GHS SAFETY DATA SHEET (SDS)

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: Part #1064 – Carbon Fiber Veil

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: Advanced Nonwoven Fiber for use with Standard Composite Manufacturing

SECTION 2 – HAZARDS IDENTIFICATION

GHS CLASSIFICATION

As supplied, this product is expected to pose no immediate health or fire hazard. Dust generated during subsequent processing may pose the hazards noted. (OSHA defined hazards – combustible dust)

GHS Label Element

Hazard pictograms	: N/A
Signal word	: Warning
Hazard statements	: May form combustible dust concentrations in air.
Precautionary statements	: P210 Keep away from heat, hot surfaces, sparks, open flames. No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. Prevent dust accumulation to minimize explosion hazard. Observe good industrial hygiene practices. P362+364 Take off contaminated clothing and wash before reuse. P370+378 IN CASE OF FIRE: Use appropriate media to extinguish. Dispose of water and residues in accordance with local authority requirements.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	CAS-No.	Concentration (%)
Carbon	7440-44-0	50 - 70
Urea	57-13-6	0.5 - 1

SECTION 4 – FIRST AID MEASURES

Inhalation: Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact: Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact: Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

Ingestion: Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed: Dusts may irritate the respiratory tract, skin and eyes. Coughing.

Indication of immediate medical attention and special treatment needed: Treat symptomatically.

General information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO_2). Apply extinguishing media carefully to avoid creating airborne dust.

Unsuitable extinguishing media: Do not use jet water as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: Explosion hazard: Avoid generating dust; fine dust dispersed in airin sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions: In case of fire/explosion, do no breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods: Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards: May form combustible dust concentrations in the air

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, emergency procedures: Use personal protective equipment: Use only non-sparking tools. Keep unnecessary personnel away. Keep people away from the upwind of spill/leak. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fumes at levels exceeding the exposure limits. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained For personal protection, see Section 8 of the SDS.

Methods/materials for containment and cleaning up: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk. Collect dust using a vacuum cleaner equipped with HEPA filter.

For large spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recover, flush area with water.

For small spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Never return spills to original containers for reuse. For waste disposal, see Section 13 of SDS.

Environmental precautions: Avoid discharge into drains, water courses, or onto the ground.

SECTION 7 – HANDLNG AND STORAGE

Precautions for safe handling: Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surface. No smoking. Explosion-proof general and local exhaust ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Condition for safe storage, including any incompatibilities: Keep containers tightly closed in a dry, cool, and well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

U.S. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Carbon (CAS 7440-44-0)	TWA	15 mppcf	
Additional Components	**Type**	**Value**	**Form**
Dust	TWA	5 mg/m^3	Respirable fraction
		15 mg/m^3	Total dust
		50 mppcf	Total dust
		15 mppcf	Respirable fraction

U.S. ACGIH Threshold Limit Values

Components	Type	Value	Form
Dust	TWA	3 mg/m^3	Respirable particles
		10 mg/m^3	Inhalable particles

U.S. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Carbon (CAS 7440-44-0)	TWA	2.5 mg/m^3	Respirable

U.S. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
Urea (CAS 57-13-6)	TWA	10 mg/m^3	Total particulate

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measure are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn.

Individual protection measures such as protection equipment:
Eye/face protection: Face shield is recommended. Wear safety glasses with side shields (or goggles).
Skin protection (hands and otherwise): Wear protective gloves. Suitable gloves can be recommended by the glove supplier. Wear suitable protective clothing.
Respiratory protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NOIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.
Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations: When using, do not eat, drink, or smoke. Always observe good personal hygiene measures, such as washing after handling the materials and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance Physical State	: Solid
Form	: Roll.
Color	: Black
Odor	: Not available
Odor Threshold	: Not available
pH	: Not available
Freezing point/Melting point	: Not available
Initial Boiling Point/Boiling Range	: Not available
Flash point	: Not available
Evaporation rate	: Not available
Flammability (solid, gas)	: Fine particles may form explosive mixtures with air.
Upper/Lower Flammability Explosive Limits	: Not available
Vapor pressure	: Not available
Vapor Density	: Not available
Relative Density	: Not available
Solubility	: Not available
Partition Coefficient (n-octanol/water)	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Viscosity (actual VOC)	: Not available
Explosive Properties	: Not explosive
Oxidizing Properties	: Not oxidizing

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: This product is stable and non-reactive under normal conditions of use, storage, and transport.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous reactions: No dangerous reactive known under conditions of normal use.

Conditions to avoid: Keep away from heat, sparks, and open flame. Minimize dust generation and accumulation. Contact with incompatible materials.

Incompatible materials: Chlorine. Strong oxidizing agents.

Hazardous decomposition products: Fire or excessive heat may produce hazardous decomposition products.

SECTION 11 – TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Inhalation: Dust may irritate respiratory system. Prolonged inhalation may be harmful.
Skin contact: Dust or powder may irritate skin.
Eye contact: Dust may irritate the eyes.
Ingestion: May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
Symptoms related to the physical, chemical, and toxicological effects: Dusts may irritate the respiratory tract, skin, and eyes.

Information on toxicological effects
Acute toxicity: Not expected to be acutely toxic.
Carbon (CAS 7440-44-0)

Acute

Components	Species	Test results
LD50 Oral	Rat	>10000 mg/kg

Skin corrosion/irritation: Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation: Direct contact with eyes may cause temporary irritation.
Respiratory sensitization: Not a respiratory sensitizer
Skin sensitization: This product is not expected to cause skin sensitization.
Germ cell mutagenicity: No data available to indicate product or any components present a greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity: This product is not considered to be a carcinogenic by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed

Reproductive toxicity: This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity – single exposure: Not classified
Specific target organ toxicity – repeated exposure: Not classified
Aspiration hazard: Due to the physical form of the product it is not expected to be an aspiration hazard.
Chronic effects: Prolonged inhalation may be harmful

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability: No data is available on the degradability of this product.

Bioaccumulative potential: Partition co-efficient n-octanol/water (log Kow): Urea (CAS 57-13-6) = -2.11

Mobility in soil: No data available

Other adverse effects: No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations: Dispose in accordance with all applicable regulations.

Hazardous waste code: The waste code should be assigned in discussion between the user, the producer, and the waste disposal company.

Waste from residues/unused products: Dispose of in accordance with local regulations. Empty containers liners may retain some product residues. This material and its container must be disposed of in a safe manner (see disposal instructions).

Contaminated packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14 - TRANSPORT INFORMATION

DOT: Not regulated as dangerous goods.
IATA: Not regulated as dangerous goods.
IMDG: Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

SECTION 15 - REGULATORY INFORMATION

U.S. federal regulations: This product is a "Hazardous Chemical" as defined by OSHA Hazardous Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt.D): Not regulated

OSHA Specifically Regulated Substances (29 CRF 1910.1001-1050): Not regulated

CERCLA Hazardous Substance List (40 CFR 302.4): Not listed

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard Categories:
Immediate hazard: No
Delayed hazard: No
Fire hazard: Yes
Pressure hazard: No
Reactivity hazard: No

SARA 302 Extremely hazardous substance: Not listed

SARA 311/312 Hazardous Chemical: Yes

SARA 313 (TRI reporting): Not regulated

Other federal regulations:
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated
Safe Drinking Water Act (SDWA): Not regulated

U.S. state regulations:
U.S. Massachusetts RTK-Substance list: Carbon (CAS 7440-44-0)
U.S. New Jersey Worker and Community Right-to-Know Act: Carbon (CAS 7440-44-0)
U.S. Pennsylvania Worker and Community Right-to-Know Law: Carbon (CAS 7440-44-0)
U.S. Rhode Island RTK: Carbon (CAS 7440-44-0)
U.S. California Proposition 65: WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.
U.S. California Proposition 65 – Carcinogens & Reproductive Toxicity (CRT): Listed substance: Formaldehyde (CAS 50-00-0)

International Inventories:
This products is NOT on any of the listed inventories.

Country/Region	Inventory Name	On Inventory (Y/N)
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country.

SECTION 16 – OTHER INFORMATION

Revision Date

5/5/2023

Refer to NFPA 654, Standard for the Prevention for the Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

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