PRODUCT SAFETY INFORMATION SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

TRADE NAME: COOLSPAN® Thermally & Electrically Conductive Adhesive (TECA)

HMIS RATING: H 1 F 1 R 0

USE OF ARTICLE Used in Heat Transfer

DATE ISSUED: September 11, 2015

COMPANY/UNDERTAKING IDENTIFICATION:

Rogers Corporation
One Technology Drive
Rogers, CT  06263-0188
Phone: 001-860-774-9605
Fax: 001-860-779-5778
Email: msdsinfo@rogerscorporation.com

2. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE MATERIAL: NE

LABELING REQUIREMENTS: NE

EFFECTS OF OVEREXPOSURE: None are expected with normal handling. Cutting and other finishing operations may create silver dust. Ventilation and personnel protection should be similar to all operations generating nuisance dust.

INHALATION: Dust may cause respiratory irritation. Remove to fresh air and seek medical attention if necessary.

EYE CONTACT: Dust may cause irritation. Flush eyes with water and seek medical attention if necessary.

SKIN CONTACT: Dust may cause irritation. Wash thoroughly with soap and water.

INGESTION: If ingested, seek medical attention. May cause indigestion.

CHRONIC: None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is produced as an “article” as defined in 20 CFR 1910.1200 and REGULATION (EC) N° 1907/2006 is therefore exempt from the Hazard Communication Standard and REACH. Since this material does not release and will not result in exposure to a hazardous chemical under normal conditions of use, no Safety Data Sheet is required.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>EINECS /ELINCS</th>
<th>%</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>China OEL</th>
<th>EU Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver</td>
<td>7440-22-4</td>
<td>231-131-3</td>
<td>&gt;60%</td>
<td>0.01 mg/m³</td>
<td>0.1 mg/m³</td>
<td>NE</td>
<td>Not Classified According to 67/548/EC</td>
</tr>
<tr>
<td>Proprietary Epoxy Resin</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>&lt;40%</td>
<td>NA</td>
<td>NA</td>
<td>NE</td>
<td>Not Classified According to 67/548/EC</td>
</tr>
</tbody>
</table>
4. **FIRST-AID MEASURES**

**INHALATION:** Remove to fresh air. Obtain medical attention if symptoms persist.

**EYE CONTACT:** Flush eyes with large amounts of water for 15 to 20 minutes. Obtain medical attention if symptoms persist.

**SKIN CONTACT:** Immediately take off all contaminated clothing and flush area with water for 15 to 20 minutes. Obtain medical attention if symptoms persist.

**INGESTION:** Do not induce vomiting. Rinse mouth with water. Obtain medical attention.

5. **FIRE-FIGHTING MEASURES**

**FLASH POINT:** NE °C (°F)

**AUTOIGNITION TEMPERATURE:** NE °C (°F)

**Flammable Limits:** LEL NA UEL NA

**EXTINGUISHING MEDIA:**
- X Water Spray
- X Foam
- X Other –
- CO₂
- Dry Chemical

**SPECIAL FIRE FIGHTING PROCEDURES:** Decomposition in a fire may produce toxic fumes. Firefighters should be equipped with self-contained breathing apparatus and turnout gear.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Low, when exposed to heat or flames. Can react with oxidizers produced in fire and carbon monoxide

6. **ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS:** Wear suitable protective equipment. Do not breathe dust. Avoid contact with skin and eyes.

**ENVIRONMENTAL PRECAUTIONS:** Prevent from entering sewer system, surface water or soil.

**CLEANING METHODS:** Sweep or shovel into appropriate container for disposal. Avoid creation of nuisance dust.

7. **HANDLING AND STORAGE**

**HANDLING:** Wear suitable protective equipment (refer to Section 8). Wash hands with soap and water after handling.

**STORAGE:** Keep in a cool, well-ventilated area.

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

**RESPIRATORY PROTECTION:** None needed under normal conditions. If material is heated and odors are noticeable and/or irritating a respirator meeting NIOSH requirements should be used. A qualified individual should evaluate each situation.

**VENTILATION**
- **LOCAL:** Recommended for all industrial operations.
- **GENERAL:** Recommended for all industrial operations.

**PERSONAL PROTECTION**
- **HAND:** Gloves to avoid skin contact.
- **EYE:** Safety glasses with side-shields are recommended in all industrial operations.
- **SKIN:** Apron, boots, and gloves as necessary to prevent skin contact.
- **OTHER:** Safety shower/eyewash in the area.
9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Silver Roll or Sheet
ODOR: Characteristic
PHYSICAL STATE: Solid
BOILING POINT: NA °C (°F)
MELTING POINT: NE °C (°F)
FREEZING POINT: NA °C (°F)
FLASH POINT: NE °C (°F)
WATER SOLUBILITY: In-Soluble
VAPOR DENSITY: NA
VAPOR PRESSURE: NA
SPECIFIC GRAVITY: 4.63 g/cm³
PARTITION COEFFICIENT: NA
EVAPORATION RATE: NA
RELATIVE DENSITY: NA
VISCOSITY: NA
AUTO-IGNITION TEMPERATURE: NA °C (°F)
DECOMPOSITION TEMPERATURE: NA °C (°F)
PH: NA
FLAMMABILITY: NA

10. STABILITY AND REACTIVITY

STABLE X UNSTABLE ___
CONDITIONS TO AVOID: None known.
MATERIALS TO AVOID: None known.
HAZARDOUS POLYMERIZATION: May Occur X Does Not Occur
HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO₂, Oxides of nitrogen, and traces of incompletely burned carbon compounds.

11. TOXICOLOGICAL INFORMATION

CARCINOGENIC STATUS: None known.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: Not expected to be acutely toxic to aquatic organisms.

13. DISPOSAL CONSIDERATION

PHYSICAL/CHEMICAL PROPERTIES AFFECTING DISPOSAL: None
ENVIRONMENTAL TOXICITY DATA: NA
WASTE DISPOSAL METHOD: Dispose of in accordance with applicable federal, state, provincial, and local laws and regulations.

14. TRANSPORT INFORMATION

UN NUMBER: Not Regulated
UN PROPER SHIPPING NAME: Not Regulated
HAZARD CLASS (ES): Not Regulated
PACKING GROUP: Not Regulated
ENVIRONMENTAL HAZARDS: NE
15. **REGULATORY INFORMATION**

**INTERNATIONAL REGULATIONS:**
- **Canadian (DSL/NDSL):** Listed
- **Australian (ACIS):** NE
- **Korea (KECI):** NE
- **Japan (ENCS, MITI):** NE
- **China (SEPA):** Article – exempt.
- **EU Directive 2011/65/EC (RoHS):** Does not contain any intentionally added substances mentioned by the RoHS directive.

**European:**
- **Symbol:** Not classified according to directive 1999/45/EC & 2001/60/EC (dangerous preparations).
- **R-Phase(s):** NA
- **S-Phase(s):** NA
- **TSCA (Toxic Substances Control Act):** All materials are listed or exempt from TSCA listing.
- **CERCLA (Comprehensive Emergency Response, Compensation, and Liability Act):** Silver CAS# 7440-22-4 RQ 1000 lbs.
- **SARA TITLE III (Superfund Amendments and Reauthorization Act):** NA
- **311/312 HAZARD CATEGORIES:** None

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

<table>
<thead>
<tr>
<th>CAS #</th>
<th>CHEMICAL NAME</th>
<th>PERCENT BY WEIGHT</th>
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<td>7440-22-4</td>
<td>Silver</td>
<td>&gt;60%</td>
</tr>
</tbody>
</table>

16. **OTHER INFORMATION**

**FILE:** 99339-COOLSPAN TECA PSIS-09062013.doc

**PREPARED BY:** Michal Werbecki

**REVIEWS BY:** Frances Walsh

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