

**Johns Manville**5-2-14
B-190396-00001Material Safety Data Sheet
Fiber Glass Sliver Products
MSDS No. 1016-2.5**SECTION 1: PRODUCT IDENTIFICATION**

Product Name: Fiber Glass Sliver Products CAS#: Mixture/None Assigned
Generic Name: Continuous Filament Fiber Glass Formula: Mixture
Chemical Name: Mixture Hazard Label: FBG-008
Telephone: 303-978-4900
Manufacturer: Johns Manville Emergency: 800-424-9300
Engineered Products Division Internet Address: <http://www.jm.com>
Address: P.O. Box 5108
Denver, CO USA 80217-5108

Trade Names:
Sliver Products (Staple Strand, Twisted Strand, Bulk, and Rovings)

SECTION 2: INGREDIENTS

Ingredient Name	CAS #	%	Exposure Limit(s)
Continuous filament fiber glass	65997-17-3	98-99	5 mg/m ³ TWA respirable fraction (OSHA) 15 mg/m ³ TWA total dust (OSHA) 1 fiber/cc TWA (ACGIH) 5 mg/m ³ TWA total dust (ACGIH)
Diethylene glycol	111-46-6	< 1-2	Not established
Sizing and oils	Proprietary	< 1	Not established

SECTION 3: HAZARD IDENTIFICATION**EMERGENCY OVERVIEW**

APPEARANCE AND ODOR: White glass fibers in continuous roving, bulk, or strand form; 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 physician.

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. Due to the physical properties of this product, the fibers cannot be carried into the lower lung passages when inhaled. Therefore, the inhalation hazard is limited to irritation of the upper respiratory tract (nose, throat, upper airways).

Acute (Short-Term) Health Effects:

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

Chronic (Long-Term) Health Effects:

No known long-term health effects. More detailed information concerning the health effects of fiber glass is described in Section 11 of this material safety data sheet.

Target Organs:

Upper respiratory passages, skin, and eyes.

Fiber Glass Sliver Products
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Inhalation (breathing dust or fibers), skin, and eye contact.

Medical Conditions Which May Be Aggravated:

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

Symptoms Of Overexposure**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:

Not applicable

Ingestion:

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

Eye:

Temporary irritation (itching) or redness may occur.

SECTION 4: FIRST AID MEASURES**Inhalation:**

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

Skin:

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

Absorption:

Not applicable.

Ingestion:

Product is not intended to be ingested or eaten. If this product is ingested, irritation of the GI (gastrointestinal) 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.

Eye:

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 physician.

Notes to Physician:

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

SECTION 5: FIRE FIGHTING MEASURES**Summary:**

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.

Unusual Fire/Explosion Hazards:

There is no potential for fire or explosion.

Flammable Properties and Explosive Limits:

Flash Point: Not applicable

FP Test Method: Not applicable

Flame Classification: Not determined

Flame Propagation: Not determined

Lower Explosive Limit (LEL): Not applicable

Upper Explosive Limit (UEL): Not applicable

Autoignition Temperature: Not determined

Decomposition Temperature: Not determined

SECTION 6: ACCIDENTAL SPILL/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. These procedures will help to minimize potential exposures.

Disposal:

Wastes are not hazardous as defined by the Resource Conservation and Recovery Act (RCRA; 40 CFR 261). Comply with state and local regulations for disposal of fiber glass products. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

Fiber Glass Sliver Products
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Use protective equipment as described in Section 8 of this material safety data sheet when handling uncontained material. Warehouse storage should be in accordance with package directions, if any. Material should be kept dry, and protected from the elements.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION**Summary:**

Protective equipment should be provided as necessary to prevent irritation to the throat, eyes, and skin, and to keep exposures below the applicable exposure limits identified in Section 2.

Eye:

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

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.

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:

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.

Other:

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.

Special Considerations for Repair/Maintenance of Contaminated Equipment:

Use personal protective equipment as discussed above. Where possible, vacuum equipment before repair/maintenance to remove excessive dust and loose fibers.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°F/°C):	Not determined
Evaporation Rate (Butyl acetate = 1):	Not applicable
Melting Point:	2871°C/1600°F
pH:	Not applicable
Saturation in Air (%):	Not applicable
Solids Content:	Not applicable
Specific Gravity (Water = 1):	Variable
Vapor Density (Air = 1):	Not applicable
Vapor Pressure:	Not applicable
Viscosity:	Not applicable
VOCs (g/liter):	Not applicable
Volatile by Volume (%):	Not applicable
Water Solubility (%):	0
Appearance and Odor:	NH

White glass fibers in continuous roving, bulk, or strand form; no significant odor.

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SECTION 10: STABILITY AND REACTIVITY

Product is stable.

Hazardous polymerization will not occur.

Reactivity:

This product is not reactive.

Hazardous Decomposition Products:

None.

SECTION 11: TOXICOLOGICAL AND EPIDEMIOLOGICAL DATA

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of the individual ingredients, and those hazards must be assumed to be additive in the absence of complete information. The hazards described in this document have been evaluated based on a threshold of 1.0% for all hazardous ingredients and 0.1% for all carcinogens.

Acute Effects:

The fibers from this product are mechanical irritants and may cause transitory irritation to exposed areas such as eyes, skin, and upper respiratory passages.

Toxicity (LD₅₀):

Product toxicity has not been determined.

Chronic Effects:

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.

References:

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," available free of charge from the Johns Manville Product Information Center. Major references used for the information contained in this material safety data sheet are as follows:

International Agency for Research on Cancer, "IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: Man-Made Mineral Fibres and Radon," 190 cours A. Thomas, F-69372, Lyon cedex 08 France, Monograph 43, 1988.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

This product has not been tested.

SECTION 13: DISPOSAL CONSIDERATIONS

Summary:

This product 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.

SECTION 14: TRANSPORT INFORMATION

Transportation Summary:

This product is not regulated as a hazardous material for transport.

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SECTION 15: REGULATORY INFORMATION

U. S. REGULATIONS**Federal Regulations:**

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. The following is information on carcinogen classifications of this product's components:

ACGIH A4 Not Classifiable as a Human Carcinogen: fiber glass (continuous filament).

The Permissible Exposure Limits (PELs) reported in this MSDS are from the air contaminants standard OSHA issued in 1989. While an appeals court eventually vacated this standard, it was without authority to reverse state law under which states, operating with their own OSHA programs, had adopted the 1989 standard. Below is a list of states enforcing the 1989 standard. Please also refer to 29 CFR 1910.1000 and to relevant state statutes for other applicable exposure limits.

State Regulations:**States Enforcing 1989 Air Contaminants Standard:**

AK, CA, CT, ME, MI, MN, NM, TN, WA, WI.

Environmental Regulations:

There are no components in this product regulated by the Environmental Protection Agency (EPA) under the Superfund Amendments and Reauthorization Act (SARA Title III); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or the Toxic Substance Control Act (TSCA).

Toxic Substances Control Act Inventory (TSCA 8(b)):

This product and its components are listed.

INTERNATIONAL REGULATIONS**Canada Environmental Protection Act Domestic Substance List (Section 25(1) DSL):**

This product and its components are listed.

SECTION 16: OTHER INFORMATION

For additional information concerning this product, contact the Johns Manville Product Information Center at PO Box 5108, Denver, CO USA 80217-5108, or call toll-free 800-654-3103 within the US or Canada. Otherwise, call 303-978-4900 collect.

MSDS Revision Summary:

Date	MSDS #	Reason
01/01/92	1016-1.0	Format revision
04/15/92	1016-2.0	Preparer/Manufacturer name change
12/31/92	1016-2.1	Section 11, Revision
06/15/93	1016-2.2	Section 4.1; Editorial changes
09/01/95	1016-2.3	Conversion to ANSI 16 section format
05/15/96	1016-2.4	Header: replaced logo with current standard and reformatted layout; Section 8 Respiratory Protection: modified recommended protection based on 42 CFR Part 84 requirements.
12/31/97	1016-2.5	Company name change; Section 2: updated TLV for fiber glass (CAS 65997-17-3).

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As of the date of preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state law(s). However, no warranty or representation with respect to such information is intended or given.

--- END OF MSDS 1016-2.5 ---