1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: 48991A
Product Number (Optional): 48991A
Use of Product: Thermal interface material
Supplier: Rogers Corporation
1100 Governor Lea Road
Bear, DE 19701
Phone: 001-302-834-2100
Fax: 001-302-834-4021
Email: msdsinfo@rogerscorporation.com

Emergency Telephone Number: 800-424-9300 (U.S. & Canada) Chemtrec
001-703-527-3887 (International – Call Collect)

2. HAZARDS IDENTIFICATION

Emergency Overview:
OSHA Hazard: Not Applicable
Target Organs: Not Applicable
GHS Classification: Not Applicable
GHS Label Elements: Not Applicable
Pictogram: Not Applicable
Signal Word: Not Applicable
Hazard Statements: Not Applicable
Including Precautionary Statements: Not Applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2, 4-dichlorobenzoyl peroxide</td>
<td>133-14-2</td>
<td>0.1-1.0</td>
</tr>
<tr>
<td>Phenylheptamethylcyclotetrasiloxane</td>
<td>10448-09-6</td>
<td>0.1-1.0</td>
</tr>
<tr>
<td>2,6-cis-diphenylhexamethylcyclotetrasiloxane</td>
<td>33204-76-1</td>
<td>&lt;0.1</td>
</tr>
</tbody>
</table>


4. FIRST-AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If Inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In Case of Eye Contact: Flush eyes with water for at least 15 minutes and get medical attention if irritation persists.
If Swallowed: Get medical attention.

Most important symptoms and effects, both acute and delayed: No data available.

Indication of any immediate medical attention and special treatment needed: No data available.

5. FIRE-FIGHTING MEASURES

Conditions of Flammability: No data available.

Suitable Extinguishing Media: Carbon dioxide, dry chemical, foam, alcohol foam and water.

Special Protective Equipment for Fire Fighters: Firefighter must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

Hazardous Combustion Products: Carbon monoxide, formaldehyde, silicon dioxide, metal oxide, and incomplete burned carbon products.

Further Information: Do not allow fire water to penetrate into surface or ground water. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment. Avoid breathing vapors mists or gas. Ensure adequate ventilation. For personal protection see Section 8.

Environmental Precautions: This material is not biodegradable.

Methods and Materials for Containment and Cleaning Up: Wipe or scrape up material and place in container for disposal. For disposal see Section 13.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes. Use personal protective equipment recommended in Section 8. Provide adequate ventilation.

Conditions for Safe Storage: Store material in original packaging at 45±5°F (7±3°C) until ready to use. Store away from strong acids, strong bases and strong oxidizers, sulfur and amines.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Appropriate Engineering Controls: Eyewash stations, showers.

Personal Protective Equipment:
Respiratory Protection: Wear a NIOSH approved air-purifying respirator if exposure levels may be exceeded.

Hand Protection: Wear suitable disposable gloves.

Eye Protection: Safety glasses with side-shields.

Skin and Body Protection: Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene Measures: Wash and dry hands.
9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:**
- Form: Light blue silicone gum supported by fiberglass.
- Color: Light blue

**Safety Data:**
- pH: No data available.
- Melting/Freezing Point: No data available.
- Boiling Point: No data available.
- Flash Point: No data available.
- Ignition Temperature: No data available.
- Auto-Ignition Temperature: No data available.
- Lower Explosion Limit: No data available.
- Upper Explosion Limit: No data available.
- Vapor Pressure: No data available.
- Specific Gravity: 1.45 (rubber only)
- Water Solubility: Not water soluble.
- Partition Coefficient: No data available.
- Relative Vapor Density: No data available.
- Odor: Characteristic of silicone.
- Odor Threshold: No data available.
- Evaporation Rate: No data available.

10. STABILITY AND REACTIVITY

**Reactivity:** No data available.
**Chemical Stability:** Stable under recommended storage conditions.
**Possibility of Hazardous Reactions:** No data available.

**Conditions to Avoid:** Avoid exposure to excess heat.
**Materials to Avoid:** Strong acids, strong bases, strong oxidizers, sulfur and amines.
**Hazardous Decomposition Products:** Carbon monoxide, silicon dioxide, formaldehyde, metal oxides, and incomplete burned carbon compounds.

11. TOXICOLOGICAL INFORMATION

**Acute Toxicity:** No data available.
**Carcinogenicity:** No data available.
**Reproductive Toxicity:** No data available.
**Teratogenicity:** No data available.
**Specific Target Organ Toxicity – Single Exposure (GHS):** No data available.
**Specific Target Organ Toxicity – Repeated Exposure (GHS):** No data available.
**Aspiration Hazard:** No data available.

**Additional Information:** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Vomiting, nausea, diarrhea possible

12. ECOLOGICAL INFORMATION:

**Toxicity:** No data available.
**Persistence and Degradability:** No data available.
**Bioaccumulative Potential:** No data available.
**Mobility in Soil:** No data available.
**PBT and vPvB Assessment:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
**Other Adverse Effects:** No data available.
13. DISPOSAL CONSIDERATIONS

Product: Consult federal, state and local regulations to determine appropriate disposal options.
Contaminated Packaging: Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (U.S.) Classification: Not classified as hazardous for transportation purposes.
IMDG Classification: Not classified as hazardous for transportation purposes.
IATA Classification: Not classified as hazardous for transportation purposes.

15. REGULATORY INFORMATION

TSCA United States: Yes
EINECS: EU Yes
DSL: Canada Yes
KCL: Korea Yes
PICCS: Philippines Yes
AICS: Australia Yes
ENCS: Japan Yes

EU REACH: Product is considered compliant with Regulation EC 1907/2006 or Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) legislation.

SARA Title III Chemical Listings
Section 302: Extremely Hazardous Substance: None Known
Section 304: CERCLA Hazardous Substances: None Known
Section 311 / 312 Hazard Class:
Acute: No
Chronic: No
Fire: No
Pressure: No
Reactive: Yes

Section 313: Toxic Chemicals:
None known

16. OTHER INFORMATION

NA = Not Applicable
NE = Not Established
NC = Not Classified
FILE: 99449-48991A GHS SDS-02282017
PREPARED BY: Jianhua Zou
REVIEWED BY: Greg Sullivan
DATE: 2-28-2017

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