

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 01.06.2015

Revision: 01.06.2015

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name: Hera SP 99****CAS Number:**

1303-96-4

**EC number:**

215-540-4

**Index number:**

005-011-01-1

**Registration number 01-2119490790-32-XXXX****1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

**Application of the substance / the mixture** Auxiliary for manufacture of dental prothesis**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Heraeus Kulzer GmbH

Grüner Weg 11, D-63450 Hanau

Tel.: 0800 4372522

**Informing department:** E-Mail: [msds@kulzer-dental.com](mailto:msds@kulzer-dental.com)**1.4 Emergency telephone number:**

Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Repr. 1B H360FD May damage fertility. May damage the unborn child.

Eye Irrit. 2 H319 Causes serious eye irritation.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

T; Toxic

Repr. Cat. 2

R60-61: May impair fertility. May cause harm to the unborn child.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

**Hazard pictograms**

GHS07 GHS08

**Signal word** Danger**Hazard-determining components of labelling:**

disodium tetraborate decahydrate

**Hazard statements**

H319 Causes serious eye irritation.

H360FD May damage fertility. May damage the unborn child.

**Precautionary statements**

P281 Use personal protective equipment as required.

P202 Do not handle until all safety precautions have been read and understood.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

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Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**  
Restricted to professional users.
- **2.3 Other hazards -**
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterization: Substances**
  - **CAS No. Designation:**  
1303-96-4 disodium tetraborate decahydrate  
1303-96-4
  - **Identification number(s): -**
    - **EC number:** 215-540-4
    - **Index number:** 005-011-01-1
  - **Dangerous components:** Void
  - **SVHC**

1303-96-4	disodium tetraborate decahydrate
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### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
  - **General information** Instantly remove any clothing soiled by the product.
  - **After inhalation** Supply fresh air and call for doctor for safety reasons.
  - **After skin contact** Instantly wash with water and soap and rinse thoroughly.
  - **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
  - **After swallowing**  
Rinse out mouth and then drink plenty of water.  
Seek medical treatment.
- **4.2 Most important symptoms and effects, both acute and delayed** Gastric or intestinal trouble
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
  - **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.  
Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture**  
No further relevant information available.
- **5.3 Advice for firefighters**
  - **Protective equipment:**  
Wear self-contained breathing apparatus.  
Wear full protective suit.
  - **Additional information -**

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**SECTION 6: Accidental release measures****· 6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Avoid causing dust.

Wear protective equipment. Keep unprotected persons away.

Use breathing protection against the effects of fumes/dust/aerosol.

Avoid contact with eyes and skin.

**· 6.2 Environmental precautions:**

Damp down dust with water spray jet.

Do not allow to enter drainage system, surface or ground water.

Inform respective authorities in case product reaches water or sewage system.

**· 6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

Collect mechanically.

Send for recovery or disposal in suitable containers.

Dispose of the material collected according to regulations.

**· 6.4 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 information on disposal.

**SECTION 7: Handling and storage****· 7.1 Precautions for safe handling**

Wear protective equipment. Keep unprotected persons away.

Avoid contact with eyes and skin.

Ensure good ventilation/exhaustion at the workplace.

Extractor required on object.

Prevent formation of dust.

Any deposit of dust which cannot be avoided must be removed regularly.

**· Information about protection against explosions and fires:** The product is not flammable**· 7.2 Conditions for safe storage, including any incompatibilities****· Storage****· Requirements to be met by storerooms and containers:** No special requirements.**· Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from reducing agents.

**· Further information about storage conditions:**

Store container in a well ventilated position.

Store in cool, dry conditions in well sealed containers.

Protect from humidity and keep away from water.

This product is hygroscopic.

Store in a locked cabinet or with access restricted to technical experts or their assistants.

**· 7.3 Specific end use(s)** No further relevant information available.**SECTION 8: Exposure controls/personal protection****· Additional information about design of technical systems:** No further data; see item 7.**· 8.1 Control parameters****· Components with critical 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.

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<b>· DNELs</b>		
<b>1303-96-4 disodium tetraborate decahydrate</b>		
Oral	ge.pop., acu., syst.	1.51 mg/Kg (nd)
	ge.pop., l.te, syst.	1.51 mg/Kg (nd)
Dermal	ge.pop., l.te, syst.	303.5 mg/Kg/d (nd)
	worker industr., l.te., syst.	599.6 mg/Kg/d (nd)
Inhalative	ge.pop., acu., local	22.3 mg/m <sup>3</sup> (nd)
	ge.pop., l.te, local	22.3 mg/m <sup>3</sup> (nd)
	ge.pop., l.te, syst.	6.5 mg/m <sup>3</sup> (nd)
	worker industr., acute, local	22.3 mg/m <sup>3</sup> (nd)
	worker industr., l.te., local	22.3 mg/m <sup>3</sup> (nd)
	worker industr., l.te., syst.	12.76 mg/m <sup>3</sup> (nd)

<b>· PNECs</b>	
<b>1303-96-4 disodium tetraborate decahydrate</b>	
STP	10 mg/l (nd)
freshwater	2.02 mg/l (nd)
marine water	2.02 mg/l (nd)
soil,dw	5.4 mg/Kg (nd)

**· Additional information:** The lists that were valid during the compilation were used as basis.

**· 8.2 Exposure controls**

**· Personal protective equipment**

**· General protective and hygienic measures**

- Avoid contact with the eyes.
- Keep away from foodstuffs, beverages and food.
- Instantly remove any soiled and impregnated garments.
- Store protective clothing separately.
- Ensure that washing facilities are available in the work place.
- Do not eat, drink or smoke while working.
- Do not inhale dust / smoke / mist.
- Pregnant women must strictly avoid inhalation or contact with the skin.
- Avoid close or long term contact with the skin.
- Wash hands during breaks and at the end of the work.
- Use skin protection cream for preventive skin protection.

**· Breathing equipment:**

- Use breathing protection in case of insufficient ventilation.
- Filter P3.

**· Protection of hands:**

- Impervious gloves
- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- Check the permeability prior to each renewed use of the glove.
- To avoid skin problems reduce the wearing of gloves to the required minimum.
- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

**· Material of gloves**

- Natural rubber, NR
- Chloroprene rubber, CR
- Nitrile rubber, NBR
- Butyl rubber, BR
- Fluorocarbon rubber (Viton)
- Recommended thickness of the material:  $\geq 0.5$  mm

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- 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** Value for the permeation: Level  $\leq$  8 h
  - **Eye protection:** Tightly sealed safety glasses.
  - **Body protection:** Protective work clothing.

### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

##### · Appearance:

##### · Form:

Solid in various forms

Powder

Granulate

##### · Colour:

White

##### · Smell:

Odourless

· pH-value at 20 °C:	9.2
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##### · Change in condition

##### · Melting point/Melting range:

62 °C

##### · Boiling point/Boiling range:

1575 °C

##### · Flash point:

Not applicable

##### · Inflammability (solid, gaseous)

Product is not inflammable.

##### · Danger of explosion:

Product is not explosive.

##### · Critical values for explosion:

##### · Lower:

Not determined.

##### · Upper:

Not determined.

##### · Steam pressure at 20 °C:

0 hPa

##### · Density at 20 °C

1.71 g/cm<sup>3</sup>

##### · Relative density

Not determined.

##### · Solubility in / Miscibility with

##### · Water at 20 °C:

~47 g/l

##### · Partition coefficient (n-octanol/water) at 25 °C:

-0.757 log POW

##### · Viscosity:

##### · dynamic:

Not applicable.

##### · kinematic:

Not applicable.

##### · Solids content:

100.0 %

#### · 9.2 Other information

No further relevant information available.

### SECTION 10: Stability and reactivity

#### · 10.1 Reactivity

#### · 10.2 Chemical stability

##### · Conditions to be avoided:

No decomposition if used and stored according to specifications.

Loss of constitutional water on heating

#### · 10.3 Possibility of hazardous reactions

Reacts with reducing agents

Reacts with light alloys to form hydrogen

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- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Reacts with reducing agents

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**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**1303-96-4 disodium tetraborate decahydrate**

Oral LD50 4500-5000 mg/kg (rat)

Dermal LD50 >10000 mg/kg (rabbit)

- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** Irritant effect.
- **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**
  - Product is suspected to cause injury to foetus.
  - May impair fertility.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
  - Repr. 1B

**SECTION 12: Ecological information**

- **12.1 Toxicity**

- **Aquatic toxicity:**

**1303-96-4 disodium tetraborate decahydrate**

EC50/48h 1085-1402 mg/l (daphnia)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential**
  - Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.
- **12.4 Mobility in soil** No further relevant information available.
  - **Additional ecological information:**
    - **General notes:** Avoid transfer into the environment.
- **12.5 Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
  - **Recommendation** Disposal must be made according to official regulations.
- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

- **14.1 UN-Number**
  - **ADR, ADN, IMDG, IATA** Void

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|---|-----------------|
| · <b>14.2 UN proper shipping name</b>   |                 |
| · ADR   | Void            |
| · ADN, IMDG, IATA   | Void            |
| · <b>14.3 Transport hazard class(es)</b>  |                 |
| · ADR, ADN, IMDG, IATA  |                 |
| · Class   | Void            |
| · <b>14.4 Packing group</b>   |                 |
| · ADR, IMDG, IATA   | Void            |
| · <b>14.5 Environmental hazards:</b>  |                 |
| · Marine pollutant:   | No              |
| · <b>14.6 Special precautions for user</b>  | Not applicable. |
| · <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>Transport/Additional information:</b>  | -               |
| · <b>UN "Model Regulation":</b>   | -               |

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
    - **National regulations**
      - **Information about limitation of use:**  
Employment restrictions concerning young persons must be observed.  
Employment restrictions concerning pregnant and lactating women must be observed.  
Employment restrictions concerning women of child-bearing age must be observed.
      - **Other regulations, limitations and prohibitive regulations**
        - **Substances of very high concern (SVHC) according to REACH, Article 57**
- |           |                                  |
|-----------|----------------------------------|
| 1303-96-4 | disodium tetraborate decahydrate |
|-----------|----------------------------------|
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Abbreviations and acronyms:**  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
DNEL: Derived No-Effect Level (REACH)  
PNEC: Predicted No-Effect Concentration (REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
Repr. 1B: Reproductive toxicity, Hazard Category 1B
- \* **Data compared to the previous version altered.**