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

- **Product name:** Capa™ 2200
- **Product identifier**
  - 2-oxepanone, polymer with 2,2-dimethyl-1,3-propanediol
  - Cas No.: 69089-45-8
  - EC No: polymer
- **Application of the substance / the preparation**
  - Footwear industry
  - Automotive industry
  - Binder
  - Adhesives
  - Polyurethane
- **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:**
    - 69089-45-8 2-oxepanone, polymer with 2,2-dimethyl-1,3-propanediol 99%

3 Hazards identification

- **Hazard description:**
  - 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.

(Contd. on page 2)
34.0.9

· Classification system:
· NFPA ratings (scale 0 - 4)

Health = 1
Fire = 1
Reactivity = 0

· HMIS-ratings (scale 0 - 4)

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<tr>
<th>HEALTH</th>
<th>FIRE</th>
<th>REACTIVITY</th>
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<tr>
<td>1</td>
<td>1</td>
<td>0</td>
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Health = 1
Fire = 1
Reactivity = 0

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
  Foam
  Carbon dioxide
  Fire-extinguishing powder
· For safety reasons unsuitable extinguishing agents: Water with full jet
· Special hazards arising from the substance or mixture
  Formation of toxic gases is possible during heating or in case of fire.
  In case of fire, the following can be released:
  Carbon monoxide (CO)
  Monomer (2-Oxepanone, Hexan-6-Olide, CAS 502-44-3)
· Protective equipment: Wear self-contained respiratory protective device.
· Additional information The product is combustible

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
  Ensure adequate ventilation
· 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.
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.
- 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:
  - 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: Solid (wax)
Product name: Capa™ 2200

- **Color:** White
- **Odor:** Odorless
- **Change in condition**
  - **Melting point/Melting range:** 40 - 50 °C (104 - 122 °F)
- **Flash point:** 275 °C (527 °F)
- **Ignition temperature:** approx 200 °C (approx 392 °F)
- **Decomposition temperature:** Not applicable
- **Danger of explosion:** Not applicable
- **Explosion limits:** Not applicable
- **Oxidizing properties:** Not applicable
- **Density at 55°C (131 °F):** 1.07 g/cm³ (8.929 lbs/gal)
- **Solubility in / Miscibility with Water:** Insoluble.
- **Segregation coefficient (n-octanol/water):** Undetermined.
- **Viscosity**
  - **Dynamic at 60°C (140 °F):** 525 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 (392°F).
- **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 (392°F).

### 11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values:** The polymer is not bioavailable because of its molecular size.
- **Primary irritant effect:**
  - **on the skin:** Not available.
  - **on the eye:** Not available.
- **Carcinogenicity:** No information available.
Product name: **Capa™ 2200**

### 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.
- **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.
- **Uncleaned packagings:**
  - **Recommendation:** Non contaminated packagings can be used for recycling.

### 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 -
- **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.
### 34.0.9 Other regulations, limitations and prohibitive regulations

- **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**
    None of the ingredients is 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)**
    All ingredients are listed.
  - **TSCA listing**
    Substance is listed.
  - **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.**