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

· Product identifier
· Trade name: GC Fuji PLUS Liquid
· Application of the substance / the preparation: Auxiliary for dental technology
· Details of the supplier of the safety data sheet
· Manufacturer/Supplier:
  GC EUROPE N.V.
  Interleuvenlaan 33
  B-3001 Leuven
  Tel. +32/(0)16/74.10.00
  Fax +32/(0)16/40.26.84
· Information department: Regulatory affairs

2 Composition/information on ingredients

· Chemical characterization: Mixtures
· Description:
  Mixture of the substances listed below with nonhazardous additions.
  Mixture: consisting of the following components.
· Dangerous components:

<table>
<thead>
<tr>
<th>CAS</th>
<th>Substance Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>868-77-9</td>
<td>2-hydroxyethyl methacrylate (HEMA)</td>
<td>25-35%</td>
</tr>
<tr>
<td>9003-01-4</td>
<td>Polyacrylic acid</td>
<td>20-30%</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>Distilled water</td>
<td>20-30%</td>
</tr>
<tr>
<td>72869-86-4</td>
<td>Urethane Dimethacrylate (UDMA)</td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>

· Additional information: For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

· Classification of the substance or mixture
· Classification according to Directive 67/548/EEC or Directive 1999/45/EC

  Irritant

  Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.
· Information concerning particular hazards for human and environment:
  The product has to be labelled due to the calculation procedure of international guidelines.
· Classification system:
  The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
Trade name: GC Fuji PLUS Liquid

- Label elements
- Labelling according to EU guidelines:
The product has been classified and marked in accordance with directives on hazardous materials.
- Code letter and hazard designation of product:
  Irritant
- Hazard-determining components of labelling:
  2-hydroxyethyl methacrylate (HEMA)
- Risk phrases:
  Irritating to eyes, respiratory system and skin.
  May cause sensitization by skin contact.
- Safety phrases:
  Keep out of the reach of children.
  Do not breathe gas/fumes/vapour/spray.
  Avoid contact with skin and eyes.
  Wear suitable gloves.
  If swallowed, seek medical advice immediately and show this container or label.
  Dispose of this material and its container at hazardous or special waste collection point
- Classification system:
  NFPA ratings (scale 0 - 4)
  Health = 1
  Fire = 1
  Reactivity = 0
  HMIS-ratings (scale 0 - 4)
  Health = 1
  Fire = 1
  Reactivity = 0

4 First aid measures

- After inhalation:
  Supply fresh air and to be sure 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.
  Immediately rinse with water.
- After eye contact:
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:
  If symptoms persist consult doctor.

5 Firefighting measures

- Suitable extinguishing agents:
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**: Not required.
- **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, sawdust). Ensure adequate ventilation.
- **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

- **Handling**:
  - **Precautions for safe handling**: Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
  - **Information about protection against explosions and fires**: No special measures required.
- **Storage**:
  - **Requirements to be met by storerooms and receptacles**: No special requirements.
  - **Information about storage in one common storage facility**: Not required.
  - **Further information about storage conditions**: Keep receptacle tightly sealed.
- **Specific end use(s)**: No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems**: No further data; see item 7.
- **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**: The lists that were valid during the creation were used as basis.
- **Personal protective equipment**:
  - **General protective and hygienic measures**: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
  - **Breathing equipment**: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
  - **Protection of hands**: Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Trade name: GC Fuji PLUS Liquid

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.

- **Eye protection:**
  Tightly sealed goggles

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### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Information</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>Fluid</td>
</tr>
<tr>
<td>Color</td>
<td>Light yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH-value</td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>Undetermined</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>205°C (401 °F)</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>97°C (207 °F)</td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous):</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Ignition temperature</strong></td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Auto igniting</strong></td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td><strong>Danger of explosion:</strong></td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td><strong>Explosion limits</strong></td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Vapor pressure at 20°C (68 °F):</strong></td>
<td>23 hPa (17 mm Hg)</td>
</tr>
<tr>
<td><strong>Density</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with Water:</strong></td>
<td>Not miscible or difficult to mix.</td>
</tr>
</tbody>
</table>
Trade name: GC Fuji PLUS Liquid

- Segregation coefficient (n-octanol/water): Not determined.
- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- Solvent content:
  - Organic solvents: 0.0 %
  - Water: 25.0 %
- Solids content: 55.0 %
- Other information: No further relevant information available.

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Acute toxicity:
  - Primary irritant effect:
    - on the skin: Irritant to skin and mucous membranes.
    - on the eye: Irritating effect.
  - Sensitization: Sensitization possible through skin contact.
- Additional toxicological information:
  The product shows the following dangers according to internally approved calculation methods for preparations:
  Irritant

12 Ecological information

- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Additional ecological information:
- General notes:
  - Water hazard class 1 (Self-assessment): slightly hazardous for water
  - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- Waste treatment methods
- Recommendation:
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 06/05/2012
Reviewed on 06/05/2012

Trade name: GC Fuji PLUS Liquid

(Contd. of page 5)

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

* 14 Transport information

- UN-Number
  - DOT, ADR, ADN, IMDG, IATA Void
- UN proper shipping name
  - DOT, ADR, ADN, IMDG, IATA Void
- Transport hazard class(es)
  - DOT, ADR, ADN, IMDG, IATA Void
  - Class Void
- Packing group
  - DOT, ADR, IMDG, IATA Void
- Environmental hazards:
  - Marine pollutant: No
- Special precautions for user Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

15 Regulatory information

- Sara
  - Section 355 (extremely hazardous substances): None of the ingredient is listed.
  - Section 313 (Specific toxic chemical listings): None of the ingredients is listed.
  - TSCA (Toxic Substances Control Act): All ingredients are listed.
- Proposition 65
  - Chemicals known to cause cancer: None of the ingredients is listed.
  - Chemicals known to cause reproductive toxicity for females: None of the ingredients is listed.
  - Chemicals known to cause reproductive toxicity for males: None of the ingredients is listed.
  - Chemicals known to cause developmental toxicity: None of the ingredients is listed.
- Cancersogenity categories
  - EPA (Environmental Protection Agency) None of the ingredients is listed.
### Material Safety Data Sheet

**Trade name: GC Fuji PLUS Liquid**

<table>
<thead>
<tr>
<th><strong>IARC (International Agency for Research on Cancer)</strong></th>
<th>9003-01-4 Polyacrylic acid</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>NTP (National Toxicology Program)</strong></th>
<th>None of the ingredients is listed.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>TLV (Threshold Limit Value established by ACGIH)</strong></th>
<th>None of the ingredients is listed.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>MAK (German Maximum Workplace Concentration)</strong></th>
<th>None of the ingredients is listed.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>NIOSH-Ca (National Institute for Occupational Safety and Health)</strong></th>
<th>None of the ingredients is listed.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>OSHA-Ca (Occupational Safety &amp; Health Administration)</strong></th>
<th>None of the ingredients is listed.</th>
</tr>
</thead>
</table>

**Product related hazard informations:**
The product has been classified and marked in accordance with directives on hazardous materials.

**Hazard symbols:**
Irritant

**Hazard-determining components of labelling:**
2-hydroxyethyl methacrylate (HEMA)

**Risk phrases:**
Irritating to eyes, respiratory system and skin.
May cause sensitization by skin contact.

**Safety phrases:**
Keep out of the reach of children.
Do not breathe gas/fumes/vapour/spray.
Avoid contact with skin and eyes.
Wear suitable gloves.
If swallowed, seek medical advice immediately and show this container or label.
Dispose of this material and its container at hazardous or special waste collection point

### 16 Other information

- **Department issuing MSDS:** Regulatory affairs
- **Contact:** regulatory@gceurope.com
- **Data compared to the previous version altered.**

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USA