1 Identification of substance

· **Product details**
  · **Trade name:** 39767;39768 Problem Plastic Repair Material
  · **Article number:** 39767;39768
  · **Manufacturer/Supplier:**
    SEM Products, Inc.
    651 Michael Wylie Dr.
    Charlotte, NC 28217
    USA
    (704)522-1006
  · **Information department:** 24HR EMERGENCY CHEMTREC 800-424-9300

2 Composition/Data on components

· **Chemical characterization**
  · **Description:** Mixture of the substances listed below with nonhazardous additions.
  · **Dangerous components:**
    - 66402-68-4 CERAMIC MICROSPHERES 25-50%
    - 1317-65-3 GROUND CALCIUM CARBONATE 25-50%
    - MERCAPTAN TERMINATED POLYMER 10-25%
    - 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700) 10-25%
    - 28064-14-4 BISPHENOL F EPOXY RESIN 2.5-10%
    - 90-72-2 2,4,6-tris(dimethylaminomethyl)phenol \(\leq 2.5\%
    - 84-74-2 dibutyl phthalate \(\leq 2.5\%
    - 2530-83-8 \([3-(2,3-epoxypropoxy)propyl]trimethoxysilane\) \(\leq 2.5\%

3 Hazards identification

· **Hazard description:**
  Toxic
  · **Information pertaining to particular dangers for man and environment:**
    The product has to be labelled due to the calculation procedure of international guidelines.
    May cause harm to the unborn child.
    Harmful by inhalation, in contact with skin and if swallowed.
    Irritating to eyes, respiratory system and skin.
    May cause sensitisation by skin contact.
    Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
    Contains epoxy constituents. See information supplied by the manufacturer.

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

(Contd. on page 2)
Trade name: 39767;39768 Problem Plastic Repair Material

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:**
  Supply fresh air and be sure to call a doctor.
  In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
  Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
  Immediately call a doctor.

5 Fire fighting measures

- **Suitable extinguishing agents:**
  CO2, sand, extinguishing powder. Do not use water.
  Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:**
  Water
- **Protective equipment:**
  Mouth respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:**
  Not required.
- **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.
  Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  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.
Open and handle receptacle with care.
Prevent formation of aerosols.
· **Information about protection against explosions and fires:** Keep respiratory protective device available.

· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Keep receptacle tightly sealed.

**8 Exposure controls and personal protection**

· **Additional information about design of technical systems:** No further data; see item 7.

<table>
<thead>
<tr>
<th>1317-65-3 GROUND CALCIUM CARBONATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL 15*; 5** mg/m³</td>
</tr>
<tr>
<td>REL 10*; 5** mg/m³</td>
</tr>
<tr>
<td>TLV 10 mg/m³</td>
</tr>
<tr>
<td>*(Total dust) **(Respirable fraction)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>84-74-2 dibutyl phthalate</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL 5 mg/m³</td>
</tr>
<tr>
<td>REL 5 mg/m³</td>
</tr>
<tr>
<td>TLV 5 mg/m³</td>
</tr>
</tbody>
</table>

· **Components with limit values that require monitoring at the workplace:**

· **Personal protective equipment:**
· **General protective and hygienic measures:**
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing.
  Wash hands before breaks and at the end of work.
  Store protective clothing separately.
  Avoid contact with the eyes and skin.
· **Breathing equipment:**
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
· **Protection of hands:**

  Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>General Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form:</strong> Fluid</td>
</tr>
<tr>
<td><strong>Color:</strong> According to product specification</td>
</tr>
<tr>
<td><strong>Odor:</strong> Characteristic</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
</tr>
<tr>
<td>Melting point/Melting range: Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range: Undetermined.</td>
</tr>
<tr>
<td><strong>Flash point:</strong> 257°C (495°F)</td>
</tr>
<tr>
<td><strong>Auto igniting:</strong> Product is not selfigniting.</td>
</tr>
<tr>
<td><strong>Danger of explosion:</strong> Product does not present an explosion hazard.</td>
</tr>
<tr>
<td><strong>Density at 20°C (68°F):</strong> 1.62 g/cm³</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with Water:</strong> Not miscible or difficult to mix.</td>
</tr>
<tr>
<td><strong>Solvent content:</strong></td>
</tr>
<tr>
<td>Organic solvents: 0.0 %</td>
</tr>
<tr>
<td>Water: 0.1 %</td>
</tr>
<tr>
<td>VOC content: 3.5 g/l / 0.03 lb/gl</td>
</tr>
<tr>
<td><strong>Solids content:</strong> 99.8 %</td>
</tr>
</tbody>
</table>

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions:** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

### 11 Toxicological information

- **Acute toxicity:**
  - LD/LC50 values that are relevant for classification:
    - 84-74-2 dibutyl phthalate
    - Oral LD50: 8000 mg/kg (rat)
    - Dermal LD50: 20000 mg/kg (rabbit)
- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect.
  - **Sensitization:** Sensitization possible through skin contact.
**12 Ecological information**

- **Ecotoxic effects:**
- **Remark:** Harmful to fish
- **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.
  - Harmful to aquatic organisms

**13 Disposal considerations**

- **Product:**
- **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

- **DOT regulations:**
- **Label**  
  ADHESIVE NON HAZARDOUS
- **Land transport ADR/RID (cross-border):**
  - **ADR/RID class:** 6.1 Toxic substances
  - **Danger code (Kemler):** 60
  - **UN-Number:** 3287
  - **Packaging group:** III
  - **Label:** 6.1
  - **Description of goods:** 3287 TOXIC LIQUID, INORGANIC, N.O.S. (GROUND CALCIUM CARBONATE, MERCAPTAN TERMINATED POLYMER)
Material Safety Data Sheet
acc. to ISO/DIS 11014

Trade name: 39767;39768 Problem Plastic Repair Material

· Maritime transport IMDG:

- IMDG Class: 6.1
- UN Number: 3287
- Label: 6.1
- Packaging group: III
- EMS Number: F-A,S-A
- Marine pollutant: No
- Propper shipping name: TOXIC LIQUID, INORGANIC, N.O.S. (GROUND CALCIUM CARBONATE, MERCAPTAN TERMINATED POLYMER)

· Air transport ICAO-TI and IATA-DGR:

- ICAO/IATA Class: 6.1
- UN/ID Number: 3287
- Label: 6.1
- Packaging group: III
- Propper shipping name: TOXIC LIQUID, INORGANIC, N.O.S. (GROUND CALCIUM CARBONATE, MERCAPTAN TERMINATED POLYMER)

15 Regulations

· Sara

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

- Section 313 (Specific toxic chemical listings):
  68909-14-8 ELASTOMER MODIFIED DIGLYCIDAL ETHER
  84-74-2 dibutyl phthalate
  107-21-1 ethanediol
  67-56-1 methanol

· TSCA (Toxic Substances Control Act):
  25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)
  90-72-2 2,4,6-tris(dimethylaminomethyl)phenol
  13463-67-7 titanium dioxide
  84-74-2 dibutyl phthalate
  17357-23-2 1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane
  280-57-9 quinuclidine
  919-30-2 3-amino(propyl)triethoxysilane
  2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane
  107-21-1 ethanediol
  7631-86-9 silicon dioxide, chemically prepared
  21645-51-2 aluminium hydroxide
  14808-60-7 Quartz (SiO2)
  7732-18-5 water, distilled, conductivity or of similar purity

(Contd. on page 7)
Trade name: 39767;39768 Problem Plastic Repair Material

- Proposition 65
- Chemicals known to cause cancer:
  - reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)
  - BISPHENOL F EPOXY RESIN
  - Quartz (SiO2)

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

- Cancerogenity categories
  - EPA (Environmental Protection Agency)
    - dibutyl phthalate
  - IARC (International Agency for Research on Cancer)
    - titanium dioxide
    - silicon dioxide, chemically prepared
    - Quartz (SiO2)
  - NTP (National Toxicology Program)
    - Quartz (SiO2)
  - TLV (Threshold Limit Value established by ACGIH)
    - titanium dioxide
    - ethanediol
    - Quartz (SiO2)
    - ethanol
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    - titanium dioxide
    - Quartz (SiO2)
  - 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 symbols:
  - Toxic

- Hazard-determining components of labelling:
  - reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)
  - BISPHENOL F EPOXY RESIN
  - dibutyl phthalate
  - GROUND CALCIUM CARBONATE

- Risk phrases:
  - May cause harm to the unborn child.
  - Harmful by inhalation, in contact with skin and if swallowed.
  - Irritating to eyes, respiratory system and skin.
  - May cause sensitisation by skin contact.
  - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Trade name: 39767;39768 Problem Plastic Repair Material

· **Safety phrases:**
  Avoid exposure - obtain special instructions before use.
  Keep locked up and out of the reach of children.
  Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
  Wear suitable protective clothing, gloves and eye/face protection.
  In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

· **Special labeling of certain preparations:**
  Contains epoxy constituents. See information supplied by the manufacturer.

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**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** Environment protection department.
· **Contact:** Mr. George Wallace