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

1.1 Product identifier

- Trade name: ESTENIA C&B ; CR SEP III
- Article number: 095-CS3
- Registration number: Not applicable

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

1.3 Details of the supplier of the safety data sheet

- Manufacturer:
  Kuraray Europe GmbH
  Philipp-Reis-Str. 4,
  65795 Hattersheim am Main
  Germany
  Phone:+49 (0)69 305 35 840
  Fax:+49 (0)69 305 35 640
  E-mail: dental@kuraray.de

- Supplier:
  J & S Davis
  5 Whitworth Road, Stevenage,
  Hertfordshire, SG1 4QS
  Great Britain
  Tel: +44- (0) 1438 747344
  Fax: +44- (0)1438 758909
  E-mail: jsdsales@js-davis.co.uk

- Further information obtainable from: Manufacturer or Supplier

1.4 Emergency telephone number:

National Poisons information Service (London Centre)
Guy’s & St. Thomas’ Hospital Trust
Medical Toxicology Unit
Avonley Road
LONDON
SE14 5ER
Emergency telephone: (local) 0870 600 6266 or +44 20 7771 5394
Administrative telephone: +44 20 7 771 53 10
Facsimile number: +44 20 7 771 53 09

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

- GHS02 flame
  Flam. Liq. 2  H225  Highly flammable liquid and vapour.

- GHS08 health hazard
  Asp. Tox. 1  H304  May be fatal if swallowed and enters airways.

- GHS09 environment
  Aquatic Acute 1  H400  Very toxic to aquatic life.
  Aquatic Chronic 1  H410  Very toxic to aquatic life with long lasting effects.
Safety data sheet
according to 1907/2006/EC, Article 31

Trade name: ESTENIA C&B ; CR SEP III

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2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.

Hazard pictograms GHS02, GHS07, GHS08, GHS09

Signal word Danger

Hazard-determining components of labelling:
cyclohexane

Hazard statements
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H304 May be fatal if swallowed and enters airways.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

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SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation: Substances
None

3.2 Chemical characterisation: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

- CAS: 110-82-7 cyclohexane
- EINECS: 203-806-2

- Flammable Liquid 2, H225
- Asphyxiating 1, H304
- Aquatic Acute 1, H400
- Aquatic Chronic 1, H410
- Skin Irritation 2, H315
- STOT SE 3, H336

Other ingredients: Cycloolefin polymer

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(Contd. on page 3)
SECTION 4: First aid measures

· 4.1 Description of first aid measures
  · After inhalation:
    Supply fresh air and be sure to call for a doctor.
    In case of unconsciousness place patient stably in side position for transportation.
  · After skin contact:
    Immediately wash with water and soap and rinse thoroughly.
  · After eye contact:
    Rinse opened eye for several minutes under running water.
  · After swallowing:
    Do not induce vomiting; call for medical help immediately.
    If symptoms persist consult doctor.
· 4.2 Most important symptoms and effects, both acute and delayed
  No further relevant information available.
· 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: CO2, sand, extinguishing powder. Do not use water.
  · For safety reasons unsuitable extinguishing agents: Water with full jet
· 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 respiratory protective device.
    Wear fully protective suit.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
· 6.2 Environmental precautions:
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow to enter sewers/surface or ground water.
· 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
  Do not flush with water or aqueous cleansing agents
· 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 disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling
  Ensure good ventilation/exhaustion at the workplace.
  Prevent formation of aerosols.
· Information about fire - and explosion protection:
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.
7.2 Conditions for safe storage, including any incompatibilities

Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location (2-25 °C).
- Information about storage in one common storage facility:
  Store away from oxidising agents.
  Store away from reducing agents.
- Further information about storage conditions:
  Keep container tightly sealed.
  Store in cool, dry conditions in well sealed receptacles.
  Protect from heat and direct sunlight.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>110-82-7 cyclohexane</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL Short-term value: 1050 mg/m³, 300 ppm</td>
</tr>
<tr>
<td>Long-term value: 350 mg/m³, 100 ppm</td>
</tr>
</tbody>
</table>

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:
- General protective and hygienic measures:
  Immediately remove all soiled and contaminated clothing
  Wash hands before breaks and at the end of work.
  Avoid contact with the eyes and skin.
- Respiratory protection:
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- Protection of hands:
  - Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- Material of gloves
  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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- Penetration time of glove material
  The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:** Liquid
  - **Colour:** Transparent
  - **Odour:** Oil odour

- **pH-value:** Not determined

- **Change in condition**
  - **Melting point/Melting range:** 6.4 °C (cyclohexane)
  - **Boiling point/Boiling range:** 81 °C (cyclohexane)

- **Flash point:** -18 °C (cyclohexane)

- **Ignition temperature:** 260.0 °C (cyclohexane)

- **Decomposition temperature:** Not determined

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**
  - **Lower:** 1.2 Vol % (cyclohexane)
  - **Upper:** 8.3 Vol % (cyclohexane)

- **Oxidising properties:** Not determined

- **Vapour pressure:** 104.0 hPa (20 °C, cyclohexane)

- **Density:** 0.8 g/cm³ (cyclohexane)

- **Relative density:** Not determined

- **Vapour density:** 2.9 g/cm³ (cyclohexane, air=1)

- **Evaporation rate:** Not determined

- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not applicable

- **Viscosity:** Not determined

- **9.2 Other information**
  - No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.

- **10.2 Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
  - **10.3 Possibility of hazardous reactions** No dangerous reactions known.

- **10.4 Conditions to avoid** No further relevant information available.

- **10.5 Incompatible materials:** No further relevant information available.
10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Harmful if swallowed.

LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th></th>
<th>110-82-7 cyclohexane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD50 813 mg/kg (mouse) 12705 mg/kg (rat)</td>
</tr>
</tbody>
</table>

Primary irritant effect:
- Skin corrosion/irritation
  Causes skin irritation.
- Serious eye damage/irritation
  Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation
  Based on available data, the classification criteria are not met.
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  Based on available data, the classification criteria are not met.
- Germ cell mutagenicity
  Based on available data, the classification criteria are not met.
- Reproductive toxicity
  Based on available data, the classification criteria are not met.
- STOT-single exposure
  May cause drowsiness or dizziness.
- STOT-repeated exposure
  Based on available data, the classification criteria are not met.
- Aspiration hazard
  May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

<table>
<thead>
<tr>
<th></th>
<th>110-82-7 cyclohexane</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LC50/48h 9 mg/l (orange-red killifish)</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability
No further relevant information available.

12.3 Bioaccumulative potential
No further relevant information available.

12.4 Mobility in soil
No further relevant information available.

Ecotoxicological effects:
- Remark: Very toxic for fish
- Additional ecological information:
  General notes:
  Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
  Do not allow product to reach ground water, water course or sewage system.
  Danger to drinking water if even small quantities leak into the ground.
  Also poisonous for fish and plankton in water bodies.
  Very toxic for aquatic organisms

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
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number
ADR, IMDG, IATA 1145

14.2 UN proper shipping name
ADR 1145 CYCLOHEXANE, solution
IMDG, IATA CYCLOHEXANE, solution

14.3 Transport hazard class(es)
ADR

- Class 3 Flammable liquids.
- Label 3

IMDG, IATA

- Class 3 Flammable liquids.
- Label 3

14.4 Packing group
ADR, IMDG, IATA II

14.5 Environmental hazards:
- Marine pollutant: No
- Special marking (ADR): Symbol (fish and tree)

14.6 Special precautions for user
- Danger code (Kemler): Warning: Flammable liquids.
- EMS Number: F-E,S-D

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

Transport/Additional information:
ADR
- Limited quantities (LQ) LQ4
- Transport category 2
- Tunnel restriction code D1E
SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 57
· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

* SECTION 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.

· Relevant phrases
  - H225 Highly flammable liquid and vapour.
  - H304 May be fatal if swallowed and enters airways.
  - H315 Causes skin irritation.
  - H336 May cause drowsiness or dizziness.
  - H400 Very toxic to aquatic life.
  - H410 Very toxic to aquatic life with long lasting effects.

· Abbreviations and acronyms:
  - Flam. Liq. 2: Flammable liquids – Category 2
  - Acute Tox. 4: Acute toxicity – Category 4
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
  - Asp. Tox. 1: Aspiration hazard – Category 1
  - Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
  - Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

* Data compared to the previous version altered.