Material Safety Data Sheet
acc. to ISO/DIS 11014

1 Identification of substance

· Product details
  · Trade name: M6325 Silaprene Adhesive Sealant
  · Article number: 6325
  · Manufacturer/Supplier:
    Royal Adhesives And Sealants, LLC
    2001 W. Washington Street
    South Bend IN 46628-2023

· Information department: Environment protection department.
· Emergency information: ChemTrec: UNITED STATES 1(800)424-9300 INTERNATIONAL 202-483-7616

2 Composition/Data on components

· Chemical characterization
  · Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:
  108-88-3 toluene 50.0%

· Additional information: For the wording of the listed risk phrases refer to section 15.

3 Hazards identification

· Hazard description:
  Harmful
  Flammable

· Information pertaining to particular dangers for man and environment:
  Highly flammable.
  Harmful by inhalation.

· Classification system:
  The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· NFPA ratings (scale 0 - 4)
  Health = 2
  Fire = 3
  Reactivity = 0

· HMIS-ratings (scale 0 - 4)
  HEALTH 2
  FIRE 3
  PHYSICAL HAZARD 0

4 First aid measures

· General information:
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation: Overexposure, remove to fresh air and seek medical attention.

(Contd. on page 2)
5 Fire fighting measures

- Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
- For safety reasons unsuitable extinguishing agents:
  Water and water with full jet
  Water can be used to cool adjacent surfaces and exposed containers only.
- Protective equipment: Wear self-contained respiratory protective device.

6 Accidental release measures

- Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
- Measures for environmental protection:
  Do not allow product to reach sewage system or any water course.
  Inform respective authorities in case of seepage into water course or sewage system.
- Measures for cleaning/collecting:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose of contaminated material as waste in accordance with federal state and local regulations.
  Ensure adequate ventilation.
  Do not flush with water or aqueous cleansing agents

7 Handling and storage

- Handling:
  Information for safe handling: Ensure good ventilation/exhaustion at the workplace.
  Information about protection against explosions and fires:
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.
- Storage:
  Requirements to be met by storerooms and receptacles: Store in a cool location away from direct heat.
  Information about storage in one common storage facility: Store as flammable liquid.
  Further information about storage conditions:
    Keep receptacle tightly sealed.
    Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls and personal protection

- Additional information about design of technical systems: No further data; see item 7.
Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3 toluene</td>
<td>Short-term: C 300, 500* ppm</td>
<td>Short-term: 560 mg/m³, 150 ppm</td>
<td>188 mg/m³, 50 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term: 200 ppm</td>
<td>Long-term: 375 mg/m³, 100 ppm</td>
<td>Skin; BEI</td>
</tr>
<tr>
<td></td>
<td>*10-min peak per 8-hr shift</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional information: The lists that were valid during the creation were used as basis.

Personal protective equipment (see listings below)

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.

Breathing equipment:
In the absence of adequate ventilation, NIOSH-certified respiratory protection for organic vapor should be used as necessary. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:
Protective gloves

Eye protection:
Safety glasses with side shields.

Body protection:
Protective work clothing

Physical and chemical properties

General Information

Form: Viscous paste
Color: Gray
Odor: Characteristic

Change in condition
Melting point: Undetermined.
Boiling point: 111°C (232°F)

Flash point: 7°C (45°F)

Ignition temperature: 535.0°C (995°F)

Auto igniting: Product is not selfigniting.

Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

Flammable limits:
Lower: 1.2 Vol %
Upper: 7.0 Vol %

Vapor pressure at 20°C (68°F): 29.0 hPa (22 mm Hg)

Specific gravity: 1.070

Solubility in / Miscibility with Water: Not miscible or difficult to mix.

Segregation coefficient (n-octonol/water): N/D
Trade name: M6325 Silaprene Adhesive Sealant

<table>
<thead>
<tr>
<th>Solvent content:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic solvents:</td>
</tr>
<tr>
<td>Solids content:</td>
</tr>
<tr>
<td>Additional information:</td>
</tr>
<tr>
<td>&quot;NOTICE: This product does not comply with the requirements of Rule 1168 of California’s South Coast Air Quality Management District&quot;.</td>
</tr>
<tr>
<td>voc: = 4.46 lbs/gal</td>
</tr>
<tr>
<td>weight per gallon: = 8.91 Lbs.</td>
</tr>
</tbody>
</table>

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: Keep away from extreme heat, sparks, open flames.
- Dangerous reactions: Strong oxidizers, acids and bases.
- Dangerous products of decomposition: Oxides of carbon, nitrogen and hydrocarbons, hydrogen chloride (thermal degradation products).
- Additional information: Stable at ambient temperature and pressures.

11 Toxicological information

- Acute toxicity:
  - LD/LC50 values that are relevant for classification:
    - 108-88-3 toluene
      - Oral LD50: 5000 mg/kg (rat)
      - Dermal LD50: 12124 mg/kg (rabbit)
      - Inhalative LC50/4 h: 5320 mg/l (mouse)
    - Primary irritant effect:
      - on the skin: Irritant to skin and mucous membranes.
      - on the eye: Irritating effect.
      - Sensitization: Sensitization possible through inhalation.
    - Additional toxicological information:
      The product shows the following dangers according to internally approved calculation methods for preparations: Harmful

12 Ecological information

- General notes:
  - Water hazard class 2 (Self-assessment): hazardous for water
  - Do not allow product to reach ground water, water course or sewage system.
  - Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

- Product:
- Recommendation:
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
  Disposal must be made according to official regulations.
Trade name: M6325 Silaprene Adhesive Sealant

14 Transport information

- DOT regulations:
  - Hazard class: 3
  - Identification number: UN1133
  - Packing group: II
  - Proper shipping name (technical name): ADHESIVES

- Land transport ADR/RID (cross-border):
  - ADR/RID class: 3 Flammable liquids
  - UN-Number: 1133
  - Packaging group: II
  - Description of goods: 1133 ADHESIVES

15 Regulations

- Sara
  - Section 355 (extremely hazardous substances):
    None of the ingredients is listed.

- Section 313 (Specific toxic chemical listings):
  - 108-88-3 toluene

- TSCA (Toxic Substances Control Act):
  All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

- Proposition 65

  - Chemicals known to cause cancer:
    None of the ingredients is listed.

  - Chemicals known to cause reproductive toxicity:
    Warning: This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.
    - 108-88-3 toluene

- (DSL) Canada Domestic Substance List
  All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.

- Cancerogenity categories
  - EPA (Environmental Protection Agency)
    - 108-88-3 toluene
  - IARC (International Agency for Research on Cancer)
    - 108-88-3 toluene
  - NTP (National Toxicology Program)
    None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH)
  - 108-88-3 toluene
Trade name: M6325 Silaprene Adhesive Sealant

- **MAK (German Maximum Workplace Concentration)**
  None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**
  None of the ingredients is listed.

- **Product related hazard informations:**
  The product has been classified and marked in accordance with directives on hazardous materials.

  - **Hazard-determining components of labelling:**
    toluene

  - **Risk phrases:**
    Warning: This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.
    Highly flammable.
    Harmful by inhalation.

- **National regulations:**
  - **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

* **16 Other information**

Although the information and recommendations set forth in this MSDS are presented in good faith and are believed to be correct as of the date of this MSDS, Royal Adhesives & Sealants makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the MSDS.

- **Department issuing MSDS:** Environment protection department.