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There have been important changes to the health & safety information for the products listed below which were purchased from Johns Manville. Updated Material Safety Data Sheets (MSDS) with this new information are available at www.jm.com/msds/index.html or by calling 800-654-3103. Please forward this information to personnel responsible for hazard communication and OSHA compliance in your company. Distributors of the products listed below must comply with applicable federal regulations to convey these new MSDSs to their customers and affiliates. Below is a listing of MSDSs and associated products.

MSDS#: 1001		
292519608	S024 2 X48 X50	SG SERIES SPIN-GLAS 200.0
297095208	SG24 1 X48 X100	SG SERIES SPIN-GLAS 400.0
MSDS#: 1041		
307458008	WWM6.0 1 X49 X97	WHISPERTONE WBD44B/1452.3
307478808	WWM6.0 1 X49 X121	WHISPERTONE WBD44B/1811.6.
307588408	WWM6.0 2 X49 X121	WHISPERTONE WBD23B/947.0
307628808	WWM6.0 2 X49 X97	WHISPERTONE WBD23B/759.2



Material Name: Fiber Glass Residential Insulation Material Safety Data Sheet ID: 1010

Issue Date: 01/02/02 Revision: 2.0001

Other Sections:

02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

Section 1 - Chemical Product and Company Identification

Product Name: Fiber Glass Insulation

CAS#: Mixture/None Assigned

Generic Name Fiber Glass Wool Product

Formula: Mixture

Chemical Name: Mixture

Hazard Label: FBG-003

Manufacturer Information:

Johns Manville Insulation Group Residential Insulation Division P.O. Box 5108 Denver, CO 80127

303-978-2000 http://www.jm.com 800-424-9300 (Chemtrec)

Trade Names: All Purpose Insulation; Basement Rolls; Basement Wall Insulation; Best-Pak™; Blended Blowing Wool; CFI; Chickinsul; ComfortTherm®; Duct-Wrap Roll; EasyFitm™; Fiber Glass Roll; Fiber Glass Building Insulation; Flexible Insulation; Grid-SHIELD®; Grid-SHIELD® RX; High Performance Batts; High-Density Blowing Wool; Insul-SHIELD®; Insul-SHIELD® Black; Insul-SHIELD®; Black (Coated); ITP Concrete Wall Insulation®; ITP Econoliner; ITP Thermoliner®; Laminated Metal Building Insulation; Masonry Wall Batts; Microlite®; Microlite® L; Micro-Pak®™; Mobinsul®; Multi-Purpose Insulation; OEM Rolls; Pan-Insul; Panel-Deck; PAT Board; PEBS Blanket®; ProPak; Residential Rolls; Rich-R® Blowing Wool; Rich-R® Gold; Rich-R® Plus Blowing Wool; Sill Sealer, SingleTab NS®; Specialty Fiber Glass; Sound Attenuation Batts; Sound Control Batts; Sound SHIELD®™; Spin-Glas®; Suspend-R® Board; Theatre-SHIELD; Thermal-SHIELD; UMBI®™; Unfaced Sound Control Batts; Water Heater Blanket;

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Section 2 - Composition/Information on Ingredients

CAS	Component	Percent
65997-17-3	Fiber glass wool	85-98
25104-55-6	Urea extended phenol-formaldehyde resin (cured)	2-15**
Not Available	Acrylic thermoset resin	2-15**
Not Available	Foil/kraft, kraft, FSK, polyethylene, PSK, and various metal	0-6.7
	facings	
1309-64-4	Antimony trioxide (may be in facing or adhesive)*	>0.1

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Glass wool fiber, Antimony (7440-36-0).

Additional Component Information

*Note: Antimony trioxide (fire retardant) may be present in the facings and/or adhesives. Occupational exposure to airborne antimony trioxide is not expected to occur due to product form(s) and intended use (s). Exposure limits is given for reference only.

Section 3 – Hazards Identification

Emergency Overview

APPEARANCE AND ODOR: White or yellow fibrous glass board, batt, blanket, or loose-fill insulation with or without kraft, FSK, or other facings. No significant odor.

Under normal conditions of use, this product is not expected to create any unusual emergency hazards.

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

Skin irritation may be treated by gently washing affected area with soap and warm water.

Eye irritation may be treated by flushing eyes with large amounts of water. If irritation persists, contact a medical professional.

In the event of fire, use normal fire fighting procedures to prevent inhalation of smoke and gases.

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.

Inhalation

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

^{**}Binder may be either of these.



Skin

Temporary irritation (itching) or redness may occur.

Absorption

Not applicable

Ingestion

This product is to intended to be ingested or eaten under normal conditions of use. If ingested, it may cause temporary irritation to the gastrointestinal (GI) tract, especially the stomach

Eyes

Temporary irritation (itching) or redness may occur.

Target Organs

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

Primary Routes of Entry (Exposure)

Inhalation (breathing dust), skin, and eye contact.

Medical Conditions Aggravated by Exposure

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

Section 4 – Fire 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: Eves

Do not rub or scratch you 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

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 wit symptomatic treatment as necessary.



Section 5 – 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 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.

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.

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Section 8 – Exposure Controls/Personal Protection

Exposure Guidelines:

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 3 µm.

A: Component Exposure Limits

Fiberglass wool (65997-17-3)

ACGIH: 1 f/cc TWA for fibers longer than 5 um with a diameter less than 3 um; (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) Antimony trioxide (may be in

facing or adhesive)* (1309-64-4)

ADCIH: 0.5 mg/m3 TWA (related to Antimony)

OSHA: as Sb: 0.5 mg/m3 TWA (related to Antimony)

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

This material has no components listed.

PERSONAL PROTECTION 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.

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

Loose-fitting, long-sleeved clothing should be worn 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: Gold to yellow fibrous glass board, batt, blanket, or loose-fill without kraft, FSK, or other facings;	Odor: No significant odor		
Physical State: Solid	pH: Not applicable		
Vapor Pressure: Not applicable	Vapor Density: Not applicable		
Boiling Point: Not applicable	Melting Point: >704°C/300°F		
Solubility (H ₂ O): 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

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.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Acute Toxicity

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.

A: Component Analysis - LD50/LC50

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

Oral LD50Rat: 7 gm/kg Oral LD50 Mouse: 7gm/kg

Antimony trioxide (may be in facing or adhesive)* (1309-64-4)

Oral LD50 Rat: >34600mg/kg

Carcinogenicity

No data for this product as a whole.



A: Component Carcinogenicity 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))

Antimony trioxide (may be in facing or adhesive)* (1309-64-4)

ACGIH: A2 – Suspected Human Carcinogen (production)

IARC: Monograph 47, 1980 (Group 2B (possibly carcinogenic to humans))

Chronic Toxicity

Antimony trioxide causes pneumoconiosis in humans. Antimony trioxide was tested for carcinogenicity by inhalation exposure in male and female rats of one strain and in female rats of another strain, producing a significant increase in the incidence of lung tumors (scirrhous and squamous-cell carcinomas and bronchioloalveolar tumors) in females in both studies. No lung tumors were seen in male rats. Both of these studies provide only qualitative evidence of carcinogenicity of antimony trioxide in rats. In 1994, Groth et al., conducted a third study using a more rigorous inhalation protocol. This study subjected rats to several test concentrations and antimony trioxide was not carcinogenic. Thus, there is only equivocal evidence for the carcinogenicity of antimony trioxide by the inhalation route. Technical limitations or exposure to high particle concentrations seriously limit interpretation of the two earlier studies. USEPA and Ca1EPA concluded that these studies are inadequate for use in quantitative cancer risk assessment. According to USEPA's recently proposed cancer risk assessment guidance, a margin of exposure (MOE) analysis is more appropriate when, as with antimony trioxide, the carcinogenicity of a chemical may be a secondary effect of toxicity, or of an induced physiological change. The MOE approach was adopted after conferring with CalEPA scientists involved in the Proposition 65 program who suggested using USEPA's "Proposed Guidance for Carcinogen Risk Assessment." Johns Manville had a risk analysis conducted using the MOE approach; the results indicate the potential levels of exposure to antimony trioxide in IM products pose no significant cancer risk to the end-user of these products. Antimony trioxide is classified as a possible carcinogen, Group 2B, by the International Agency for Research on Cancer (IARC).

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.

A detailed listing of references on fiber glass health effects can be found in the publication HSE-64C, "Heath 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

No data available for this product.

A: Component Analysis - Ecotoxicity - Aquatic Toxicity

Antimony trioxide (may be in facing or adhesive)* (1309-64-4)

LC50 (96 hr) fathead minnow: 833.0 mg/L.; LC50 (96 hr) bluegill; 530 mg/L.

Section 13 - Disposal Considerations

US EPA Waste Number & Descriptions

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.

A: Component Waste Numbers

Mo 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 - Regulatory Information

US Federal Regulations

No information on this product as a whole.

A: 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).

Antimony trioxide (may be in facing or adhesive)* (1309-64-4)

SARA form R reporting required for 1.0% de minimis concentration (related to

313: Antimony)

CERCLA: final RQ=1000 pounds (454 kg)

State Regulations

No information available for the product.

A: 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
	Fiberglass Wool ('related to Mineral wool fiber)	65997-17-3	Yes ¹	No	Yes ¹	Yes	No
ı	Antimony trioxide (may be in facing or adhesive)*	1309-64-4	Yes	Yes	Yes	Yes	Yes



The following statements(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.

B: Component Analysis – Inventory

Component	CAS#	TSCA	DSL	EINECS
Fiber Glass Wool	65997-17-3	Yes	Yes	Yes
Urea extended phenol-formaldehyde	25104-55-6	Yes	Yes	No
resin (cured)				
Foil/kraft, draft, FSK, polyethylene, PSK, and	Not Available	No	No	No
various metal building facings				
Antimony trioxide (may be in facing or adhesive)*	1309-64-4	Yes	Yes	Yes

A: Component Analysis – WHMIS IDL

No components are listed in the WHMIS IDL.

Section 16 - Other Information

Other Information

Prepared for: Johns Manville Insulations Group Residential Insulation Division P.O. Box 5108 Denver, CO USA 80217-5108

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