



Material Name: Continuous Filament Glass Fiber Mat
with UF Binder (SYNSKIN)

Material Safety Data
Sheet ID: 1013

Section 1 - Chemical Product and Company Identification

Product Name Continuous Filament Glass Fiber Mat with UF Binder (SYNSKIN)

CAS# Mixture/Not Assigned

Generic Name Glass Fiber Mat (SYNSKIN)

Formula Mixture

Chemical Name: Mixture

Hazard Label CF-UF or CF-FGW-UF

Manufacturer Information

Johns Manville Engineered Products Group
Mats and Reinforcements Division
P.O. Box 5108
Denver, CO 80127

Telephone: 303-978-2000

Internet Address: <http://www.jm.com>

Emergency: 800-424-9300 (Chemtrec)

Trade Names: All Glass Facer Mat; Blue Flag II; BUR Mat; Dura-Glass® Carpet Mat; Dura-Glass® Flooring Mat; Dura-Glass® Roofing Mat; Laminating Mat, Miscellaneous; Non-Standard Mat; Roof Repair Mats; Shingle Mat; 7000 Series Mat; 7100 Series Mat; 7200 Series Mat; 7224 Mat; 7300 Series Mat; 7400 Series Mat; 7500 Series Mat; 7600 Series Mat; 7723 Mat; 7900 Series Mat

Section 2 - Composition / Information on Ingredients

CAS #	Component	Percent
	Continuous filament glass fibers (See generic CAS#65997-17-3)	65-95
9011-05-6	Urea Formaldehyde Binder (Modified, Cured)	5-35
471-34-1	Calcium carbonate*	10-30
65997-17-3	Fiber Glass Wool**	1-20
50-00-0	Formaldehyde***	<0.1

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Glass wool fiber.

Additional Component Information

* Dura-Glass Type 7723 Mat contains calcium carbonate.

** All Glass Facer and 7900 Series Mat contain fiber glass wool.

*** Free formaldehyde released only with high temperature and humidity.

7224 Mat contains sizing.

Section 3 - Hazards Identification

Emergency Overview

APPEARANCE AND ODOR: White to yellow or mauve glass fiber mats in rolls. Mild formaldehyde odor.

Products designed for high temperature applications (above 177°C/350°F) may release gases irritating to the eyes, nose and throat during initial heat-up. In tightly confined or poorly ventilated areas, use air supplied respirators during the first heat-up cycles.

During cutting of this product, nuisance dust can be generated. Personal protective equipment as described in Section 8 can be used to protect against possible temporary irritation of skin, eyes, and respiratory tract.

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 may cause cancer (based on animal studies). Formaldehyde may cause skin or respiratory sensitization (allergy).

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.

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.

Target Organs

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

Primary Routes of Entry (Exposure)

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

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 eaten. If swallowed, product may irritate digestive tract. Rinse mouth with water to remove fibers; drink plenty of water to help reduce the irritation. No chronic effects are expected from 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: 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 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 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.

Method Used: Not applicable

Lower Flammable Limit (LFL): Not applicable

Flammability Classification: Not determined

Section 6 - 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 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 the elements.

Section 8 - Exposure Controls / Personal Protection**Exposure Guidelines****A: General Product Information**

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

B: Component Exposure Limits**Continuous filament glass fibers (See generic CAS#65997-17-3)**

- ACGIH: 1 f/cc TWA for fibers longer than 5 µm with a diameter less than 3 µm; 5 mg/m³ TWA inhalable particulate; (Listed under 'Synthetic vitreous fibers')
- OSHA: 5 mg/m³ TWA respirable fraction (OSHA)
15 mg/m³ TWA total dust (OSHA)

Fiber Glass Wool (65997-17-3)**

- ACGIH: 1 f/cc TWA for fibers longer than 5 µm with a diameter less than 3 µm; (Listed under 'Synthetic vitreous fibers') (related to Glass Wool Fiber)
- OSHA: 5 mg/m³ TWA respirable fraction (OSHA)
15 mg/m³ TWA total dust (OSHA)
(related to Glass Wool Fiber)

Formaldehyde* (50-00-0)**

- ACGIH: C 0.3 ppm
- OSHA: 0.75 ppm TWA PEL; 2 ppm STEL; 0.5 ppm TWA action level; Irritant and potential cancer hazard (29 CFR 1910.1048)

PERSONAL PROTECTIVE EQUIPMENT**Personal Protective Equipment: Eyes/Face**

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

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 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, 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.

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 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 9 - 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 determined	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.

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 11 - Toxicological Information

Acute Toxicity

A: General Product Information

Gases released under conditions of high heat and humidity can cause severe eye and respiratory irritation. 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 Formaldehyde Binder (Modified, Cured) (9011-05-6)

Inhalation LC50 Rat : >167 mg/m³/4H

Oral LD50 Rat : 8394 mg/kg

Oral LD50 Mouse : 6361 mg/kg

Calcium carbonate* (471-34-1)

Oral LD50 Rat : 6450 mg/kg

Formaldehyde*** (50-00-0)

Inhalation LC50 Rat : 203 mg/m³

Inhalation LC50 Mouse : 454 mg/m³/4H

Oral LD50 Rat : 100 mg/kg

Oral LD50 Mouse : 42 mg/kg

Dermal LD50 Rabbit : 270 uL/kg

Carcinogenicity

A: General Product Information

No data for this product as a whole.

B: Component Carcinogenicity

Continuous filament glass fibers (See generic CAS#65997-17-3)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 43, 1988 (Group 3 (not classifiable))

Fiber Glass Wool** (65997-17-3)

ACGIH: A3 - Animal Carcinogen (related to Glass wool fibers)

NTP: Suspect Carcinogen (related to Glasswool) (Possible Select Carcinogen)

IARC: Monograph 81, 2002 (related to Glasswool) (Group 3 (not classifiable as to its carcinogenicity to humans))

Formaldehyde* (50-00-0)**

ACGIH: A2 - Suspected Human Carcinogen

OSHA: 0.75 ppm TWA PEL; 2 ppm STEL; 0.5 ppm TWA action level; Irritant and potential cancer hazard (29 CFR 1910.1048)

NTP: Suspect Carcinogen (Possible Select Carcinogen)

IARC: Monograph 62, 1995 (Group 2A (probably carcinogenic to humans))

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 nasal tumors in laboratory animals. Formaldehyde has been classified as a probable human carcinogen, Group 2A, by the International Agency for Research on Cancer (IARC). The US Occupational Safety and Health Administration (OSHA) and the US National Toxicology Program (NTP) considered formaldehyde to have carcinogenic potential. OSHA specifically regulates formaldehyde under 29 CFR 1910.1048.

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 the most current fiber glass 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.

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)**

EC50 (30 min) Photobacterium phosphoreum:3.00-10.2 mg/L Microtox test.:

EC50 (96 hr) 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 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 14 - Transportation Information**US DOT 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.

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: TPQ = 500 pounds; RQ = 100 pounds (does not meet toxicity criteria but because of high production volume and recognized toxicity is considered a chemical of concern)
- SARA 313: form R reporting required for 0.1% de minimis concentration
- CERCLA: final RQ = 100 pounds (45.4 kg)

State Regulations

A: General Product Information

No information available for the product.

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
Fiber Glass Wool** (related to Mineral wool fiber)	65997-17-3	Yes ¹	No	Yes ¹	Yes	No	Yes ¹
Formaldehyde***	50-00-0	Yes	Yes	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.

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.

C: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Urea Formaldehyde Binder (Modified, Cured)	9011-05-6	Yes	Yes	No
Calcium carbonate*	471-34-1	Yes	Yes	Yes
Fiber Glass Wool**	65997-17-3	Yes	Yes	Yes
Formaldehyde***	50-00-0	Yes	Yes	Yes

Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

WHMIS Classification

This material is a class D2A controlled product under Canadian WHMIS Regulations (based on the IARC 2A classification for formaldehyde).

Section 16 - Other Information

Other Information

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The information herein is presented in good faith and believed to be accurate as of 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.

Date	MSDS #	Reason
1/7/00	1013-1.0000	New MSDS authoring system.
11/8/01	1013-1.0100	No change.
12/18/01	1013-2.0000	Update Sections 3, 11, & 15 for IARC 2001 re-classification of fiber glass wool to Group 3, "not classifiable as to its carcinogenicity to humans."
07/25/02	1013-2.0002	Minor edits.

This is the end of MSDS # 1013