified disposable or reusable particulate respirator with an efficiency rating of N95 or higher (42 CFR 84) when working with this product. For exposures up to five times the established exposure limits use a quarter-mask respirator, rated N95 or higher; and for exposures up to ten times the established exposure limits use a half-mask respirator (e.g., MSA's DM-11, Racal's Delta N95, 3M's 8210), rated N95 or higher. Operations such as sawing, blowing, tear out, and spraying may generate airborne fiber concentrations requiring a higher level of respiratory protection. For exposures up to 50 times the established exposure limits use a full-face respirator, rated N99 or higher. Where formaldehyde exposure is possible, use a NIOSH-approved full-face formaldehyde respirator with a dust/mist prefilter. Formaldehyde gas may be released when product is subjected to high heat and humidity.

Ventilation

A respirator should be used if ventilation is unavailable, or is inadequate for keeping formaldehyde, dust and fiber levels below the applicable exposure limits. To protect against dust and fibers, use a NIOSH-certified disposable or reusable particulate respirator with an efficiency rating of N95 or higher (42 CFR 84) when working with this product. For exposures up to five times the established exposure limits use a quarter-mask respirator, rated N95 or higher; and for exposures up to ten times the established exposure limits use a half-mask respirator (e.g., MSA's DM-11, Racal's Delta N95, 3M's 8210), rated N95 or higher. Operations such as sawing, blowing, tear out, and spraying may generate airborne fiber dusts concentrations requiring

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Personal Protective Equipment: General

Wear a cap, a loose-fitting, long-sleeved shirt and long pants to protect skin from irritation. Exposed skin areas should be washed with soap and warm water after handling or working with fiber glass. Clothing should be washed separately from other clothes, and the washer should be rinsed thoroughly (run empty for a complete wash cycle). This will reduce the chances of fiber glass being transferred to other clothing.

Section 8 - Physical & Chemical Properties

Appearance: White to yellow or mauve glass fiber mat **Odor:** Mild formaldehyde

Physical State: Solid **pH:** Not applicable

Vapor Pressure: Not applicable **Vapor Density:** Not applicable

Boiling Point: Not applicable **Melting Point:** >871°C/1600°F

Solubility (H₂O): Nil **Specific Gravity:** Variable

Freezing Point: Not applicable **Evaporation Rate:** Not applicable

Percent Volatile: 0 **VOC:** Not applicable

Section 9 - Chemical Stability & Reactivity Information

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

All mats should be stored and used in a dry area. 9000 series mats should avoid contact with water or humid air. Ethanol may evolve from the mat should exposure to moisture occur.

Hazardous Decomposition

The decomposition products from this material are those that would be expected from any organic (carbon-containing) material, and are mainly derived from pyrolysis, or burning, of the resin. These decomposition products may include carbon monoxide, carbon dioxide, carbon particles, and traces of hydrogen cyanide. Formaldehyde gas may also be released during decomposition.

Hazardous Polymerization

Will not occur.

Section 10 - Toxicological Information

Acute Toxicity

A: General Product Information

Dust from this product is a mechanical irritant, which means that it may cause temporary irritation or scratchiness of the throat, and/or itching of the eyes and skin.

Gases released under conditions of high heat and humidity can cause severe eye and respiratory irritation.

B: Component Analysis - LD50/LC50

Calcium carbonate (present in 7723 mat only) (471-34-1)

Oral LD50 Rat: 6450 mg/kg

Formaldehyde (50-00-0)

Inhalation LC50 Rat: 0.578 mg/L/4H; Inhalation LC50 Rat: 250 ppm/4H; Oral LD50 Rat: 100 mg/kg;

Dermal LD50 Rabbit: 270

mg/kg

Carcinogenicity

A: General Product Information

No additional information available.

B: Component Carcinogenicity

Continuous filament glass fibers (Not Available)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Group 3 - Not Classifiable (IARC Monograph 81 [2002] (listed under Man-made mineral fibers), Monograph 43 [1988])

Formaldehyde (50-00-0)

ACGIH: A2 - Suspected Human Carcinogen

OSHA: 0.5 ppm Action Level; 0.75 ppm TWA; 2 ppm STEL (Irritant and potential cancer hazard - see 29 CFR 1910.1048)

NTP: Reasonably Anticipated To Be A Carcinogen (Possible Select Carcinogen)

IARC: Group 1 - Known Human Carcinogen (IARC Monograph 88 in preparation, Monograph 62 [1995], Supplement 7 [1987])

Chronic Toxicity

Exposure to formaldehyde gas (released under conditions of high heat or humidity) may cause eye and upper respiratory irritation, and possible respiratory or skin sensitization (allergy). If sensitization occurs, subsequent exposures to formaldehyde may worsen asthma or other respiratory problems, and cause allergic-type reactions.

Exposure to formaldehyde gas has been associated with the development of nasopharyngeal cancer in laboratory animals and humans. Formaldehyde has been classified as a known human carcinogen, Group 1, by the International Agency for Research on Cancer (IARC). The US Occupational Safety and Health Administration (OSHA) and the US National Toxicology Program (NTP) consider formaldehyde to have carcinogenic potential. OSHA specifically regulates formaldehyde under 29 CFR 1910.1048.

Continuous Filament Glass Fiber: No chronic health effects are known to be associated with exposure to continuous filament fiber glass. Results from epidemiologic studies have not shown any increases in respiratory disease or cancer. The International Agency for Research on Cancer (IARC) has classified continuous filament fiber glass as a Group 3 substance, not classifiable as to its carcinogenicity to humans. Because of the large diameter of continuous filament fibers, these products are not considered respirable.

Section 11 - Ecological Information

Ecotoxicity

A: General Product Information

No data available for this product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Formaldehyde (50-00-0)

5 min EC50 Photobacterium phosphoreum: 9.0 mg/L; 15 min EC50 Photobacterium phosphoreum: 7.26 mg/L; 25 min EC50

Photobacterium phosphoreum: 6.81 mg/L; 30 min EC50 Photobacterium phosphoreum: 16.5 mg/L; 1 Hr EC50 Vibrio harveyi:

1.2 mg/L; 5 Hr EC50 Vibrio harveyi: 3.7 mg/L; 72 Hr EC50 Colpoda aspera: 5.39 mg/L

96 Hr EC50 water flea: 20 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L

Section 12 - Disposal Considerations

US EPA Waste Number & Descriptions

A: General Product Information

Comply with state and local regulations for disposal. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the EPA.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Section 13 - Transportation Information

International Transportation Regulations

This product is not classified as a hazardous material for transport.
Mineral Wool Batts Batting or Blankets, Plain or Saturated
2299918001

Section 14 - Regulatory Information

US Federal Regulations

A: General Product Information

SARA 311 Status. The following SARA 311 designations apply to this product: Immediate (acute) health hazard. Delayed (chronic) health hazard.

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Formaldehyde (50-00-0)

SARA 302: 500 lb TPQ

CERCLA: 100 lb final RQ; 45.4 kg final RQ

State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

| Component | CAS # | CA | FL | MA | MN | NJ | PA |
|----------------------------------|---------------|-----|----|-----|-----|-----|-----|
| Continuous filament glass fibers | Not Available | No | No | No | Yes | No | No |
| Formaldehyde | 50-00-0 | Yes | No | Yes | Yes | Yes | Yes |

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

| Component | CAS # |
|--------------------------|----------|
| Formaldehyde | 50-00-0 |
| Methyl carbamate (trace) | 598-55-0 |

Other Regulatory Information

A: General Product Information

No information available for the product.

B: TSCA Status

This product and its components are listed on the TSCA 8(b) inventory.

None of the components listed in this product are listed on the TSCA Export Notification 12(b) list.

International Regulations

A: General Product Information

These products are considered articles under both U.S. and international product regulations and as such, these products do not require registration or notification on the various country-specific inventories.

B: Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.