



ENGINEERED TEXTILE SOLUTIONS & ASSOCIATES, LLC

CARBON FIBER PREPREG

MATERIAL SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND COMPANY

a) Product identifier

General carbon fiber based epoxy prepreg.

b) Relevant identified uses of the substance or mixture and uses advised against

Recommended use: To be determined by consumer.

Uses advised against: No specific uses advised against are identified.

c) Details of the supplier of the safety data sheet

Engineered Textile Solutions & Associates LLC

2 Corporate Drive, Suite 648,

Shelton,

CT 06484

United States

Tel: +1 203 656 2380

Email: accounting@engtexsol.com

SECTION 2: HAZARDS IDENTIFICATION

a) Hazard-Risk Classification:

Carcinogenicity: Category 2

Skin Corrosion/Irritation: Category 2

Serious Eye Damage/Eye Irritation: Category 2

Skin Sensitization: Category 2

Hazardous to the Aquatic Environment – Chronic: Category 2

b) Label Elements Including Precautionary Statements:

- Symbol:



- Signal Word: Warning



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- Hazard Statements:

H315 : Causes skin irritation

H317 : May cause an allergic skin reaction

H319 : Causes serious eye irritation H351 : Suspected of causing cancer H411 : Harmful to aquatic life with long lasting effects.

- Precautionary statements

Prevention

P261 : Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 : Wash ... thoroughly after handling.

P272 : Contaminated work clothing should not be allowed out of the workplace.

P273 : Avoid release to the environment.

P280 : Wear protective gloves/protective clothing/eye protection/face protection.

P281 : Use personal protective equipment as required.

Response

P302+P352 : IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 : If exposed or concerned Get medical advice/attention. P321 : Specific treatment (see ... on this label).

P332+P313 : If skin irritation occurs: Get medical advice/ attention.

P333+P313 : If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 : If eye irritation persists: Get medical advice/attention.

P362 : Take off contaminated clothing and wash before reuse.

P363 : Wash contaminated clothing before reuse.

P391 : Collect spillage.

Storage

P402 + P235 : Store in a dry. Keep Cool.

Disposal

P501 : Dispose of contents/container to...

- Other Hazard Risk Which Are Not Included In The Classification Criteria (NFPA)

Health : 2

Fire : 1

Reaction : 0

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS#	WEIGHT %
Carbon Fiber	7440-44-0	55 – 70
Partially reacted Epoxy Resin formulation	Trade secret	30 – 45



SECTION 4: FIRST AID MEASURES

a) Eye contact:

If particles get in eyes, flush with plenty of water for several minutes.

b) Skin contact:

If product irritates skin, wash area with mild soap and water.

c) Inhalation:

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

d) Ingestion:

Rinse out mouth. Drink plenty of water.

e) Indication of immediate medical attention and notes for physician:

Treat symptomatically. May cause sensitisation by skin contact.

SECTION 5: FIRE FIGHTING MEASURES

a) Suitable (and unsuitable) extinguishing media:

- Suitable extinguishing media: powder type fire extinguisher, water spray or bubble.

- Unsuitable extinguishing media: No data.

b) Specific hazards arising from the chemical:

In case of fire, it may generate toxic gas.

c) Special protective equipment and precautions for fire-fighters:

Please wear appropriate fire rescue clothing.

Please keep a safe distance from the fire.

Eliminate all ignition sources if safe to do so.

SECTION 6: ACCIDENTAL RELEASE MEASURES

A) Personal precautions, protective equipment and emergency procedures

Remove all fire sources.

Avoid breathing dust, fume, gas, mist, vapors, spray.

B) Environmental precautions and protective procedures

Seal the packaging container.

Prevent inflow into basements, enclosed spaces, waterways, or sewers.

C) Methods and materials for containment and cleaning up

Absorb with sand or non-flammable material.

Store in an airtight container.



SECTION 7: HANDLING AND STORAGE

A) Precautions for safe handling

Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep in a well-ventilated area. Avoid contact with skin, eyes or clothing.

B) Conditions for safe storage

Store in well ventilated area.

Keep well away from fire sources.

SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

a) Control parameters (e.g. occupational exposure limit values, biological limit values):

	OSHA(PEL)	Biological Limit Values
Carbon Fiber	No data	No data
Epoxy Resin Mixture	No data	No data

b) Appropriate engineering controls:

- **Local Exhaust:** Recommended when appropriate to control employee-exposure, especially at points where fragmentation or particulate generation may occur.
- **Mechanical (General) Ventilation:** May not be adequate as the sole means of controlling dust or lint.

c) Personal Protective Equipment:

- **Respiratory Protection:** Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure. A full facepiece respirator also provides eye and face protection. Cutting, grinding or sanding of parts fabricated after curing components listed above for potential hazardous components in the dust.
- **Eye Protection:** Wear safety goggles if dust or lint is present.
- **Hands Protection:** Wear Gloves when handling.
- **Body Protection:** Apply barrier cream or wear long sleeved shirt to prevent fibrous matter from contacting exposed skin. Wash work clothing frequently. Wash exposed skin areas before eating and at end of work day. Use good housekeeping practices to keep work area free of dust and fibers.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- a) **Appearance:** Resin impregnated carbon fiber
- b) **Odour:** No data
- c) **Odour threshold:** No data
- d) **pH:** No data



- e) Melting Point/Freezing Point: No data
- f) Initial Boiling Point and Boiling Range: No data
- g) Flash Point: No data
- h) Evaporation rate: No data
- i) Flammability (Solid, Gas): No data
- j) Upper/Lower Flammability or Explosive Limits: No data
- k) Vapor Pressure: No data
- l) Solubility: No data
- m) Vapor Density: No data
- n) Relative Density: No data
- o) Partition Coefficient: n-Octanol/Water: No data
- p) Auto-ignition Temperature: No data
- q) Decomposition Temperature: No data

SECTION 10: STABILITY AND REACTIVITY

a) Chemical Stability and Possibility of Hazardous Reactions:

Stable under normal temperature and pressure conditions.

b) Conditions to avoid:

Heat, sparks and open flame ignition sources.

c) Incompatible Materials:

Avoid contact with acids, oxidizing agents, bases or amines.

d) Hazardous Decomposition Products:

In case of fire, combustion may generate toxic gases, CO, CO₂, Oxides of nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

a) Information of the Likely Routes of Exposure:

- **Inhalation:** None known
- **Skin Contact:** Prolonged skin contact may cause temporary irritation
- **Eye Contact:** Dust in the eyes may cause irritation
- **Ingestion:** None known

b) Health Hazard Information

- Acute Toxic:

Oral: No data

Dermal: No data

Inhalation: No data

- Skin Corrosive/Irritant: causes skin irritation

- Serious Eye Damage/Eye Irritation: causes eye irritation

- Respiratory Sensitization: No data

- Skin Sensitization: No data



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- **Carcinogenicity:** No data
- **Germ Cell Mutagenicity:** No data
- **Reproductive Toxicity:** No data
- **Specific Target Organ Toxicity (Single Exposure):** No data
- **Specific Target Organ Toxicity (Repeated Exposure):** No data
- **Aspiration Hazard:** No data

SECTION 12: ECOLOGICAL INFORMATION

- a) Aquatic and Terrestrial Ecotoxicity: No data
- b) Persistence and Degradability: No data
- c) Bioaccumulative Potential: No data
- d) Mobility in Soil: No data
- e) Other Adverse Effects: No data

SECTION 13: DISPOSAL CONSIDERATIONS

a) Disposal Method:

Waste material should be bagged or containerized, sealed and disposed of in an approved landfill in accordance with federal, state and local regulations. Product as shipped is not considered a hazardous waste under current RCRA regulations.

b) Disposal Precaution (Including the Disposal Method of Contaminated Container and Packaging):

Do not incinerate.

SECTION 14: TRANSPORT INFORMATION

- a) UN Number: No data
- b) UN Proper Shipping Name: No data
- c) Transport Hazard Class: No data
- d) Packing Group (If Applicable): No data
- e) Marine Pollution (Yes/No): No data
- f) Special Precaution Which a User to Be Aware of or Needs to Comply With Transport or Conveyance Either Within or Outside Their Premises: No data

SECTION 15: REGULATORY INFORMATION

A) Occupational Safety and Health Act

Not Applicable



B) Toxic Chemical Control Act

Not Applicable

C) Safety Control Dangerous Substance Act

No data

D) Wastes Control Act

Waste matter

E) Other requirements in domestic and other countries

- POPs Management Law

Not Applicable

- U.S. Federal regulations

Not Applicable

* OSHA

Not Applicable

* CERCLA 103

Not Applicable

* EPCRA 302

Not Applicable

* EPCRA 304

Not Applicable

* EPCRA 313

Not Applicable

* California Proposition 65

Known Carcinogen = Epichlorohydrin. Known Reproductive Toxin = Epichlorohydrin.

- Information of EU Classification

* Classification

Not Applicable

* Risk Phrases

Not Applicable

* Safety Phrases

Not Applicable

SECTION 16: OTHER INFORMATION

a) Issue date: 21/06/2020

Engineered Textile Solutions & Associates LLC believes that the information presented in this Material Safety Data Sheet is accurate to the best of our knowledge, as of the date of the document. Engineered Textile Solutions & Associates LLC makes no representation or warranty as to the completeness or accuracy of the information. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

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