1 Identification of substance

- Trade name: **Capa® Monomer**
- Application of the substance / the preparation
  Automotive industry
  Resin
- Manufacturer/Supplier:
  Perstorp UK limited
  Baronet Road
  Warrington
  Cheshire WA4 6HA
  United Kingdom
  Tel. +44 (0) 1925 643500
  Fax. +44 (0) 1925 232207
- Information department: Corporate EHSQ Perstorp Holding AB.
- Emergency information:
  (United States) - CHEMTREC 1-800-424-9300.
  (Int.) +46 8 337043 (Emergency Response Center, Sweden)

2 Composition/Data on components

- Chemical components:
<table>
<thead>
<tr>
<th>Component</th>
<th>Purity</th>
</tr>
</thead>
<tbody>
<tr>
<td>502-44-3 hexan-6-olide</td>
<td>99%</td>
</tr>
</tbody>
</table>

3 Hazards identification

- Information pertaining to particular dangers for man and environment:
  Irritating to eyes.
- 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 = 1
  - Reactivity = 0
- HMIS-ratings (scale 0 - 4)
  - HEALTH 2: Health = 2
  - FIRE 1: Fire = 1
  - REACTIVITY 0: Reactivity = 0

4 First aid measures

- General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately rinse with water.
- 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:
  Fire-extinguishing powder
  Alcohol resistant foam

(Contd. on page 2)
Trade name: **Capa® Monomer**

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon dioxide</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td></td>
</tr>
</tbody>
</table>

**Special hazards caused by the material, its products of combustion or resulting gases:**
- Can form explosive gas-air mixtures.
- In case of fire, the following can be released:
  - Carbon monoxide (CO)

**Protective equipment:** Wear self-contained respiratory protective device.

**Additional information:** Cool endangered receptacles with water spray.

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**6 Accidental release measures**

- **Person-related safety precautions:**
  - Wear protective equipment. Keep unprotected persons away.
  - Keep away from ignition sources

- **Measures for environmental protection:**
  - Prevent from spreading (e.g. by damming-in or oil barriers).
  - Inform respective authorities in case of seepage into water course or sewage system.

- **Measures for cleaning/collection:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Clean the affected area carefully; suitable cleaners are: water

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**7 Handling and storage**

- **Information for safe handling:**
  - Ensure good ventilation/exhaustion at the workplace.
  - Keep away from heat and direct sunlight.
  - Only handle and refill product in closed systems.

- **Information about protection against explosions and fires:**
  - Keep ignition sources away - Do not smoke.

- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
  - **Further information about storage conditions:**
    - This product is hygroscopic.
    - Store in cool, dry conditions in well sealed receptacles.

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**8 Exposure controls and personal protection**

- **Components with limit values that require monitoring at the workplace:**
  - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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

- **Personal protective equipment:**
  - **General protective and hygienic measures:** Avoid contact with the eyes.
  - **Breathing equipment:** Not necessary if room is well-ventilated.

- **Protection of hands:**
  - **Protective gloves**

- **Material of gloves**
  - PVC gloves
  - Chloroprene rubber, CR
  - Butyl rubber, BR
Trade name: **Capa® Monomer**

- **Penetration time of glove material**
  The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**
  Tightly sealed goggles

### 9 Physical and chemical properties

- **General Information**
  - **Form:** Liquid
  - **Color:** Colorless
  - **Odor:** Characteristic
- **Change in condition**
  - **Melting point/Melting range:** -18°C (-0°F)
  - **Boiling point/Boiling range:** 237°C (459°F)
- **Flash point:** 127°C (261°F)
- **Ignition temperature:** 204°C (399°F)
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
  - **Lower:** 1.2 Vol %
  - **Upper:** 9 Vol %
- **Vapor pressure at 25°C (77°F):** 0.81 hPa (1 mm Hg)
- **Density at 20°C (68°F):** 1.08 g/cm³
- **Solubility in / Miscibility with Water:** Fully miscible.
- **Segregation coefficient (n-octanol/water):** 0.68 log POW (Calculated value)
- **Viscosity:**
  - **Dynamic at 20°C (68°F):** 6.67 mPas

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** Direct sunlight and heat.
- **Materials to be avoided:**
  - Polymerization catalysts
  - Water
  - Metals
  - Avoid contact with acids.
  - Avoid contact with bases.
11 Toxicological information

- Acute toxicity:
  - LD/LC50 values that are relevant for classification:
    - **502-44-3 hexan-6-olide**
      - Oral: LD50 > 2000 mg/kg (rat)
      - Dermal: LD50 > 2000 mg/kg (rbt)
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: Irritating effect.
  - Sensitization: No sensitizing effects known.

- Subacute to chronic toxicity:
  - **502-44-3 hexan-6-olide**
    - Oral: NOEL/14d 2000 ppm (rat)
    - Inhalative: NOEL/90 d 15 ppm (rat)

- Additional toxicological information:
  - In case of prolonged contact: slight irritation
  - In case of repeated contact: dry and chapped skin

12 Ecological information

- Information about elimination (persistence and degradability):
  - **502-44-3 hexan-6-olide**
    - Abiotic degradation:
      - 16d t 1/2 (pH4)
      - 53d t 1/2 (pH7)
      - 2.2d t 1/2 (pH9)
    - Biotic degradation: 58-100 % (STURM)

- Other information: The product is readily biodegradable.
- Behavior in environmental systems:
  - Mobility and bioaccumulation potential:
    - Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.
  - Ecotoxical effects:

- Aquatic toxicity:
  - **502-44-3 hexan-6-olide**
    - EC50/16 hr: 1280 mg/L (bacteria)
    - EC50/48 h: 204 mg/l (daphnia)
    - EC50/72 h: 1217 mg/l (alga)
    - LC50/96 h: 295 mg/l (fish)
    - NOEC: 256 mg/l (alga)
      - 16 mg/l (bacteria)
      - 124 mg/l (daphnia)
      - 250 mg/l (fish)

- Remark: Not 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.

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Trade name: **Capa® Monomer**

- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- **DOT regulations:**
  - **Hazard class:** -
- **Land transport ADR/RID (cross-border):**
  - **ADR/RID class:** -
- **Maritime transport IMDG:**
  - **IMDG Class:** -
- **Air transport ICAO-TI and IATA-DGR:**
  - **ICAO/IATA Class:** -

- **Transport/Additional information:** Not dangerous according to the above specifications.

### 15 Regulations

- **Sara**
  - **Section 355 (extremely hazardous substances):** None of the ingredient is listed.
  - **Section 313 (Specific toxic chemical listings):** None of the ingredients is listed.
  - **TSCA (Toxic Substances Control Act):** All ingredients are listed.

- **Proposition 65**
  - **Chemicals known to cause cancer:** None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for females:** None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for males:** None of the ingredients is listed.
  - **Chemicals known to cause developmental toxicity:** None of the ingredients is listed.

- **Carcinogenicity categories**
  - **EPA (Environmental Protection Agency)** None of the ingredients is listed.
  - **IARC (International Agency for Research on Cancer)** None of the ingredients is listed.
  - **NTP (National Toxicology Program)** None of the ingredients is listed.
  - **TLV (Threshold Limit Value established by ACGIH)** None of the ingredients is listed.
  - **MAK (German Maximum Workplace Concentration)** None of the ingredients is listed.
### Trade name: Capa® Monomer

<table>
<thead>
<tr>
<th>(Contd. of page 5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NIOSH-Ca (National Institute for Occupational Safety and Health)</strong></td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td><strong>OSHA-Ca (Occupational Safety &amp; Health Administration)</strong></td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td><strong>Canadian Domestic Substance List (DSL)</strong></td>
<td>All ingredients are listed.</td>
</tr>
<tr>
<td><strong>Chinese Chemical Inventory of Existing Chemical Substances</strong></td>
<td>All ingredients are listed.</td>
</tr>
<tr>
<td><strong>Japan Existing and New chemical Substance List (ENCS)</strong></td>
<td>502-44-3 hexan-6-olide</td>
</tr>
<tr>
<td><strong>Korea Existing Chemical Inventory</strong></td>
<td>502-44-3 hexan-6-olide KE-27460</td>
</tr>
</tbody>
</table>

### 16 Other information

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

- **Department issuing MSDS:** Corporate EHSQ Perstorp Holding AB

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USA