Material Safety Data Sheet

Section 1: PRODUCT AND COMPANY IDENTIFICATION

MSDS Identification Name: HexWeb® HRH®-10, HRH®-78, CFC™-20 Non-Metallic Honeycomb
MSDS Number: 439-2673-0HRH-1078-14  Date: April 1, 2009  Page: 1 of 7
Supersedes MSDS: 439-2673-0HRH-1078-13
Manufacturer: Hexcel®
11711 Dublin Boulevard
Dublin, CA 94568-2832
Emergency Telephone Number: 800-433-5072 (24-Hour) Hexcel®
Information Telephone Number: 925-551-4900 (Normal Business Hours-PT)

Product Identification Number: HexWeb® HRH®-10, HRH®-78 and CFC™-20
Aramid Core/Standard Hexagonal Core, Cross-Core®, Flex-Core® and OX-Core®
(Over-Expanded) Core

Chemical Family: Phenolic Resin/Aramid (Nomex®) Honeycomb Core

Section 2: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS® Number</th>
<th>% by Weight</th>
<th>OSHA (PEL)</th>
<th>ACGIH® (TLV®)</th>
</tr>
</thead>
</table>
| This product is not classified as a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Section 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
Appearance and Odor:
Amber to brown-colored, resin-coated paper made into honeycomb core with no distinctive odor.

Statements of Hazard:
Warning! Dust generated from machining, grinding or sanding the product may be combustible and could result in fire and/or explosion should the necessary dust concentration in air and ignition source be present.

Warning! Dust or particulate from the product or from machining, grinding or sawing the product may cause irritation to the eyes, skin and respiratory tract.

Handling the product may cause cuts and abrasions.

Exposure of the product to elevated temperatures could release undetermined amounts of phenol and formaldehyde, a regulated carcinogen (See Section 16: Other Information-Special Precautions).
Section 3: HAZARDS IDENTIFICATION (Continued)

EMERGENCY OVERVIEW (continued):

Primary Routes of Exposure:
- Eye--Yes
- Skin--Yes
- Inhalation--Yes
- Ingestion--No

HMIS® Rating:
- Health--1
- Flammability--0
- Reactivity--0
- Special--None

Potential Health Effects:

Eye: 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.

Skin: Dust or particulate from the product or from machining, grinding or sawing the product may cause mechanical irritation.

Inhalation: Vapor or fumes generated from exposing the product to elevated temperatures may cause irritation to the respiratory tract and possible exposure to a known carcinogen. Dust or particulate from the product or from machining, grinding or sawing the product may cause irritation to the respiratory tract.

Ingestion: The effects of ingestion are unknown. Mechanical irritation may occur.

Medical Conditions Aggravated by Exposure: Preexisting eye, skin or respiratory disorders may be aggravated by exposure to the vapor or fumes generated when the product is exposed to elevated temperatures or by exposure to the dust or particulate from machining, grinding or sawing the product.

Carcinogenic Information: None of the components present in the product at concentrations equal to or greater than 0.1% are listed or regulated by IARC, NTP, OSHA or ACGIH® as a carcinogen (See Section 16: Other Information-Special Precautions).

Other:

<table>
<thead>
<tr>
<th></th>
<th>OSHA (PEL)</th>
<th>ACGIH® (TLV®)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure limits for product dust as [Particulate Not Otherwise Regulated (PNOR) by OSHA or Specified (PNOS) by ACGIH®]:</td>
<td>15 mg/m³ (Total)</td>
<td>10 mg/m³ (Inhalable)</td>
</tr>
<tr>
<td></td>
<td>5 mg/m³ (Respirable)</td>
<td>3 mg/m³ (Respirable)</td>
</tr>
</tbody>
</table>

Section 4: FIRST AID MEASURES

Eye: In case of contact with the product or the vapor, fumes, dust or particulate from the product, immediately flush with large amounts of water for at least 15 minutes, keeping the eyelids open. Get medical attention immediately.

Skin: In case of contact with dust or particulate from the product, immediately wash skin with soap and plenty of water. If irritation develops, get medical attention immediately. Use normal medical treatment for cuts or abrasions.

Inhalation: If excessive inhalation of vapor or fumes from the product occurs, remove to fresh air. If dust or particulate from the product are inhaled in a large quantity, remove to fresh air. Get medical attention immediately.

Ingestion: In case of ingestion, mechanical irritation may occur. Get medical attention, if necessary.
**Section 5: FIRE FIGHTING MEASURES (Continued)**

**Flash Point/Method of Determination:** Not determined

**Means of Extinction:** Use water-spray, dry chemical or CO₂ to extinguish fires.

**Special Fire Hazards:** Avoid exposure through use of a self-contained, positive-pressure breathing apparatus. Dust generated from machining, grinding or sanding the product may be combustible and could result in fire and/or explosion should the necessary dust concentration in air and ignition source be present.

**Section 6: ACCIDENTAL RELEASE MEASURES**

**Procedures in case of Accidental Release or Leakage:** No special precautions required.

**Section 7: HANDLING AND STORAGE**

**Precautions to be taken in Handling and Storage:** No special temperature precautions required. Maintained sealed against contamination from dirt or moisture.

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Eye/Face Protection:** Usually not required. Avoid eye and skin contact. Wear safety glasses with side shields when machining, grinding or sawing the product.

**Skin Protection:** Use gloves, as necessary, to protect from cuts or abrasions while handling the product. Wear protective clothing, as necessary, to protect from the dust or particulate from the product or generated when machining, grinding or sawing the product.

**Respiratory Protection:** Usually not required. If vapor or fumes are being generated during use of the product, use a NIOSH approved vapor respirator. If dust or particulate are being generated during use of the product or when machining, grinding or sawing the product, use a NIOSH approved dust respirator.

**Ventilation:** Use local exhaust sufficient to control the vapor, fumes, dust or particulate generated during use of the product or when machining, grinding or sawing the product. If an exhaust ventilation is not available or is inadequate, use a NIOSH approved respirator, as appropriate.

**General Hygiene Recommendations:** Good personal hygiene practices should be followed at all times. Before eating, drinking, smoking or using toilet facilities, wash face and hands thoroughly with soap and water. Use vacuum equipment to remove the product dust or particulate from clothing and work areas. Compressed air is not recommended.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance and Odor**...................... Amber to brown-colored, resin-coated paper made into honeycomb core with no distinctive odor.

**Boiling Point (°F/°C)**.......................Not determined
Section 9: PHYSICAL AND CHEMICAL PROPERTIES (Continued)

- Melting Point (°F/°C): Not determined
- Density (lbs./ft³)/(Water=62.3): 1-15
- pH of Undiluted Product: Not determined
- Vapor Pressure (mm Hg.): Not determined
- Vapor Density (Air=1): Not determined
- Viscosity: Not determined
- Volatile [Percent (%) by Weight]: Up to 5% possible from absorbed moisture
- Percent (%) VOC: Same as % Volatile Content as absorbed moisture
- Solubility in Water: Not determined

Section 10: STABILITY AND REACTIVITY

- Stability: Stable under proper handling and storage conditions.
- Incompatible Materials: None determined
- Products evolved from Heat of Combustion or Decomposition: The products of combustion and decomposition depend on other materials present in the fire and the actual conditions of the fire. Component information says that burning should produce carbon and nitrogen oxides, phenol, formaldehyde, water, small amounts of hydrogen cyanide and other unidentified gases and vapors that may be toxic. Avoid inhalation.
- Hazardous Polymerization: Should not occur under proper conditions of use.

Section 11: TOXICOLOGICAL INFORMATION

- Component Toxicity Data:
  - Median Lethal Dose (Species):
    - Oral (LD₅₀): Not determined
    - Inhalation (LC₅₀): Not determined
    - Dermal (LD₅₀): Not determined
  - Irritation Index, Estimation of Irritation (Species):
    - Skin: Not determined
    - Eyes: Not determined
    - Inhalation: Not determined

Section 12: ECOLOGICAL INFORMATION

- Total Product Data:
  No ecological data has been determined on the total product.
- Component Data:
  No ecological data has been determined on the cured phenolic resin or the cured node adhesive.
Section 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Methods:** Material for disposal should be placed in appropriate 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.

Section 14: TRANSPORT INFORMATION

**DOT:**
Proper Shipping Name....... Not regulated
Hazard Class...................... Not regulated
Identification Number....... Not regulated
Packing Group................... Not regulated
Label Required................. None

Section 15: REGULATORY INFORMATION

**SARA Title III:**
Section 302/304 Extremely Hazardous Substance:
None

Section 311 Hazardous Categorization:
None

Section 313 Toxic Chemicals:
None

**CERCLA Section 102(a) Hazardous Substance:**
None

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

**WHMIS (Canada):**
Classification:
None

*This product has been classified in accordance with hazard criteria of the "Controlled Products Regulations" and this MSDS contains all the information required by the "Controlled Products Regulations."*

Ingredient disclosure list:
None
Section 15: REGULATORY INFORMATION (Continued)

U.S., EPA and TSCA Information: This product is an article as defined by TSCA and is not required to be listed in the TSCA Inventory.

Ozone Depletion Information: This product does not contain or is not manufactured with ozone depleting substances as identified in Title VI, Clean Air Act "Stratospheric Ozone Protection" and the regulations set forth in 40 CFR, Part 82.

Section 16: OTHER INFORMATION

Special Precautions: During process operations at elevated temperatures above the cure temperature performed at time of manufacture (approximately 350°F/177°C), there could be undetermined amounts of phenol and formaldehyde released. Formaldehyde is an OSHA regulated, an IARC listed, Group 2A, probable human carcinogen, a NTP listed, Class 2B, reasonably anticipated carcinogen, a NIOSH listed carcinogen and a ACGIH®, Class A2, suspected human carcinogen.

<table>
<thead>
<tr>
<th>CAS® Number</th>
<th>OSHA (PEL)</th>
<th>ACGIH® (TLV®)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>0.75 PPM (TWA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 PPM (STEL)</td>
</tr>
<tr>
<td>Phenol</td>
<td>108-95-2</td>
<td>5 PPM (TWA) (Skin)</td>
</tr>
</tbody>
</table>

Explanation and Disclaimer: Wherever such words or phrases as "hazardous," "toxic," "carcinogen," etc. appear herein, they are used as defined or described under state employee right-to-know laws, Federal OSHA laws or the direct sources for these laws such as the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), etc. The use of such words or phrases should not be taken to mean that we deem or imply any substance or exposure to be toxic, hazardous or otherwise harmful. Any exposure can only be understood within the entire context of its occurrence, which includes such factors as the substance's characteristics as defined in the MSDS, amount and duration of exposures, other chemicals present and preexisting individual differences in response to the exposure.

The data provided in this MSDS is based on the information received from our raw material suppliers and other sources believed to be reliable. We are supplying you this data solely in compliance with the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200 and other Federal and state laws as described in Section 15: Regulatory Information.

The information contained in this MSDS is proprietary and confidential to Hexcel Corporation. This MSDS and the information in it are not to be used for purposes other than compliance with the Federal OSHA Hazard Communication Standard. If you have received this MSDS from any other source than Hexcel Corporation or its authorized agent, the information contained in it may have been modified from the original document and it may not be the most current revision.
Explanation and Disclaimer (continued):
Liability, if any, for use of this product is limited to the terms contained in our sale terms and conditions. We do not in any way warrant (expressed or implied, including any implied warranty for merchantability or fitness for a particular purpose) the data contained or the product described in this MSDS. Additionally, we do not warrant that the product will not infringe any patent or other proprietary or property rights of others.

Prepared by: Darryl Ong,
Hexcel Corporate Safety and Health,
Senior Product Information Specialist

Revision History:
04/03/09 added warning for combustible dust phrase in section 3 and 5.
03/20/07 review and update per Canada (every 3yr) requirement.