1. Identification

Product Identification

Product Identifier: CSS-CUCL
Recommended Use: Simpson Strong-Tie® Code-Listed Unidirectional Precured Carbon Laminate is for use for structural reinforcement.

Use Restrictions: None Known.

Company Identification

Company: Simpson Strong-Tie Company Inc.
Address: 5956 W. Las Positas Blvd. Pleasanton, CA  94588, USA
Phone: 1-800-999-5099
Website: www.strongtie.com
Emergency: 1-800-535-5053 (US/Canada) 1-352-323-3500 (International)

For most current SDS, please visit our website at www.strongtie.com/sds

2. Hazard Identification

General Information

CSS-CUCL Code-Listed Unidirectional Carbon Laminate is part of Simpson Strong-Tie’s® Composite Strengthening Systems™. CSS-CUCL is a light weight, high strength, non-corrosive carbon laminate for use for structural reinforcement. It is a code compliant, single component, solid product. The product has been assessed according to the Globally Harmonized System (GHS). This Safety Data Sheet covers hazards and responses for the safe use and handling of this product.

GHS Classification

Under normal conditions, carbon fiber laminate is not expected to pose any health or safety hazards. However, the cutting or processing of carbon laminate may result in the formation of dust/particles that can pose health and safety hazards. Additionally, carbon fiber is electrically conductive, which can result in the short-circuiting of electrical equipment. Customers with sensitivities may experience mild skin irritation or sensitization when working with carbon laminate. Ensure that good work practices and the necessary precautionary measures are taken to maintain safe use of the product.

Hazards Not Otherwise Classified (HNOC)

The following potential health and safety hazards are associated with the creation of dust/particles due to the cutting and processing of the carbon laminates. These health hazards are expected to be due to the mechanically abrasive nature of the dust/particles, and are expected to only be temporarily irritating.

Physical Hazards: Not Classified.
Health Hazards: Skin Corrosion/Irritation Category 3 H316: Causes mild skin irritation
Serious Eye Damage/Irritation Category 2 H319: Causes serious eye irritation
Sensitization, Skin Category 1 H317: May cause an allergic skin reaction
STOT, Single Exposure Category 3 H335: May cause respiratory irritation

Environmental Hazards: Not Classified.
OSHA Hazard: Combustible Dust Can form explosive air-dust mixtures; avoid creating dust.

Main Symptoms: Irritation of eyes and skin. Symptoms include redness, itching, burning, tearing, swelling, and blurred vision. May cause rash/allergic reaction to the skin. May cause shortness of breath or other respiratory distress/irritation.

Contains: Carbon Fiber, Poly(styrene-co-bisphenol-A epoxy divinyl ester)
Signal Word: WARNING!

Precautionary Statements:

Prevention: Do not allow dust to buildup on work surfaces.
P261: Avoid breathing dust.
P264: Wash hands thoroughly after handling.
P272: Contaminated clothing should not be allowed out of the workplace.
P280: Wear protective gloves/clothing/eye protection/face protection.

Response: P302+P352: IF ON SKIN: Wash with plenty of water.
3. Composition Information

General Information

This product is a mixture. Hazardous ingredients for each component are listed below. May include other nonhazardous ingredients. May include other trace ingredients, see Section 15.

List of abbreviations and symbols:
Classification: Globally Harmonized System Classifications.
The full text for H-phrases is displayed in section 16. All concentrations are in percent by weight unless otherwise noted.

Composition – All concentrations are in percent by weight unless otherwise indicated.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight %</th>
<th>CAS Number</th>
<th>EC Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Fiber</td>
<td>&gt; 60</td>
<td>7440-44-0</td>
<td>231-153-3</td>
</tr>
<tr>
<td>Classifications: Eye Irrit. 2; H319, STOT SE 3; H335</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poly(styrene-co-bisphenol-A epoxy divinyl ester)</td>
<td>&lt; 20</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Classifications: N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. First-Aid Measures

General Information

Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

Routes of Exposure

Eye Contact: Flush eyes with plenty of cool water for at least 15 minutes while holding the eyes open. Remove contact lenses if present and easy to do. If you experience redness, burning, blurred vision, or swelling, consult a physician.

Skin Contact: Wash affected area with soap and water. Do not apply greases or ointments. If rash or irritation occurs consult a physician.

Ingestion: Ingestion is unlikely. If swallowed, rinse mouth immediately. Consult a physician.

Inhalation: Remove patient to fresh air. Give oxygen or artificial respiration if needed. If patient continues to experience difficulty breathing, consult a physician.

Most Important Symptoms

Irritant effects. Rash. Symptoms include redness, itching, burning, tearing, swelling, and blurred vision. May cause shortness of breath or coughing.

5. Fire-Fighting Measures

Suitable Extinguishing Media: Extinguish with foam, carbon dioxide, dry powder, or water fog.

Additional Information: This material is not expected to burn in a fire. If this product is present in a fire, fight fire based on the packaging material, surrounding material, etc.

Hazards during Fire-Fighting: Fiber or dust may glow in an oxygen-containing atmosphere above 662°F (350°C). When glowing, and during combustion, CO/CO\textsubscript{2} is generated. Additionally, there is the potential release of degradation products such as NH\textsubscript{3}, HCN and monomeric acrylonitrile. Irritating and toxic gases/fumes may be released during a fire.

Fire-Fighting Procedures: Use standard fire-fighting procedures and consider the hazards of other involved materials. In case of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full
protective clothing must be worn. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

Other Information:
This product is not expected to burn. Do not incinerate carbon fibers since airborne fibers may cause electrical malfunctions.

6. Accidental Release Measures

Personal Precautions
Keep unnecessary personnel away. Wear the appropriate personal protective equipment. Avoid inhalation of dusts.

Clean-Up Methods
This product is not expected to present a serious spill hazard. Carbon fibers may be slippery (in sheet form or if chopped or milled) and can pose a fall risk. If spilled, collect (sweep, vacuum, etc.) spilled material and either reuse or dispose of properly. Avoid processes that result in the creation of dust. In the case of the creation or spill of process dust, avoid dry sweeping. Use water spraying/flushing or ventilated or HEPA filtered vacuum cleaning system. If not possible, gently moisten dust before collection with shovel or broom. Dispose of in closed containers.

Environmental Precautions
Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Handling
Packaged rolls or large cuts of carbon laminate may be heavy and awkward to lift. Use proper lifting and handling techniques to reduce chance of injury. Wear appropriate personal protective equipment. If cutting or processing, use work methods which minimize dust production. Do not breathe dust, and ensure adequate ventilation. Avoid contact with eyes, skin, and clothing. When in use, do not eat, drink, or smoke. Wash thoroughly after handling. Use good housekeeping and observe good industrial hygiene practices.

Storage
Store in a closed container away from incompatible materials (See section 10 of the SDS). Keep away from heat, spark, or flames. Keep in original container, and keep container tightly closed. Store in a cool, dry place out of direct sunlight.

8. Exposure Controls / Personal Protection

Personal Protective Equipment

<table>
<thead>
<tr>
<th>Protective Measure</th>
<th>Wear appropriate personal protective equipment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Protection</td>
<td>Wear goggles or safety glasses.</td>
</tr>
<tr>
<td>Hand Protection</td>
<td>Protective gloves recommended.</td>
</tr>
<tr>
<td>Skin and Body Protection</td>
<td>Wear long sleeve shirts/long pants and other clothing as required to minimize contact.</td>
</tr>
<tr>
<td>Respirator Protection</td>
<td>The use of a respirator is not required during normal use of this product. An approved respirator should be worn whenever workplace conditions warrant respirator use.</td>
</tr>
<tr>
<td>General Hygiene</td>
<td>Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.</td>
</tr>
</tbody>
</table>

Engineering Controls
When using indoors good general ventilation should be used. Ventilation rates should be matched to conditions. Provide eyewash station and emergency shower.

Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA (PEL)</th>
<th>ACGIH (TLV)</th>
<th>NIOSH Pocket Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Nuisance Dust</td>
<td>5 mg/m³ (respirable)</td>
<td>3 mg/m³ (respirable)</td>
<td>N/E</td>
</tr>
<tr>
<td></td>
<td>15 mg/m³ (total dust)</td>
<td>10 mg/m³ (total dust)</td>
<td></td>
</tr>
</tbody>
</table>

*Under certain conditions this substance may be a nuisance dust.

9. Physical and Chemical Properties

| Physical State:        | Solid               | Freezing/Melting Point: N/A |
| Form:                 | Solid Strips        | Boiling Point: N/A          |
| Color:                | Black               | Flash Point: N/A            |
| Odor:                 | None                | Evaporation Rate: N/A       |
| Odor Threshold:       | N/A                 | Specific Gravity: N/E       |
| pH:                   | N/A                 | VOC: N/A                    |
10. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>U/L Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Kow</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
</tbody>
</table>

11. Toxicological Information

**Likely Routes of Exposure**
- Ingestion: May cause discomfort if swallowed.
- Inhalation: May cause respiratory tract irritation if dust is inhaled.
- Skin contact: May cause skin irritation or sensitization.
- Eye contact: May cause eye irritation. Particles can cause corneal abrasion.
- Symptoms: Rash, redness, itching, burning, tearing, swelling, and blurred vision. May cause shortness of breath or coughing.

**Information on Toxicological Effects**

- **Acute Effects**
  - Toxicity: Not expected to be acutely toxic.
  - Skin corrosion/irritation: Prolonged contact may cause temporary irritation.
  - Eye damage/eye irritation: Direct eye contact may cause temporary irritation.
  - Respiratory sensitization: No data available.
  - Skin sensitization: May cause an allergic skin reaction.
  - Aspiration hazard: No data available.
  - Specific target organ toxicity
    - Single exposure: May cause respiratory irritation if dust is inhaled.

- **Chronic Effects**
  - Germ cell mutagenicity: No data available.
  - Carcinogenicity: This product is not considered to be a carcinogen by IARC, NTP, ACGIH, or OSHA.
  - Reproductive toxicity: No data available.
  - Specific target organ toxicity
    - Repeated exposure: No data available.

**Further Information**

Toxicological, ecotoxicological, physical, and chemical properties may not have been fully investigated. Hazard data above is estimated based on best available information. Some workers with certain pre-existing medical conditions such as: asthma, allergies, or impaired pulmonary and/or liver functions, or who may be particularly susceptible to this material, may be affected by exposure to this material or processing dust.

12. Ecological Information

**General Information**

Information given is based on data on the components and the ecotoxicology of similar products. The 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.

**Supporting Data**

- Persistence and degradability: No data available.
- Bioaccumulative potential: No data available for the product.
- Mobility in soil: No data available.
Other Adverse Effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption) are expected from this product.

13. Disposal Considerations

Waste Disposal of Substance: Do not allow material into sewers/water supplies. Do not contaminate ponds, waterways or ditches. Dispose of contents/container in accordance with local/regional/national/international regulations.

Container Disposal: Empty containers or liners may retain some product residues; follow label warnings even after container is emptied. Empty containers should be disposed of in accordance with local/regional/national/international regulations.

14. Transportation Information

DOT: CSS-CUCL Unidirectional Precured Carbon Laminate is not regulated for transport.

IMDG/IATA: CSS-CUCL Unidirectional Precured Carbon Laminate is not regulated for transport.

Additional Information

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not Applicable.

This information does not cover all specific regulatory or operational requirements of this product. The classifications for transportation may vary by container volume or different regional or national regulations.

15. Regulatory Information

United States

Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.


Supernfund Amendments and Reauthorization Act of 1986 (SARA)

<table>
<thead>
<tr>
<th>Hazard Categories:</th>
<th>Immediate</th>
<th>Delayed</th>
<th>Fire</th>
<th>Pressure</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

SARA 302 Extremely hazardous substance: No
SARA 311/312 Hazardous chemical: Yes
SARA 313 (TRI reporting): Not regulated.

US. California Proposition 65: WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects, or reproductive harm.

Carcinogen / Reproductive Toxin / Mutagen Information

<table>
<thead>
<tr>
<th>Component (*) can be absorbed through the skin</th>
<th>% In Blend (approx.)</th>
<th>IARC Monographs</th>
<th>NTP</th>
<th>ACGIH</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl isobutyl ketone (CAS 108-10-1)</td>
<td>Trace</td>
<td>2B</td>
<td>---</td>
<td>---</td>
<td>CA65  (Carcinogenic, Developmental)</td>
</tr>
</tbody>
</table>

IARC: 1 – Carcinogenic 2 – Possibly carcinogenic 3 – Not classifiable as to carcinogenicity 4 – Probably not carcinogenic
NTP: Known to be human carcinogen or Reasonably anticipated to be a human carcinogen
ACGIH – A1 – Confirmed carcinogen A2 – Suspected carcinogen A3 – Animal carcinogen A4 – Not classified A5 – Not suspected
CA65 – California Prop 65

Canada

This product has been classified according to the hazard criteria of the HPR and the SDS contains all of the information required by the HPR.
The product is classified and labeled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

This product is not subject to or not applicable for any of the following International Regulations: Stockholm Convention, Rotterdam Convention, Kyoto Protocol, Montreal Protocol, Basel Convention.

International Inventories

<table>
<thead>
<tr>
<th>Country</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>All components of this product are included on the Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).</td>
</tr>
<tr>
<td>Europe</td>
<td>All components of this product are included on the European Inventory of Existing Commercial Chemical Substances (EINECS) or are exempt from listing.</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>All components of this product are listed on the Toxic Substances Control Act (TSCA) Inventory or are not required to be listed.</td>
</tr>
</tbody>
</table>

16. Other Information

Date Prepared or Revised: August 2016
Supersedes: January 2016

Contact Simpson Strong-Tie Environmental Health and Safety at EHS@strongtie.com.

Additional Classifications

NFPA Ratings

HMIS Rating

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>PHYSICAL</th>
<th>FLAMMABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>B</td>
</tr>
</tbody>
</table>

Abbreviations

ACGIH: American Conference of Governmental Industrial Hygienists
CAS No.: Chemical Abstract Service Registry Number
CERCLA: Comprehensive Environmental Response, Compensation and Liability Act (U.S. EPA)
HPR: Hazardous Product Regulations (Canada)
DOT: Department of Transportation (U.S.)
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
HEPA: High-Efficiency Particulate Air
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods code
NIOSH: National Institute of Occupational Safety and Health (U.S.)
NFPA: National Fire Protection Association (US)
NTP: National Toxicology Program (US)
OSHA: Occupational Safety and Health Administration (U.S.)
PEL: Permissible Exposure Limit
SARA: Superfund Amendments and Reauthorization Act (U.S. EPA)
STEL: Short Term Exposure Limit (15 minute Time Weighted Average)
STOT: Specific Target Organ Toxicity (GHS Classification)
TLV: Threshold Limit Value
TSCA: Toxic Substances Control Act (U.S.)
CSS-CUCL Precured Carbon Laminate

SAFETY DATA SHEET

TWA: Time Weighted Average (exposure for 8-hour workday)
VOC: Volatile Organic Compounds
WHMIS: Canadian Workplace Hazardous Materials Information System

Full Text of H-Phrases Under Section 3
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.

Disclaimer

This Safety Data Sheet (SDS) is prepared by Simpson Strong-Tie Co. in compliance with the requirements of OSHA 29 CFR Part 1910.1200. The information it contains is offered in good faith as accurate as of the date of this SDS. This SDS is provided solely for the purpose of conveying health, safety, and environmental information. No warranty, expressed or implied, is given. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.

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