V2 Fiberglass Fabrics Safety Data Sheet

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: **V2 Fiberglass Fabrics**
Other names: Multiaxial fabric, stitched fabric, non-crimp fabric, knitted fabric
Synonyms: CSM, CMAT, M-18G, M-20G, M-29G, MV, PGM, UT, V, VB, VI, VIX, VT, VTT, VTX, VU, VX, VXV, WR
Recommended use: For use in composite, roofing or other industrial applications as a reinforcement in combination with other materials.
Restrictions of Use: None
Manufacturer's Name: **V2 Composites, Inc.**
Address: 770 Lee Road 191 Auburn, Alabama 36830
Telephone: 334-502-3000
Emergency phone number 334-502-3000
Facsimile: 334-502-3088
Website: www.v2composites.com

SECTION 2 - HAZARDS IDENTIFICATION

OSHA/HCS status: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture: Not classified.

GHS label elements

Signal word: No signal word.
Hazard Statements: No known significant effects or critical hazards.

Precautionary Statements

Prevention: Not applicable.
Response: Not applicable.
Storage: Not applicable.
Disposal: Not applicable.
Supplemental label elements: Emits toxic fumes when heated.
Hazards not otherwise classified: None known.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: Fiber Glass (E-type, continuous filament, non-respirable)
Polyester Veil
Polyester Yarn (POY, Polyethylene Terephthalate Partially Oriented)
Sizing (Organic Surface Binder)

Common Name and Synonyms: Fiber Glass: E-Glass, glass mat, multiaxial, stitched, non-crimp, knitted fabric
Polyester Veil: Nonwoven, CFM, CSM, Flow Media
Polyester Yarn: V-Lock
Sizing: Binder

Mixtures:

Ingredient Name	% by Volume	CAS number
Fiber Glass	80-100%	65997-17-3
Polyester Veil	0-25%	25038-59-9
Polyester Yarn	0-5%	25038-59-9
Sizing	0-5%	Not available

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Any concentration shown as a range is to protect confidentially or is due to batch variation.
There are no additional ingredients, present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the enviroment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4 - FIRST AID MEASURES

Relevant routes of exposure

Inhalation: Remove from area to fresh air. If symptoms persist, contact a poison control center, emergency room, or a physician for treatment information.

Eye Contact: Remove contact lens and pour a gentle stream of warm water through the affected area for 15 minutes. Do not rub or scratch eyes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

Skin Contact: Remove contaminated clothing and shoes. Run cold water over the affected ares for 15 minutes with mild soap, Do not use warm water. DO NOT rub or scratch affected area. If irritation persists or glass fiber becomes embedded, seek medical attention.

Ingestion: Gently wipe or rinse the inside of the mouth with water. Sips of water can be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room, or physician for treatment information.

SECTION 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Dry chemical, foam, carbon dioxide and water fog.

Unsuitable Extinguishing Media: None known

Specific Hazards from the chemical during a fire: Material is not an electrical conductor and may accumulate a static charge.

Hazardous thermal decomposition products: Fiberglass will not burn, but smoking of the product may occur at approximately 400-500 deg.F (approximately 200-260 deg C) due to decomposition of the surface binder. Surface binders may decompose in a fire situation and release carbon monoxide, carbon dioxide and water. Additionally, there are many chemicals that can evolve during any partial decomposition of chemical products. The amounts or identities cannot be predicted and can differ in each case.

Special protective equipment for fire-fighters: Fiberglass will not support combustion, but in a sustained fire, proper protection such as a self-contained breathing apparatus (SCBA) and full firefighting gear should be worn.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protection equipment recommended in Section 8.

Environmental Precautions: No special precautions are needed in case of a release or spill.

Containment: This material will settle out of the air. Prevent from spreading by covering.

Methods for clean up: Use an industrial vacuum cleaner with a high efficiency filter to clean up dust
Sweep or gather up material and place in proper container for disposal or recovery.
Use vacuuming or wet sweeping methods instead of dry sweeping.

SECTION 7 - HANDLING AND STORAGE

Handling: Avoid dust formation, do not breath dust and wear personal protective equipment.

Advice on general hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Storage: Store at or below 25 degrees Celsius (77*F) and relative humidity about 65% for optimum performance. Material is not an electrical conductor, and may accumulate static charge.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:
8-hour Time Weighted Average (TWA); 15-minute Short-Term Exposure Limit (STEL)

OSHA: 15mg/m3 TWA 5mg/m3 TWA (respirable dust) 15mg/m3 TWA (total dust)

ACGIH TLV: TWA: 1f/cc Form: Continuous filament glass fibers
TWA: 5mg/m3, Inhalable form: Continuous filament glass fibers
TWA: 3mg/m3 Form: Respirable
TWA: 10mg/m3 Form: Total dust

ACGIH TLV US 6/13: TWA: 5mg/m3 8 hours, Form: Inhalable fraction
TWA: 1f/cc 8 hours. Form: Respirable fibers: length greater than 5uM; aspect ratio equal to or greater than 3:1 as determined by the membrane filter method at 400-450x magnification(4-mm objective) phase contrast illumination.

Engineering Controls: Use local exhaust or general room/dilution ventilation sufficient to maintain employee exposure below permissible exposure limits.

Eye Protection: Standard safety glasses with side shields.

Skin Protection: Protective gloves and long sleeved shirt and long pants.

Hygiene Measures: Wash hands before and after breaks. Wear clean, body-covering clothing. Good personal hygiene and the use of barrier creams, caps, protective gloves, cotton coveralls or long sleeved loose fitting clothing will maximize comfort. Vacuum equipment may be used to remove fibers from clothes. Work clothing should be laundered separately form other clothing before reuse.

Respiratory Protection: If dust is generated and ventilation is inadequate, use respirator that will protect against dust/mist. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Appearance/Color:	White or off white
Odor:	Odorless
Odor Threshold:	NA
Vapor Pressure:	NA
Vapor Density:	NA
pH:	NA
Relative Density:	2.6-2.7 g/cc(bare glass)
Solubility (wt.% in water):	Insoluble
Freezing/Melting Point:	>~1400*F (800*C)
Boiling Point:	NA
Flash Point:	NA
Evaporation Rate:	NA
Flammability:	NA
Explosive limits:	NA
Partition coefficient: n-octanol/water	NA
Auto Ignition Temp:	NA
Decomposition Temp:	NA
Viscosity:	NA
Volume % Volatile:	none
Percent Solid	100

SECTION 10 - STABILITY AND REACTIVITY

Reactivity:	No specific test data related to reactivity available for this product or its ingredients.
Chemical Stability:	This product is stable.
Possible hazardous reactions:	Hazardous reactions will not occur under normal conditions.
Conditions to avoid:	When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials:	None known.
Hazardous decomposition products:	Fiberglass products may release small amouts of acetic acid and other organic materials at elevated temperatures.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute toxicity: No known significant effects or critical hazards.

Irritation/Corrosion:

Skin: No known significant effects or critical hazards.

Eyes: No known significant effects or critical hazards.

Respiratory: No known significant effects or critical hazards.

Sensitization:

Skin: No known significant effects or critical hazards.

Respiratory: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Classification

Product/ingredient name	OSHA	IARC	NTP
glass, oxide, chemicals	-	3	-

Reproductive toxicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Specific target organ toxicity (single exposure): Not available.

Specific target organ toxicity (repeated exposure): Not available.

Target Organs: Contains material which may cause damage to the following organs: upper respiratory tract, skin, and eyes.

Aspiration hazard: Not available.

Likely routes of exposure

Potential acute health effects

Eye Contact: Dusts from this product may cause temporary mechanical irritation.

Inhalation: Dusts from this product may cause temporary mechanical irritation.

Skin Contact: Dusts from this product may cause mechanical irritation of the nose, throat and respiratory tract.

Ingestion: Although ingestion of this product is not likely to occur in industrial applications, accidental ingestion may cause illness or irritation of the mouth and gastrointestinal tract.

Over-exposure signs/symptoms

Eye Contact: No specific data.

Inhalation: No specific data.

Skin Contact: No specific data.

Ingestion: No specific data.

Delayed and immediate effects and chronic effects of short and long term exposure

SUMMARY: There are no known health effects from the long term use or contact, with **nonrespirable** continuous filament fibers. As manufactured, the glass fibers in this product are nonrespirable. Nonrespirable fibers cannot reach the deep lung because they have a diameter of greater than 3.5 micrometers. Fibers of this diameter cannot penetrate the narrow, bending passages of the human respiratory tract to reach the lower regions of the lung and thus, have no possibility of causing serious pulmonary damage. Instead, they deposit on the surface of the upper respiratory tract, nose, or pharynx. These fibers are then cleared through normal physiological mechanisms.

Chopped, crushed, or severely mechanically processed fiber glass may contain a very small amount of respirable fibers that could reach the deep lung. The measured airborne concentration of these respirable fibers in areas where severe processing of fiberglass occurred has been shown to be extremely low and well below the TLV. Repeated or prolonged exposure to respirable glass fibers may cause fibrosis, lung cancer and mesolthelioma. PPG fiber glass in the form supplied, does not contain respirable fibers.

Animal Study: In 2000, the Institute of Occupational Medicine (IOM) in Scotland published the results of a long term inhalation study in animals exposed to special application E-glass continuous filament respirable fibers. Animals were exposed to a very high concentration of these respirable fibers (1022 fibers/cc for 5 hours/day, 7 days/week for 52 weeks). Exposure to these microfibers resulted in the development of fibrosis, lung cancer and mesothelioma.

Epidemiology Studies: Two major studies in the US (performed by the University of Pittsburgh) and Europe (performed by the International Agency for Research on Cancer) showed no increase in lung cancer or respiratory disease among people working in fiber glass production facilities. An additional smaller study performed in Canada also did not show an association between exposure of workers to fiber glass and respiratory cancer.

Short term exposure

Potential immediate effects: No known significant effects or critical hazards.
Potential delayed effects: No known significant effects or critical hazards.

Long term exposure

Potential immediate effects: No known significant effects or critical hazards.
Potential delayed effects: No known significant effects or critical hazards.

Potential Chronic health effects

General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Delevopmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Acute toxicity estimates: Not available.

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity: Not available
Persistence and degradability Not available
Bioaccumulative Potential Not available
Mobility in soil
Soil/water partition coefficient(Koc): Not available

SECTION 13 - DISPOSABLE CONSIDERATIONS

Disposal Method: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to **Section 7: HANDLING AND STORAGE** and **Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION** for additional handling information and protection of employees, as well as **Section 6: ACCIDENTAL RELEASE MEASURES**.

SECTION 14 - TRANSPORT REGULATIONS

Transport Classification: This product is not classified as a hazardous chemical and not regulated for transport.

Special Precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15 - REGULATORY INFORMATION

USA TSCA:	All components are listed or exempted.
EUROPE REACH:	All components are listed or exempted.
DSL: CANADA	All components are listed or exempted.
AUSTRALIA AICS:	All components are listed or exempted.
NEW ZEALAND(NZIoC):	All components are listed or exempted.
KOREA KECI:	All components are listed or exempted.
JAPAN MITI (ENCS):	All components are listed or exempted.
PHILIPPINES PICCS:	All components are listed or exempted.
CHINA IECSC:	All components are listed or exempted.

UNITED STATES

SARA 302/304:

SARA 304 RQ	Not applicable
Composition/information on ingredients	No products were found

SARA 311/312:

Classification:	Not applicable
Composition/information on ingredients	No products were found

SECTION 16 - OTHER INFORMATION

HMIS HEALTH HAZARD:	1
HMIS FLAMMABILITY HAZARD	0
HMIS REACTIVITY	0

The customer is responsible for determining the PPE code for this material.

SDS ISSUE DATE:	5/21/2015
SDS VERSION NUMBER:	1
SDS FORMAT:	(HCS)(29 CFR 1910.1200(g))
SDS REVISION NOTES:	
SDS AUTHOR:	DLM/ACM

Disclaimer: V2 Composites does not manufacture the components in the product. Component safety data sheets are available upon request. The SDS originates from the component SDS. Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.