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SURFACES INC.

Soundproofing | Acoustics | Noise & Vibration Control



Material Name: Specialty Fiber Glass Insulation

Material Safety Data
Sheet ID: 1041

Section 1 – Chemical Product and Company Identification

Product Name Fiber Glass Insulation
CAS# Mixture/None Assigned
Generic Name Fiber Glass Wool
Formula Not available
Chemical Name: Mixture
Hazard Label FG-02-FA or FGW-01
Manufacturer Information
John Manville
Performance Materials Division
P.O. Box 5108
Denver, CO 80127 USA

Telephone: 303-978-2000 8:00AM-5PM M-F
Internet Address: <http://www.jm.com>
Emergency: 800-424-9300 (Chemtrec, In English)

Trade Names: Microlite® Mat-faced; Microlite® Tackboard; Micromat®; Whisperstone® Micromat; Whisperstone® Tackboard; Whisperstone® Wall Board; Whisperstone® Wall Board, Plain (Unfaced).

Section 2 – Composition / Information on Ingredients

CAS#	Component	Percent
65997-17-3	Fiber Glass Wool	50-99
Not Available	Continuous Filament Glass fiber (CAS# 65997-17-3)	0.40*
25104-55-6	Urea extended phenol-formaldehyde resin (cured)	10-25
9011-05-6	Urea Formaldehyde Binder, Cured	0-10*
Not Available	Acrylic binder	0-10*
50-00-0	Formaldehyde	<0.1*

Additional Component Information

*Components of mat-faced products, i.e. all of the above except Whisperstone® Wall Board Plain (Unfaced). Free formaldehyde released only with high temperature and humidity.

Black products may contain carbon black as a colorant encapsulated in the binder. Due to product form, exposure to respirable dust is not expected.

Section 3 – Hazards Identification

Emergency Overview

APPEARANCE AND ODOR: Amber, white or black fiber glass mat or board. May have off white facer. No significant odor.

Inhalation of gases released during heat treatment or curing of this product may cause temporary upper respiratory irritation and/or congestion—remove affected individuals to fresh air.

Inhalation of excessive amounts of dust from the product may cause temporary upper respiratory irritation and/or congestion—remove affected individuals 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.

When subjected to high heat and humidity, this product may release formaldehyde gas. Formaldehyde is irritating to the eyes and respiratory system and is known to cause nasopharyngeal cancer (based on animal and human studies). Formaldehyde may cause skin or respiratory sensitization (allergy).



Material Name: Specialty Fiber Glass Insulation

Material Safety Data
Sheet ID: 1041

Inhalation

Irritation of the upper respiratory tract (scratchy throat), coughing, and congestion may occur in extreme exposures.

Skin

Temporary irritation (itching) or redness may occur.

Absorption

Formaldehyde is a skin sensitizer and may lead to an allergic reaction in some individuals.

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

Nose (nasal passages), throat, lungs, skin, eyes.

Medical Conditions Aggravated by Exposure

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

Section 4 – 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

This product is a mechanical irritant, and is not expected to produce any chronic health effects from acute exposures. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

Section 5 – Fire Fighting Measures

Flash Point: Not applicable

Upper Flammable Limit (UFL): Not applicable

Auto Ignition: Not determined

Rate of Burning: Not determined

General Fire Hazards

There is no potential for spontaneous fire or explosion.

Extinguishing Media

Carbon dioxide (CO2), water, water fog, dry chemical.

Fire Fighting equipment/Instructions

No special procedures are expected to be necessary for this product. Normal fire fighting procedures should be followed to avoid inhalation of smoke and gases.

Method Used: Not applicable

Lower Flammable Limit (LFL): Not applicable

Flammability Classification: Not determined

Section 5 – Fire Fighting Measures

General Fire Hazards

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 exposure.

Extinguishing Media

Carbon dioxide (CO2), water, water fog, dry chemical.



Material Name: Specialty Fiber Glass Insulation

Material Safety Data
Sheet ID: 1041

Section 7 – Handling and Storage

Handling Procedures

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

Storage Procedures

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

Section 8 – Exposure Controls / Personal Protection

Exposure Guidelines

A: General Product Information

Glass wool fiber, OSHA voluntary Health and Safety Partnership Program (HSPP): 1f/cc TWA for fibers longer than 5 µm with a diameter less than 3µm.

B: Component Exposure Limits

Fiber Glass Wool (65997-17-3)

ACGIH: 1 f/cc TWA (respirable fibers: length > 5µm aspect ratio equal to or greater than 3:1; 5mg/m³ TWA (inhalable fraction)

Continuous Filament Glass fiber (CAS # 65997-17-3)

ACGIH: 1f/cc TWA (respirable fibers: length. 5µm, aspect ratio equal to or greater than 3:1); 5 mg/m³ TWA (inhalable fraction)

Formaldehyde (60-00-0)

ACGIH: 0.3 ppm Ceiling

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

PERSONAL PROTECTION EQUIPMENT

Personal Protective Equipment: Eyes/Face

Safety glasses with sideshields are recommended to keep dust out the eyes.

Personal Protective Equipment: Ears

Use ear protection (earplugs, hood, or earmuffs) to prevent.

Personal Protective Equipment: Respiratory

A respirator should be used if ventilation is unavailable, or is inadequate for keeping dust and fiber levels below the applicable exposure limits. In those cases, use a NIOSH-certified disposable or reusable particulate respirator with an efficiency rating of N95 or higher (under 42 CFR 84) when working with this product. For exposures up to five times the established exposure limits use a quarter-mask respirator(e.g., MSA's DDM-11, Racal's Delta N95 or higher. Operations such as sawing, blowing, tear out, and spaying 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-faced formaldehyde respirator with a dust/mist prefilter.

Ventilation

In fixed manufacturing settings, local exhaust ventilation should be provided at areas of cutting to remove airborne dust and fibers. General dilution ventilation should be provided as necessary to keep airborne dust and fibers below the applicable exposure limits and guidelines. The need for ventilation systems should be evaluated by a professional industrial hygienist, while the design of specific, ventilation systems should be conducted by a professional engineer.

Personal Protection 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.



Material Name: Specialty Fiber Glass Insulation

Material Safety Data
Sheet ID: 1041

Section 9 – Physical & Chemical Properties

Appearance:	Off-White facing with amber fiber glass core	Odor:	No significant odor
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 10 – Chemical Stability & Reactivity Information

Chemical Stability

This is a stable material. This product is not reactive.

Hazardous Decomposition

Although fiberglass itself is not combustible, the following decomposition product may be released during of the throat, and/or itching of the eyes and skin.

Hazardous Polymerization

Will not occur.

Section 11 – 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.

B: Component Analysis - LD50/LC50

Urea extended phenol-formaldehyde resin (cured) (25104-55-6)

Oral LD50 Rat: 7 g/kg; Oral LD50 Mouse: 7 g/kg

Urea Formaldehyde Binder, Cured (9011-05-6)

Inhalation LC50 Rat: 7 g/kg; >167 mg/m³4H; Oral LD50 Rat: 8394 mg/kg; Oral LD50 Mouse: 6361 mg/kg

Formaldehyde (50-00-0)

Inhalation LC50 Mouse: 454 mg/m³4H; Oral LD50 Rat: 100 mg/kg; Oral LD50 Mouse: 42 mg/kg; Dermal LD50

Rabbit: 270 µL/kg

Carcinogenicity

A: General Product Information

The Occupational Safety and Health Administration (OSHA), national Toxicology Program (NTP), international Agency for Research on Cancer (IARC), and American Conference of Governmental Industrial Hygienists (ACGIH) have not classified this product as a carcinogen.

B: Component Carcinogenicity

Fiber Glass Wool (65997-17-3)

ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans (related to Glass wool fibers)

NTP: Reasonably anticipated to be a carcinogen (respirable size) (related to Glasswool) (Possible select carcinogen)

IARC: Group 3 - to Classifiable (IARC Monograph 43, 1988; Monograph 81, 2002, related to insulation glass wool)

Continuous Filament Glass Fiber (CAS# 65997-17-3)

ACGIH: A4 - Not classifiable as a Human Carcinogen

IARC: Group 3 - Not classifiable (IARC Monograph 43, 1988; Monograph 81, 2002)



Material Name: Specialty Fiber Glass Insulation

Material Safety Data
Sheet ID: 1041

Formaldehyde (50-00-0)

ACGIH: A2 - Suspected human carcinogen
OSHA: 0.75 ppm TWA; 2 ppm STEL; 0.5 ppm action level (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

Continuous Filament Glass Fiber (CAS# 65997-17-3)

ACGIH: A4 - Not classifiable as a Human Carcinogen
IARC: Group 3 - Not classifiable (IARC Monograph 43, 1988; Monograph 81, 2002)

Chronic Toxicity

Fiber Glass Wool: In October 2001, IARC classified fiber glass wool as Group 3, "not classifiable as to its carcinogenicity to humans." The 2001 decision was based on current human and animal research that shows no association between inhalation exposure to dust from fiber glass wool and the development of respiratory disease. This is a reversal of the IARC finding in 1987 of a Group 2B designation (possibly carcinogenic to humans) based on earlier studies in which animals were injected with large quantities of fiber glass. NTP and ACGIH have not yet reviewed the IARC reclassification or most current fiberglass health research; at this time, both agencies continue to classify glass wool based on the earlier animal injection studies.

Continuous Filament Glass Fiber: No chronic health effects are known to be associated with exposure to continuous filament fiber glass. Long-term epidemiologic studies do not show any increases in respiratory cancer or other disease among employees who manufacture this product. In 1987, the International Agency for Research on Cancer (IARC) classified continuous filament fiber glass as a Group 3 substance, "not classifiable as to its carcinogenicity to humans." In 2001, IARC re-affirmed this designation. Because of the large diameter of continuous filament fibers, these fibers are not considered respirable.

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.

A detailed listing of references on fiberglass health effects can be found in the publication HSE-64C, "Health and Safety Aspects of Fiber Glass," which can be downloaded from Johns Manville's Internet homepage, www.jm.com (select "Health Safety and Environment").

Section 12 - Ecological Information

Ecotoxicity

A: General Product Information

No data available for this product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Formaldehyde (50-00-0)

96 Hr LC 50 fathead minnow: 24.1 mg/L (flow-through); 96 Hr LC50 bluegill: 0.10 mg/L (flow-through)

5 min EC50 Photobacterium phosphoreum: 9.0 mg/L; 15 min EC 50 Photobacterium phosphoreum: 7.26 mg/L; 25 min EC 50

Photobacterium phosphoreum; 6.81 mg/L

96 Hr EC50 water flea; 20 mg/L

Section 13 - Disposal Considerations

US EPA Waste number & Descriptions

A: General Product Information

This product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Comply with state and local regulations for disposal. If you are unsure of the regulations, contact our 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.



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Material Safety Data
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Section 14 - Transportation Information

Shipping Name: This product is not classified as a hazardous material for transport.

Section 15 - Regulatory Information

US Federal Regulations

A: General Product Information

SARA 311/312: This product is not classified as hazardous under SARA 311/312. 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. TPO
CERCLA: 100 lb. final RQ; 45.5 kg final RQ

State Regulations

A: General Product Information

No additional information available.

B: Component Analysis - State

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

Component	CAS #	CA	FL	MA	MN	NJ	PA
Fiberglass Wool (related to Mineral wool fiber) (related to Glass wool fiber)	65997-17-3	Yes ¹	No	Yes ¹	Yes	No	Yes ²
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 know to the State of California to cause cancer.

A: 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.

C: Component Analysis - Inventory

Component	CAS#	TSCA	DSL	EINECS
Fiber Glass Wool	65997-17-3	Yes	Yes	Yes
Urea extended phenol-melamine formaldehyde resin (cured)	25104-55-6	Yes	Yes	No
Urea formaldehyde binder (cured)	9011-05-6	Yes	Yes	No
Formaldehyde	50-00-0	Yes	Yes	Yes

Section 16 - Other Information

Other Information

Prepared for
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P.O. Box 5108
Denver, CO USA 80217-5108

Prepared by:
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The information herein is presented in good faith and believed to be accurate as the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

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International Regulations

A: General Product Information
Not information available.

B: Component Analysis - WHMIS IDL

Component	CAS#	Minimum Concentration
Carbon black (encapsulated)	1333-86-4	1% (English Item 309, French Item 1271)

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