1 Identification of the substance/mixture and of the company/undertaking

- **Product name:** Capa™ 4101
- **Product identifier**
  - 2-oxepanone, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol
  - Cas No.: 35484-93-6
  - EC Number: polymer
- **Application of the substance / the preparation**
  - Paints
  - Automotive industry
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    - Perstorp UK Limited
    - Baronet Road
    - Warrington
    - Cheshire WA4 6HA
    - United Kingdom
    - Tel. +44 (0) 1925 643500
    - Fax. +44 (0) 1925 232207
    - Web: www.perstorp.com
  - Perstorp Polylols Inc
    - 600 Matzinger Road
    - Toledo, Ohio 43612
    - Tel. 419-729-5448,
    - 800-537-0280
    - Fax. 419-729-3291
  - **Information department:** productinfo@perstorp.com
  - **Emergency telephone number:**
    - (United States) - CHEMTREC 1-800-424-9300.
    - (Int.) +46 8 337043 (Emergency Response Center, Sweden)

2 Composition/information on ingredients

- **Chemical characterization:** Substances Yes.
- **Chemical components:**

<table>
<thead>
<tr>
<th>CAS NO.</th>
<th>Description</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>35484-93-6</td>
<td>2-oxepanone, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol</td>
<td>&gt;99%</td>
</tr>
</tbody>
</table>

3 Hazards identification

- **Hazard description:** No special hazards are associated with this product.
- **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 0
    - Fire = 1
    - Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - HEALTH 0
    - FIRE 1
    - REACTIVITY 0

(Contd. on page 2)
Product name: Capa™ 4101

**4 First aid measures**

- **After inhalation:** First aid measures not required, but get fresh air for personal comfort.
- **After skin contact:** First aid measures not required, but wash exposed skin with soap and water for hygienic reasons.
- **After eye contact:** First aid measures not needed. Rinse eye anyway with water.
- **After swallowing:** If a large quantity has been ingested or you feel unwell, get medical advice/attention.

**5 Firefighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:**
  - Water spray
  - Foam
  - Carbon dioxide
  - Fire-extinguishing powder
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
  - In case of fire, the following can be released:
    - Carbon monoxide (CO)
    - Carbon dioxide (CO2)
    - Monomer (2-Oxepanone, Hexan-6-Olide, CAS 502-44-3)
- **Protective equipment:** Wear self-contained respiratory protective device.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**
  - Ensure adequate ventilation
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
  - Clean the affected area carefully; suitable cleaners are:
    - Water
- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

**7 Handling and storage**

- **Precautions for safe handling** Keep away from heat and direct sunlight.
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
  - **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.
8 Exposure controls/personal protection

- Components with limit values that require monitoring at the workplace: Not required.
- Occupational Exposure Limit Listings
  - OSHA-Ca (Occupational Safety & Health Administration)
    Substance is not listed.
  - TLV (Threshold Limit Value established by ACGIH)
    Substance is not listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    Substance is not listed.
- Personal protective equipment:
  - 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
  - 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:
  - Safety glasses
- Body protection: Normal work clothes for the chemical industry (long legs and sleeves).

9 Physical and chemical properties

- General Information
- Appearance:
  - Form: Liquid
  - Color: Colorless
- Odor:
  - Odorless
- Odour threshold: Not applicable
- Change in condition
  - Melting point/Melting range: 10-20 °C (50-68 °F)
  - Boiling point/Boiling range: Undetermined.
- Flash point: 275 °C (527 °F)
- Ignition temperature:
  - Decomposition temperature: 200 °C (392 °F)
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Not explosive.
- Explosion limits: Not applicable
- Oxidizing properties: Not oxidizing.
Product name: **Capa™ 4101**

- Density at 20 °C (68 °F): 1.12 g/cm³ (9.346 lbs/gal)
- Solubility in / Miscibility with Water: Not miscible or difficult to mix.
- Segregation coefficient (n-octanol/water): Undetermined.
- Viscosity:
  - Dynamic at 50 °C (122 °F): 340-530 mPas
  - Other information: No further relevant information available.

### 10 Stability and reactivity

- **Reactivity**
  There exists no specific test data for this product. For further information, see the subsequent subsections of this chapter.
- **Chemical stability**
  The product is stable at normal conditions.
- **Thermal decomposition / conditions to be avoided:**
  To avoid thermal decomposition do not overheat.
- **Possibility of hazardous reactions**
  Possible decomposition and release of monomer at temperatures above 200°C.
- **Conditions to avoid**
  To avoid thermal decomposition do not overheat.
- **Incompatible materials:**
  Avoid contact with acids.
  Avoid contact with bases.
- **Hazardous decomposition products:**
  Possible decomposition and release of monomer at temperatures above 200°C.

### 11 Toxicological information

- **Acute toxicity:**
  - **LD/LC50 values:** The polymer is not bioavailable because of its molecular size.
- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** No irritating effect.
- **Carcinogenicity:** No information available.

### 12 Ecological information

- **Aquatic toxicity:**
  No test data exist for this product. However, based on the molecular size of the polymer it is believed to be too large to penetrate biological membranes.
- **Persistence and degradability**
  No further relevant information available.
- **Other information:**
  The product is readily biodegradable.
- **Behavior in environmental systems:**
  - **Bioaccumulative potential**
    No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
  The product is not classified as hazardous waste.
Product name: Capa™ 4101

14 Transport information

- UN Number
  - DOT, ADR, ADN, IMDG, IATA
  - 
- Proper shipping name (Technical Name)
  - DOT, ADR, ADN, IMDG, IATA
  - 
- Transport hazard class(es)
  - DOT, ADR, ADN, IMDG, IATA
  - 
- Class
  - 
- Packing group
  - DOT, ADR, IMDG, IATA
  - 
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  - Not applicable.
- Transport/Additional information:
  - Not dangerous according to the above specifications.

15 Regulatory information

- Sara
  - Section 355 (extremely hazardous substances):
    Substance is not listed.
  - Section 313 (Specific toxic chemical listings):
    Substance is not listed.
  - Carcinogenic categories
    - EPA (Environmental Protection Agency)
      Substance is not listed.
    - IARC (International Agency for Research on Cancer)
      Substance is not listed.
    - NTP (National Toxicology Program)
      Substance is not listed.
- Inventory status:
  - Australian Inventory of Chemical Substances (AICS)
    Substance is listed.
  - Canadian Domestic Substance List (DSL)
    Substance is not listed.
  - Canadian Non Domestic Substance List (NDSL)
    Substance is listed.
  - Chinese Chemical Inventory of Existing Chemical Substances (CIECS)
    Substance is listed.
  - European EINECS/ELINCS Listing
    Exempt, polymer
    Substance is not listed.
Product name: **Capa™ 4101**

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan Existing and New chemical Substance List (ENCS)</td>
<td>Substance is listed.</td>
</tr>
<tr>
<td>Korea Existing Chemical Inventory (KECI)</td>
<td>Substance is listed.</td>
</tr>
<tr>
<td>New Zealand Inventory of Chemicals (NZIoC)</td>
<td>Substance is listed.</td>
</tr>
<tr>
<td>Philippines Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Exempt</td>
</tr>
<tr>
<td>TSCA listing</td>
<td>Substance is listed.</td>
</tr>
<tr>
<td>Other regulations, limitations and prohibitive regulations</td>
<td></td>
</tr>
<tr>
<td>Proposition 65</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for females</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for males</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>Chemicals known to cause developmental toxicity</td>
<td>Substance is not listed.</td>
</tr>
</tbody>
</table>

### 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**: Corporate EHSQ Perstorp Holding AB
- * Data compared to the previous version altered.*