

# MATERIAL SAFETY DATA SHEET

Date 8/24/09

## SECTION I - MANUFACTURER'S INFORMATION

NAME: John Tillman Co      PRODUCT: VERTEX-  
ADDRESS: 1300 W Artesia Blvd.      BASE MATERIAL:  
Compton, CA 90220      Fiberglass textile; Yarn,  
TELEPHONE: 800-255-5480      Fabric, Tape, Braiding, Rope  
   COATING: Vermiculite

Textile glass fiber are continuous filament strands woven, knitted, or braided into a textile product. It may be used plain, heat treated, dyed, or coated.

## SECTION II - OSHA HAZARDOUS SUBSTANCES

<u>COMPONENT</u>	<u>CAS NO.</u>	<u>ACGIH TLV</u> (8-hr TWA)	<u>OSHA PEL</u> (8-hr TWA)
<u>Fiberglass</u>	65997-17-3		
Nonrespirable		5 mg/m <sup>3</sup> , Inhalable fraction	15 mg/m <sup>3</sup> , total dust
Respirable		3 mg/m <sup>3</sup> , PNOC	5 mg/m <sup>3</sup> , respirable
Respirable particulate with fiber like dimensions (glass shards)      <0.002%		NE	1 fiber/cc; aspect ratio >5:1
<u>Size</u>	mixture	NE	NE
<u>Vermiculite</u>			
Nonrespirable		10 mg/m <sup>3</sup>	15 mg/m <sup>3</sup> , total dust
Respirable		3 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>

TWA – time weighted average; PNOR – particles not otherwise classified, NE– none established

## SECTION III - PHYSICAL DATA

Boiling Point: N/A      Specific Gravity (water=1): 2.60  
Melting Point: N/A      Vapor Density: N/A  
Percent Volatile: N/A      Vapor Pressure: N/A  
Solubility in Water: Insoluble      Evaporation Rate: N/A  
APPEARANCE AND ODOR: Bronze or blue; no odor

## SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT: N/A      METHOD USED: N/A  
AUTO IGNITION TEMP: N/A      FLAMMABILITY LIMITS: N/A  
EXTINGUISHING MEDIA: Water, chemical foam, dry chemical, CO2, and/or smother.  
SPECIAL FIRE FIGHTING INSTRUCTIONS: N/A  
UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

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## SECTION V - HEALTH HAZARD DATA

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PRIMARY ROUTES OF EXPOSURE: Inhalation, skin, eye

HEALTH HAZARDS:

ACUTE: Possible mechanical irritation accompanied by itching or dermatitis.

CHRONIC: None known.

HEALTH HAZARD EVALUATION

One of the health questions about textile glass fiber is whether or not it can cause cancer in people. The diameter of these continuous filament fibers make them too large to be inhaled into the lungs by people. **No health authority has found, and no test has shown, that glass textile fibers cause cancer in people.** As a result of these findings, the World Health Organization and other authoritative bodies do not classify textile glass fiber as a carcinogen.

One of the reasons that people continue to have concerns about fiberglass and cancer are studies such as the 1997 study from the Institute of Occupational Medicine (IOM) in Edinburgh, Scotland. This study found that animals exposed to an extremely high dose of a durable E glass micro fiber, with average diameters less than 1 micron, developed lung scarring and tumors, including cancer of the lining of the lung (mesothelioma). The IOM study results are consistent with previously published research indicating that high doses of durable, fine diameter fibers can cause disease in experimental animals.

Although our continuous filaments are an E glass, they are not the same as the E micro fibers tested in the IOM study. Our fiberglass supplier does not manufacture this micro fiber.

Health hazard information relating to the vermiculite coating and as supplied by the manufacturer is presented at the end of this MSDS under Supplemental Information.

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## SECTION VI - EMERGENCY AND FIRST AID PROCEDURES

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INHALATION: If irritation develops move to fresh air.

SKIN CONTACT: If fibers irritate the skin wash with soap and water.

EYE CONTACT: Flush eyes with water for 15 minutes or until fibers are removed.

INGESTION: N/A

FOR ALL CONDITIONS SEEK MEDICAL ATTENTION IF IRRITATION PERSISTS.

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## SECTION VII - EMPLOYEE PROTECTION

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THE FOLLOWING PRECAUTIONS ARE ADVISABLE DURING CUTTING AND FABRICATION OR OTHER OPERATIONS THAT COULD GENERATE DUST WHILE USING THIS MATERIAL.

VENTILATION: General dilution and/or local exhaust ventilation should be provided as necessary to maintain exposures below occupational exposure limits (See Section II).

**RESPIRATORY PROTECTION:** A properly fitted NIOSH/MHSA approved dust respirator should be used when: 1) the level of dust in the air exceeds occupational exposure limits (See Section II); 2) or if irritation occurs. Use respiratory protection in accordance with your company's respiratory protection program, and OSHA regulations under 29 CFR 1910.134.

**EYE PROTECTION:** Safety glasses, goggles, or face shields, as necessary.

**PROTECTIVE CLOTHING:** Wear loose fitting long sleeve shirt and pants or other appropriate clothing to protect those areas where irritation is experienced. Skin irritation is known to occur at pressure points such as around neck, wrist, waist, and fingers.

**WORK AND HYGIENIC PRACTICES:** Handle in accordance with good industrial hygiene and safety practices.

- Remove dust and fibers from the skin after exposure. Be careful not to rub or scratch irritated areas which could force fibers into the skin. Fibers should be washed off.
- Use of barrier creams can, in some instances, can be helpful.
- Use vacuum equipment to remove fibers and dust from clothing. Wash contaminated clothing separately and wipe out washer/sink in order to prevent loose fibers and dust from contaminating other laundry.
- Use vacuum equipment to clean work surfaces.

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#### **SECTION VIII - REACTIVITY DATA**

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**STABILITY:** Product is stable.

**INCOMPATIBILITY:** None reasonably foreseeable.

**HAZARDOUS DECOMPOSITION PRODUCTS:** CO, CO<sup>2</sup>. Other undetermined compounds could be released in small quantities.

**HAZARDOUS POLYMERIZATION:** Will not occur.

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#### **SECTION IX - STORAGE PRECAUTIONS**

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N/A

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#### **SECTION X- ENVIRONMENTAL PROTECTION**

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**SPILLS:** N/A

**WASTE DISPOSAL:** Dispose as a solid non-hazardous waste, in accordance with federal, state, and local regulations.

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#### **SECTION XI – Other Regulatory Information**

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**WHMIS (Canada):** Status: Not Controlled  
Classification: None

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## SUPPLEMENTAL INFORMATION

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Vermiculite: This product is a chemically delaminated vermiculite dispersed in 80-95% water. The vermiculite used in this product is a naturally occurring mineral mined in South Carolina which contains tremolite in the ore body. Except for trace amounts, the tremolite which is predominately non-fibrous is removed from the vermiculite during processing.

In an effort to assure that this product is high purity, the supplier has retained the services of an outside independent laboratory. This laboratory has analyzed samples using state-of-the-art electron microscopy at 10,000x. Using this technique, no fibrous tremolite has been detected.

Quartz: This product can contain quartz (Crystalline Silica). Quartz is a naturally occurring mineral that is commonly contained in materials that are mined from the earth's surface such as sand, limestone, clay and gypsum. Quartz is represented by the combined fractions of non-respirable sized particles and of respirable sized particles (less than ten microns in aerodynamic diameter). Respirable sized quartz has been tied to more serious health effects (silicosis and lung cancer). The supplier has not been able to detect any respirable sized quartz in Microlite Vermiculite Dispersion based on industrial hygiene sampling conducted during spray drying of the material. Due to the high volume of product handled, they believe the highest potential for exposure existed during this process. In addition, this product when sold to their customers is in a liquid state which further decreases the potential for exposure to any respirable sized dusts.

In addition, a wet sieving analysis combined with x-ray diffractometry has been conducted on Microlite Vermiculite Dispersion. Results indicate that respirable quartz is not present above the 0.1% by weight limit established by the Occupational Safety and Health Administration (OSHA) for carcinogens and in fact is below the limits of detection for the analysis. OSHA states that if the hazardous substance is contained in the product below 0.1% by weight and if exposures do not exceed permissible exposure limits then the hazards do not apply.

## Material Safety Data Sheet

May be used to comply with  
OSHA's Hazard Communication Standard,  
29 CFR 1910.1200. Standard must be  
consulted for specific requirements.

## U.S. Department of Labor

Occupational Safety and Health  
Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072

IDENTITY <i>(As Used on Label and List)</i>	Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.
Style Fiberglass	

### Section I

Manufacturer's Name  John Tillman Company	Emergency Telephone Number 800-255-5480
Address <i>(Number, Street, City, State, and ZIP Code)</i>	Telephone Number for information 800-255-5480
1300 W Artesia Blvd	Date prepared 9-13-06
Compton, CA 90220	Signature of Preparer <i>(optional)</i>

### Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% <i>(optional)</i>
E-Glass				
According to DIN 1259 Part 1, Aluminum-Borsilicate-Glass with alkali				
Oxides content: > 1 wght. %				
Glass count : > 98,8 wght. %				
Sizing count: < 1,2 wght.%				
Fabric of continuous glass filaments				

### Section III - Physical/Chemical Characteristics

Boiling Point	N/A	Specific Gravity (H <sub>2</sub> O = 1)	
Vapor Pressure (mm Hg)	N/A	Melting Point	1545 F.
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	
Solubility in Water Insoluble			
Appearance and Odor Colorless/ No Odor			

### Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) Not applicable	Flammable Limits	LEL	UEL
Extinguishing Media			
Special Fire Fighting Procedures, Recommended extinguisher : Water, foam, powder			
Unusual Fire Explosion Hazards: E-glass fabrics are not combustible.			
Combustible are packing material such as cardboard, PE folly and wood.			

(Reproduce locally)

OSHA 174, Sept. 1985

### Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid None
	Stable	X	
Incompatibility ( <i>Materials to Avoid</i> )			
Hazardous Decomposition or By products None			
Hazardous Polymerization	May Occur		Conditions to Avoid None
	Will Not Occur	X	

## Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin? Gently remove fiber with soap and water.	Ingestion?
<b>Health Hazards (<i>Acute and Chronic</i>)</b> Glass fiber can lead to temporary irritation on skin, mucous membrane and eyes			
<b>General Advice:</b> Gently remove fibers from skin mucous membrane and eyes			
Mucous Membrane: Encourage coughing with mucous producing solutions (i.e inhalation of water steam) Eye contact: Gently remove coarse fiber, rinse fine fiber with water from nose to corner of eye.			
Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
<b>Signs and Symptoms of Exposure</b>			
<b>Medical Conditions</b> Generally Aggravated by Exposure When swallowed: Without importance			
<b>Emergency and First Aid Procedures</b> No specific medical precaution necessary			
<b>Toxicological Data:</b> Textile glass products do not contain hazardous or toxic ingredients.			
Textile glass products are not carcinogenic. They have a nominal filament diameter of 9um-13um. The smallest possible filament diameter is 6 um.			
.According to the TRGS 905 (April 1996) fine fiber dust can be carcinogenic only if all the following conditions are fulfilled.			
Fiber length <5um, diameter <3um, ratio of length to diameter <3:1			

## Section VII - Precautions for Safe Handling and Use

<b>Steps to Be Taken in Case Material is Released or Spilled</b>
Waste materials identification code: 31416 Mineral fiber waste
Textile glass fiber is made from mineral raw material and do not have essential organic substances. They are not biologically decomposable. Textile glass fibers are ecologically

harmless.
Waste Disposal Method Local waste disposal decrees.
Precautions to Be taken in Handling and Storing: Wear safety gear (gloves, glasses, dust mask) in order to minimize the possible risk of contact with skin, mucous membranes and eyes and decrease irritations and allergies.
Storage: Store in a dry place and in manufacturer bag. Avoid direct sun light. Best storage conditions-temperature between 10-35 C(50-95 F) Humidity between 40% and 70%.
Other Precautions None Known

## Section VIII - Control Measures

Respiratory Protection ( <i>Specify Type</i> )		
Ventilation	Local Exhaust      N/A	Special N/A
	Mechanical ( <i>General</i> ) N/A	Other None known
Protective Gloves Yes	Eye Protection Yes	
Other Protective Clothing or Equipment Dust mask		
Work/Hygienic Practices: Wash with soap and water after handling. Vacuum- cleaning at the job site for fine fiber dust.		

\* U.S.G.P.O.: 1986 - 491 - 529/45775