

Section 1 - Chemical Product and Company Identification**Product Name** Air Handling HVAC Duct Liner**CAS#** None Assigned**Generic Name** Fiber Glass Insulation**Formula** E-glass**Chemical Name:** Mixture**Hazard Label** FGW-01**Manufacturer Information**

Johns Manville

Performance Materials Division

P.O. Box 5108

Denver, CO 80127 USA

Telephone: 303-978-2000 8:00AM-5:00PM M-F

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

Emergency: 800-424-9300 (Chemtrec, In English)

Trade Names: LinaTex™**Section 2 - Composition / Information on Ingredients**

CAS #	Component	Percent
65997-17-3	Continuous Filament Glass Fiber	70-85
25104-55-6	Urea extended phenol-formaldehyde binder	10-20
Not Available	Latex Emulsion	1-5
Not Available	Cured Vinyl/Acrylic Coating	1-5
Not Available	Hydrocarbon Polymers	1-5

Section 3 - Hazards Identification**Emergency Overview**

APPEARANCE AND ODOR: Light brown/yellow or amber continuous filament glass with vinyl or acrylic facing. Faint resin odor.

Under normal conditions of use and handling, this product is not expected to create any health or safety hazards.

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.

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).

HMIS (Hazardous Materials Information System) ratings for Health - Flammability - Physical Hazard: 1 - 0 - 0

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.

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. Seek medical attention if irritation persists.

First Aid: Skin

Wash gently with soap and water to remove dust. Wash hands before eating or using the restroom. To avoid further irritation, do not rub or scratch irritated areas. Seek medical attention if irritation persists.

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

Wash exposed skin with soap and water. If irritation develops in the inner ear, seek medical attention.

First Aid: Notes to Physician

This product is a mild mechanical irritant and it is not expected to product any chronic health effects from acute exposure. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary. See Section 8 of this MSDS for exposure limits.

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.

Hazardous Combustion Products

Primary combustion products are nitrogen oxide, carbon monoxide, carbon dioxide, ammonia, hydrogen chloride, and water.

Extinguishing Media

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

Fire Fighting Equipment/Instructions

In a sustained fire use self-contained breathing apparatus (SCBA) and full bunker turnout gear.

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

Keep product in its packaging until use to minimize potential dust generation. Wear PPE as described in Section 8 of this MSDS. Follow good industrial hygiene practices when handling this 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): 1 f/cc TWA for fibers longer than 5 µm with a diameter less than 3 µm. Protective equipment should be used as necessary to prevent irritation of the throat, eyes, and skin, and to keep exposures below the applicable exposure limits identified in Section 8.

B: Component Exposure Limits

Continuous Filament Glass Fiber (65997-17-3)

ACGIH: 1 f/cc TWA (respirable fibers: length > 5 µm, aspect ratio equal to or greater than 3:1, as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination.)

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Safety glasses with side shields, goggles, or face shield.

Personal Protective Equipment: Ears

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

Personal Protective Equipment: Skin

Normal work clothing (long-sleeved shirt, long pants) is recommended. 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.

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.

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:	Light brown/yellow or amber continuous filament glass with vinyl or acrylic facing.	Odor:	Faint resin odor.
Physical State:	Solid	pH:	Not applicable
Vapor Pressure:	Not applicable	Vapor Density:	Not applicable
Boiling Point:	>2250 F (glass)	Melting Point:	2250 F (glass)
Solubility (H₂O):	Nil	Specific Gravity:	Glass=2.6
Softening Point:	>800 F	Percent Volatile:	No data
VOC:	Not applicable		

Section 10 - Chemical Stability & Reactivity Information**Chemical Stability**

This is a stable material.

Chemical Stability: Conditions to Avoid

None expected.

Incompatibility

None expected.

Hazardous Decomposition

None, except in fire. See Section 5 of this MSDS for combustion products statement.

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.

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.

B: Component Analysis - LD50/LC50

Urea extended phenol-formaldehyde binder (25104-55-6)

Oral LD50 Rat: 7 g/kg

Carcinogenicity**A: General Product Information**

No additional information available.

B: Component Carcinogenicity

Continuous Filament Glass Fiber (65997-17-3)

ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans

NTP: Reasonably Anticipated To Be A Carcinogen (respirable size)

IARC: Group 2B - Possibly Carcinogenic to Humans (IARC Monograph 43, 1988)

Chronic Toxicity

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.

A detailed listing of references on fiber glass 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**

This product is not anticipated to harm animals, plants, or fish.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

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

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

B: Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

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
Continuous Filament Glass Fiber (¹related to Mineral wool fiber) (²related to Glass wool fiber)	65997-17-3	Yes¹	No	Yes¹	Yes	No	Yes²

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.

Continuous Filament Glass Fiber (related to Mineral wool fiber)

CAS# 65997-17-3

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.

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Continuous Filament Glass Fiber	65997-17-3	Yes	Yes	Yes
Urea extended phenol-formaldehyde binder	25104-55-6	Yes	Yes	No

Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

Section 16 - Other Information

Other Information

Prepared for:
Johns Manville
Performance Materials
P. O. Box 5108
Denver, CO USA 80217-5108

Prepared by:
Johns Manville Technical Center
P.O. Box 625005
Littleton, CO USA 80162-5005

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
07/27/04	1036-1.0000	New product.
07/14/05	1036-1.0001	Regulatory updates: Sections 8, 11, & 15

This is the end of MSDS # 1036