

GHS SAFETY DATA SHEET (SDS)

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: PART #1069, #2069 - 5.7oz Graphite 3K 2 x 2 Twill Weave 50" Wide & 60" Wide

FIBRE GLAST DEVELOPMENTS CORP. 385 Carr Drive BROOKVILLE, OH 45309 TELEPHONE: (937) 833-5200 FAX: (937) 833-6555 FOR CHEMICAL EMERGENCY CALL (801) 629-0667 24 HRS.

RECOMMENDED USE: Standard Composite Manufacturing

SECTION 2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA Regulatory Status Physical Hazards Health Hazards Environmental Hazards	 This Product is Not Hazardous under the OSHA Hazard Communication Standard. Combustible Dust - USH01 Not Classified Not Classified
Physicochemical	: Physical: Carbon fiber contained in some products iselectrically conductive.
Label elements	
Signal Word	: Warning
Hazard Statements	: USH01 May form combustible dust concentrations in air

Other hazards

Warning! This may cause mild, temporary mechanical eye and skin irritation. Vapor or fumes evolved during use and/or heating or curing the product may cause respiratory tract and eye irritation. Dust or particulates from machining, grinding or sawing the cured product may cause skin, eye and upper respiratory tract irritation, allergic skin reaction and possible sensitization.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<u>Mixtures</u>

Composition comments

: Carbon fiber can be with or without size. Graphite (carbon)synthetic fibers, filament diameter > 4um:,>97% w/w, Size:, <3% w/w

SECTION 4 – FIRST AID MEASURES

Description of first aid measures

Inhalation	: With any sign of respiratory distress, affected persons should be taken into fresh air, and made to rest while medical attention is sought.	
Ingestion	: Immediately rinse the mouth repeatedly with water, if swallowing has occurred, do not induce vomiting. If requested, give affected person sips of water. Seek medical attention immediately. Ifvomiting does occur do not allow the affected person to inhale their vomit. Do not give anything by mouth to an unconscious person.	
Skin Contact	: In case of contact with the product or the cured product dust or particulate, immediately wash skin with mild soap and water. Use a washcloth to help remove the fibres. To avoid further irritation, do not rub or scratch irritated areas. Rubbing or scratching may force fibres into the skin. Get medical attention immediately if theirritation persists.	
Eye Contact	: In case of contact with the product or the cured product dust or particulate, immediately flush eyes with large amounts of water forat least 15 minutes, keeping the eyelids open. Get medical attention immediately.	
Most important symptoms and effects, both acute and delayed		
General information	: Filaments are mechanical irritants and may induce temporary mouth, nose and throat irritation. Skin or eye contact may cause itching and temporary irritation. Ingestion may cause temporary mechanical irritation of the digestive tract. Pre-existing conditions such as respiratory or skin disorders may be aggravated by exposure to the product or dust/particulate generated from machining/grinding of the cured product.	

SECTION 5 – FIRE-FIGHTING MEASURES

Extinguishing media	
Suitable extinguishing media	: Extinguish with foam, carbon dioxide, dry powder or waterfog.
Unsuitable extinguishing media	: Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards	: Carbon fibers contained in some products are electrically conductive and if released during combustion may present a hazard to unprotected electrical apparatus.
Hazardous combustion products	: Above 650°C, if incomplete combustion occurs and depending onair supply and temperature, there may be release of carbon monoxide and dioxide and products of low molecular weight.
Advice for firefighters	
Special protective equipment for firefighters	: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures		
Personal precautions	: Avoid contact with skin, eyes or clothing.	
Environmental precautions		
Environmental precautions	: Due to the physical nature of this product, environmental release to drains and water courses is not possible.	
Methods and material for containment and cleaning up		
Methods for cleaning up	: Clean up material and put into a suitable container and dispose of properly (See Section 13).	
Reference to other sections	: For personal protection, see Section 8. For waste disposal, see Section 13.	

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling		
Usage precautions	: Handling: Avoid direct contact with product. Avoid inhalation of dust/fumes generated during processing operations. Dust produced from handling and machining product will contain fibrous material. Avoid inhalation and provide positive dust extraction and collection from cutting zone. Protect against fire and explosion by avoiding dust formation and ignition sources when machining cured product. Dust from products containing carbon fibre is electrically conductive.	
Conditions for safe storage, including any incompatibilities		
Storage precautions	: Keep container tightly closed and dry.	
<u>Specific end use(s)</u>		
Specific end use(s)	: As this product is an article, this section is not applicable.	

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure controls

Protective equipment

Appropriate engineering Controls	: Provide adequate ventilation
Eye/face protection	: Eyewear complying with an approved standard should be worn ifa risk assessment indicates eye contact is possible.
Hand protection	: It is recommended that gloves are made of the followingmaterial: Polyvinyl chloride (PVC). Rubber (natural, latex)
Other skin and body protection	: Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	: Wash at the end of each work shift and before eating, smokingand using the toilet.
Respiratory protection	: Wear a suitable dust mask.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties	
Appearance	: Black colored fiber
Color	: Black.
Odor	: No characteristic odor.
Odor threshold	: It is not relevant as there is not toxiceffect.
pH	: Not relevant due to the physical form of this product.
Melting point	: Carbon fiber 6512 F / 3600 C°C
Initial boiling point and range	: Not relevant due to the physical form of this product.
Flash point	: Not relevant due to the physical form of this product.
Evaporation rate	: Not relevant due to the physical form of thisproduct.
Evaporation factor	: Not relevant due to the physical form of this product.
Flammability (solid, gas)	: May form combustible dust concentrations in air.
Vapour pressure	: Not relevant due to the physical form of this product.

Vapour density	: Not relevant due to the physical form of this product.
Relative density	: Not relevant due to the physical form of this product.
Solubility(ies)	: Not relevant due to the physical form of this product.
Auto-ignition temperature	: Not relevant due to the physical form of this product.
Explosive properties	: Not classified as explosive but dust or airborne filaments could induce explosion in high voltage equipments by shortcircuit.
Oxidizing properties	: Does not meet the criteria for classification as oxidizing.

SECTION 10 - STABILITY AND REACTIVITY

Stability	: Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	: Will not occur under normal conditions of use.
Materials to avoid	: Strong oxidizing agents.
Hazardous decomposition products	: The products of combustion and decomposition depend on other materials present in the fire and the actual conditions of the fire. Burning will produce carbon and nitrogen oxides and other unidentified gases and vapors that may be toxic. Avoid inhalation.

SECTION 11 – TOXICOLOGICAL INFORMATION

Information on toxicological effects	
Toxicological effects	: Continuous filament of carbon fiber with a filament diameter >4um are not considered respirable. World Health Organization defines a respirable fiber as a fiber with a diameter (d) <3um, a length (l) > 5um and l/d ratio >/=3
Other health effects	: The components present in this material at concentrations equal to or greater than 0.1% are not listed or regulated by IARC, NTP, OSHA or ACGIH as a carcinogen.
Inhalation	: May cause irritation to the upper respiratory tract. Vapor or fumes generated from exposing this product to elevated temperatures may cause irritation to the respiratory tract. Dust or particulate from machining, grinding or sawing the cured product may cause irritation to the upper respiratory tract.
Ingestion	: None expected under normal conditions of use. Ingestion is not an expected route of industrial exposure.
Skin Contact	: Contact may cause mechanical irritation, skin redness, itching and drying of the skin. Prolonged or repeated contact may cause allergic skin reaction, dermatitis and possible sensitization.

Eye Contact	: May cause mechanical irritation. Vapor or fumes generated from exposing the product to elevated temperatures may cause irritation. Dust or particulate from the product or from machining, grinding or sawing the product may cause mechanical irritation.
Medical Considerations	; Preexisting eye, skin or respiratory disorders may be aggravated by contact and/or exposure to the product, the vapor or fumes generated from heating the product or to the dust or particulate from machining, grinding or sawing the cured product.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity	: No ecological data has been determined on the total product.
<u>Toxicity</u> Toxicity	: Not regarded as dangerous for the environment.
<u>Persistence and degradability</u> Persistence and degradability	: Not relevant due to the physical form of this product.
<u>Bioaccumulative potential</u> Bio-Accumulative Potential	: Not relevant due to the physical form of this product.
<u>Mobility in soil</u> Mobility	: Not relevant, due to the form of the product.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste treatment methods	
General information	: Materials for disposal should be placed in appropriate sealed containers to avoid potential human and environmental exposure. It is the responsibility of the generator to comply with all federal, state, provincial and local laws and regulations. We recommend that you contact an appropriate waste disposal contractor and environmental agency for relevant laws and regulations. Under the U.S., Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets relevant waste classification and to assure proper disposal.
Disposal methods	: Dispose of waste and residues in accordance with local authority requirements. For products containing carbon fiber, it is possible to recycle the carbon component.

SECTION 14 – TRANSPORT INFORMATION

General

: This Product is not dangerous to transport.

<u>UN Number</u> This product is not dangerous to transport.

UN proper shipping name

This product is not dangerous to transport.

Transport hazard class(es)

This product is not dangerous to transport.

Packing group

This product is not dangerous to transport.

Environmental hazards Environmentally HazardousSubstance

This product is not dangerous to transport.

SECTION 15 - REGULATORY INFORMATION

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities. Not listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA) Not listed.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities Not listed.

Sara 313 Emission Reporting Not listed

RCRA

: RCRA information: Currently, the product is not listed in the federal hazardous waste regulation 40 CFR, Part 261.33, paragraphs € or (F), i.e. chemical products that are considered hazardous if they become waste. State or local hazardous waste regulations may also apply if they are different from the federal regulation.

SECTION 16 – OTHER INFORMATION

Revision Date

August 28, 2019

The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with Fibre Glast Developments or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.