1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer Name: Momentive performance material
260 Hudson River Rd
Waterford NY 12188

Revised: 06/13/2011
Prepared by PRODUCT STEWARDSHIP COMPLIANCE AND STANDARDS
CHEMTREC 1-800-424-9300

Chemical Family/Use: Silicone Elastomer
Formula: Mixture of polydimethylsiloxane terminated with vinyl and hydrogen groups.

HMIS
FLAMMABILITY Reactivity: 0 Health: 1
Reactivity: 0
Health: 1

NFPA
Flammability: 1 Reactivity: 0 Health: 1

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
CAUTION! May cause skin, eye, and respiratory tract irritation. Product generates flammable gas on contact with acids, bases or oxidizing substances.

Form: Liquid Color: Colorless Odor: Faint

POTENTIAL HEALTH EFFECTS

INGESTION
Not an anticipated route of exposure.

CHRONIC EFFECTS / CARCINOGENICITY
This product or one of its ingredients present at 0.1% or more is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA.

ROUTES OF EXPOSURE
Dermal; Eye

3. COMPOSITION/INFORMATION ON INGREDIENTS
RTV615 440
Crosslinking Agent

PRODUCT COMPOSITION | CAS-No. | WGT. %
--- | --- | ---
A. HAZARDOUS

B. NON-HAZARDOUS
polyvinylsiloxane | 68083-19-2 | 30 - 60 %
METHYLHYDROGENPOLYSILOXANE | 68988-57-8 | 30 - 60 %

4. FIRST AID MEASURES

INGESTION
If swallowed, do NOT induce vomiting. Give a glass of water. Do not give victim anything to drink if he is unconscious. Get medical attention.

SKIN
Wash with soap and water.

INHALATION
If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention.

EYES.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

5. FIRE-FIGHTING MEASURES

FLASH POINT: > 121 °C; 250 °F
IGNITION TEMPERATURE: Not applicable
FLAMMABLE LIMITS LEL: No data available.
FLAMMABLE LIMITS UEL: No data available.

SENSITIVITY TO MECHANICAL IMPACT: No

SENSITIVITY TO STATIC DISCHARGE
Sensitivity to static discharge is not expected.

EXTINGUISHING MEDIA
All standard extinguishing agents are suitable.
SPECIAL FIRE FIGHTING PROCEDURES
Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

FURTHER INFORMATION
Use standard firefighting procedures and consider the hazards of other involved materials.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED
Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
Keep container closed. Avoid contact with eyes, skin, and clothing. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSOAL PROTECTION

ENGINEERING CONTROLS
Eye wash facilities and emergency shower must be available when handling this product.

RESPIRATORY PROTECTION
If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

EYE AND FACE PROTECTION
Safety glasses with side shields

OTHER PROTECTIVE EQUIPMENT
Wear suitable protective clothing and eye/face protection.

Exposure Guidelines
RTV615 440
Crosslinking Agent

<table>
<thead>
<tr>
<th>Component</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absence of values indicates none found</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PEL - OSHA Permissible Exposure Limit; TLV - ACGIH Threshold Limit Value; TWA - Time Weighted Average; INTL REL - Internal Recommended Exposure Limit


9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOILING POINT (°C)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>VAPOR PRESSURE</td>
<td>Negligible</td>
</tr>
<tr>
<td>VAPOR DENSITY (AIR=1)</td>
<td>1.0</td>
</tr>
<tr>
<td>FREEZING POINT</td>
<td>Not applicable</td>
</tr>
<tr>
<td>PHYSICAL STATE</td>
<td>Liquid</td>
</tr>
<tr>
<td>ODOR</td>
<td>Faint</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>EVAPORATION RATE (BUTYL ACETATE=1)</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY</td>
<td>0.99</td>
</tr>
<tr>
<td>DENSITY</td>
<td>ca. 0.99 g/cm³</td>
</tr>
<tr>
<td>ACID / ALKALINITY (MEQ/G)</td>
<td>No data available.</td>
</tr>
<tr>
<td>pH</td>
<td>No data available.</td>
</tr>
<tr>
<td>SOLUBILITY IN WATER (20 C)</td>
<td>Insoluble</td>
</tr>
<tr>
<td>SOLUBILITY IN ORGANIC SOLVENT (STATE SOLVENT)</td>
<td>Soluble in toluene</td>
</tr>
<tr>
<td>VOC EXCL. H2O &amp; EXEMPTS (G/L)</td>
<td>137 g/l</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

STABILITY
Stable

HAZARDOUS POLYMERIZATION.
Hazardous polymerisation does not occur.

HAZARDOUS THERMAL DECOMPOSITION / COMBUSTION PRODUCTS
Carbon dioxide; Silicon dioxide.; Formaldehyde.; This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 degrees Fahrenheit (150°C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard. A MSDS for formaldehyde is available from Momentive.

CONDITIONS TO AVOID
Product generates flammable gas on contact with acids, bases or oxidizing substances.
11. TOXICOLOGICAL INFORMATION

ACUTE ORAL
Remarks: No data available.

ACUTE DERMAL
Remarks: No data available.

ACUTE INHALATION
Remarks: No data available.

OTHER
Octamethylcyclotetrasiloxane
Ingestion: Rodents given large doses via oral gavage of octamethylcyclotetrasiloxane (1600 mg/kg day, 14 days) developed increased liver weights relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appear normal) as well as hypertrophy (increased cell size).

Inhalation: In inhalation studies, laboratory rodents exposed to octamethylcyclotetrasiloxane (300 ppm five days week, 90 days) developed increased liver weights in female animals relative to unexposed control animals. When the exposure was stopped, liverweights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. Inhalations studies utilizing laboratory rabbits and guinea pigs showed no effects on liver weights. Inhalation exposures typical of industrial usage (5-10 ppm) showed no toxic effects in rodents.

Range finding reproductive studies were conducted (whole body inhalation, 70 days prior to mating, through mating, gestation, and lactation) with octamethylcyclotetrasiloxane (D4). Rats were exposed to 70 and 700 ppm. In the 700 ppm group, there was a statistically significant reduction in mean litter size and in implantation sites. No D4 related clinical signs were observed in the pups and no exposure related pathological findings were found.

Interim results from a two generation reproductive study in rats exposed to 500 and 700 ppm D4 (whole body inhalation, 70 days prior to mating, through mating, gestation, and lactation) resulted in a statistically significant decrease in live mean litter size as well as extended periods of off-spring delivery (dystocia). These results were not observed at the 70 and 300ppm dosing levels.

Preliminary results from an ongoing 24-month combined chronic/oncogenicity study in rats exposed to 10, 30, 150, or 700 ppm D4 showed test-article related effects in the kidney (male and female) and uterus of rats exposed for 12 to 24 months. These effects include increased kidney weight and severity of chronic nephropathy, increased uterine weight, increased incidence of endometrial cell hyperplasia, and an increased incidence of endometrial adenomas. All of these effects are limited to the 700 ppm exposure group.

These results have been shown to be rat-specific. Further studies are ongoing.
In developmental toxicity studies, rats and rabbits were exposed to octamethylcyclotetrasiloxane at concentrations up to 700 ppm and 500 ppm respectively. No teratogenic effects (birth defects) were observed in either study.

Exposure to toluene during pregnancy has demonstrated limited evidence of developmental toxicity in laboratory animals. The effects seen included decreased fetal body weight and increased skeletal variations in both inhalation and oral studies.

SENSITIZATION
No data available.

SKIN IRRITATION
No data available.

EYE IRRITATION
No data available.

MUTAGENICITY
No data available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY
No data available.

DISTRIBUTION
No data available.

CHEMICAL FATE
No data available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS
Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION
Further Information: This product is not regulated by the DOT for transport within the United States. This product is not legally restricted for air shipments according to the national and international regulations on the transport of dangerous goods. However, as a result of the potential formation of hydrogen gas, Momentive Performance Materials does not transport this material by air (IATA-C, IATA-P).

15. REGULATORY INFORMATION

Inventories

- Australia Inventory of Chemical Substances (AICS) y (positive listing)
- EU list of existing chemical substances y (positive listing)
- Japan Inventory of Existing & New Chemical Substances (ENCS) y (positive listing)
- China Inventory of Existing Chemical Substances y (positive listing)
- Korea Existing Chemicals Inventory (KECI) y (positive listing)
- Canada DSL Inventory y (positive listing)
- Canada NDSL Inventory n (Negative listing)
- Philippines Inventory of Chemicals and Chemical Substances (PICCS) y (positive listing)
- TSCA list y (positive listing) On TSCA Inventory

For inventories that are marked as quantity restricted or special cases, please contact Momentive.

US Regulatory Information

SARA (313) CHEMICALS

CALIFORNIA PROPOSITION 65
71-43-2, Benzene. 108-88-3, Toluene.

Canadian Regulatory Information

WHMIS CLASSIFICATION
D2A - Very Toxic Material Causing Other Toxic Effects
16. OTHER INFORMATION

OTHER

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

,C = ceiling limit  NEGL = negligible
EST = estimated  NF = none found
NA = not applicable  UNKN = unknown
NE = none established  REC = recommended
ND = none determined  V = recommended by vendor
SKN = skin  TS = trade secret
R = recommended  MST = mist
NT = not tested  STEL = short term exposure limit
ppm = parts per million  ppb = parts per billion
By-product= reaction by-product, TSCA inventory status not required under 40 CFR part 720.30(h-2).