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

· **Product name:** Capa™ 2101A

· **Application of the substance / the preparation**
  Manufacture of polyurethane
  Adhesives
  Binder
  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 Polyols Inc
  600 Matzinger Road
  Toledo, Ohio 43612
  Tel. 419-729-5448,
  800-537-0280
  Fax. 419-729-3291

  www.perstorp.com

· **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**

· **Chemical components:**

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Description</th>
<th>%</th>
</tr>
</thead>
</table>
  | 69089-45-8 | 2-oxepanone, polymer with 2,2-dimethyl-1,3-propanediol | > 99%

3 Hazards identification

· **Hazard description:** Not applicable

· **Classification system:**

  · **NFPA ratings (scale 0 - 4)**
    
    ![NFPA rating](image)
    
    Health = 1
    Fire = 1
    Reactivity = 0

  · **HMIS-ratings (scale 0 - 4)**

    ![HMIS rating](image)
    
    Health = 1
    Fire = 1
    Reactivity = 0

(Contd. on page 2)
Product name: Capa™ 2101A

· Other hazards
  Caution - substance not yet fully tested.
  Due to the structure of the substance and studies made on similar products we assume that the product is unclassified.

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: Rinse opened eye for several minutes under running 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)
  Monomer (2-Oxepanone, Hexan-6-Olide, CAS 502-44-3)
· Protective equipment:
  Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
  Wear safety glasses, gloves, protective clothing and rubber boots for hygienic reasons.
· Environmental precautions: Do not allow product to reach sewage system or any water course.
· Methods and material for containment and cleaning up:
  Pick up mechanically.
  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
  Wear personal protective equipment according to section 8 if risk of exposure.
  Keep away from heat and direct sunlight.
· Information about protection against explosions and fires: Not applicable
Product name: **Capa™ 2101A**

- **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:**
  - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:**
  - **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:**
  - **General protective and hygienic measures:**
    - The usual precautionary measures for handling chemicals should be followed.
  - **Breathing equipment:** Not necessary if room is well-ventilated.
  - **Protection of hands:**
    - Protective gloves not really required. However, we recommend using protective gloves made of rubber.
  - **Material of gloves**
    - PVC gloves
    - Chloroprene rubber, CR
    - Butyl rubber, BR
    - 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.
  - **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).
- **Limitation and supervision of exposure into the environment** Not applicable

### 9 Physical and chemical properties

- **General Information**
  - **Appearance:**
    - **Form:** Solid (wax)
    - **Color:** White
    - **Odor:** Odorless
### Material Safety Data Sheet

**Product name:** Capa™ 2101A

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in condition</td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range:</td>
<td>30 - 40 °C (86 - 104 °F)</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Flash point:</td>
<td>275 °C (527 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gaseous):</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Ignition temperature:</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>approx 200 °C (approx 392 °F)</td>
</tr>
<tr>
<td>Danger of explosion:</td>
<td>Not explosive.</td>
</tr>
<tr>
<td>Explosion limits:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidizing properties:</td>
<td>Not oxidizing.</td>
</tr>
<tr>
<td>Vapor pressure:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Density at 40 °C (104 °F):</td>
<td>1.05 g/cm³ (8.762 lbs/gal)</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water:</td>
<td>Insoluble.</td>
</tr>
<tr>
<td>Segregation coefficient (n-octanol/water):</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
</tr>
<tr>
<td>Dynamic at 60 °C (140 °F):</td>
<td>150 mPas</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

### 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.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** Heat

**Incompatible materials:**
- Avoid contact with acids.
- Avoid contact with bases.

**Hazardous decomposition products:**
Possible decomposition and release of monomer at temperatures above 200 °C (392 °F).

### 11 Toxicological information

**Acute toxicity:**
- LD/LC50 values: No information available.

**Primary irritant effect:**
- on the skin: No information available.
- on the eye: No information available.

**Sensitization** No sensitizing effects known.

**Carcinogenicity:** No information available.

**Mutagenicity:** No information available.

**Reproductive toxicity:** No information available.
**Product name:** Capa™ 2101A

- **Remark:**
  Caution - substance not yet fully tested.
  Due to the structure of the substance and studies made on similar products we assume that the product is unclassified.

**12 Ecological information**

- **Aquatic toxicity:** No information available.
- **Persistence and degradability** No information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No information available.
- **Remark:**
  Caution - substance not yet fully tested.
  Due to the structure of the substance and studies made on similar products we assume that the product is unclassified.

**13 Disposal considerations**

- **Waste treatment methods** The product is not classified as hazardous waste.
- **Uncleaned packagings:**
  Contaminated packaging materials must be disposed of in the same manner as the product.
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**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.
### Product name: Capa™ 2101A

**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.

- **Japan Existing and New chemical Substance List (ENCS)**
  - Substance is listed.

- **Korea Existing Chemical Inventory (KECI)**
  - Substance is listed.

- **New Zealand Inventory of Chemicals (NZIoC)**
  - Substance is listed.

- **Philippines Inventory of Chemicals and Chemical Substances (PICCS)**
  - Exempt, all monomers listed
  - Substance is not listed.

- **TSCA listing**
  - Substance is listed.

- **Other regulations, limitations and prohibitive regulations**

  - **Proposition 65**
    - Substance is not listed.

  - **Chemicals known to cause reproductive toxicity for females:**
    - Substance is not listed.

  - **Chemicals known to cause reproductive toxicity for males:**
    - Substance is not listed.

  - **Chemicals known to cause developmental toxicity:**
    - Substance is not listed.
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.