1 Identification

- Product identifier
  - Trade name: PANAVIA F 2.0 ; OXYGUARD II
  - Article number: CA089-O

- Relevant identified uses of the substance or mixture and uses advised against
  - No further relevant information available.

- Application of the substance / the mixture
  - Dental material for curing promotion and surface protection

- Details of the supplier of the safety data sheet
  - Manufacturer:
    Kuraray Noritake Dental Inc.
    1621 Sakazu, Kurashiki, Okayama 710-0801, Japan
  - Contact information:
    Kuraray America, Inc.
    33 Maiden Lane, 6th Floor, New York, NY 10038 U.S.A.
    Tel: 800-879-1676
    Fax: 888-700-5200
    Website: www.kuraraydental.com
  - Emergency telephone number:
    For chemical emergency spill, leak, fire, exposure or accident
    Call CHEMTREC day and night
    Within USA and Canada: 1-800-424-9300 CCN706984 or
    +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

- Classification of the substance or mixture
  - The product is not classified according to the Globally Harmonized System (GHS).

- Label elements
  - GHS label elements Void
  - Hazard pictograms Void
  - Signal word Void
  - Hazard statements Void

3 Composition/information on ingredients

- Chemical characterization: Mixtures
  - Description: Mixture of substances listed below with nonhazardous additions.

- Dangerous components:
  - 56-81-5 glycerol 50-70% w/w

- Other ingredients:
  - Polyethylene glycol
  - Catalysts
  - Accelerators
  - Dyes

4 First-aid measures

- Description of first aid measures
  - General information: No special measures required.
  - After inhalation: Supply fresh air; consult doctor in case of complaints.
  - After skin contact: Generally the product does not irritate the skin.
  - After eye contact: Rinse opened eye for several minutes under running water.

(Contd. on page 2)
5 Fire-fighting measures

- Extinguishing media
  - Suitable extinguishing agents:
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.
  - Special hazards arising from the substance or mixture No further relevant information available.
  - Advice for firefighters
    Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures See Section 8.
- Environmental precautions:
  Dilute with plenty of water.
  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).
- Reference to other sections
  No dangerous substances are released.
  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 No special measures required.
  - Information about protection against explosions and fires No special measures required.
  - Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles: Store in a refrigerator (2-8°C).
    - Information about storage in one common storage facility:
      Store away from oxidizing agents.
      Store away from reducing agents.
  - Further information about storage conditions:
    - Keep receptacle tightly sealed.
    - Store in cool, dry conditions in well sealed receptacles.
    - Protect from heat and direct sunlight.
  - 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.
Control parameters

Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Component</th>
<th>EL Long-term value</th>
<th>EV Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>56-81-5 glycerol</td>
<td>10* 3** mg/m³</td>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

*mist; **mist, respirable

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

Exposure controls

Personal protective equipment:

General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed.

Breathing equipment: Not required.

Protection of hands:
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.

Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:
- Form: Gel
- Color: Green
- Odor: Odorless
- Odor threshold: Not determined.

pH-value: Not applicable.

Change in condition
- Melting point/Melting range: 18.2 ºC (glycerol)
- Boiling point/Boiling range: 290.0 ºC (glycerol)

Flash point: 177 ºC (glycerol)

Flammability (solid, gaseous): Not applicable.

Ignition temperature: 393ºC (glycerol)

Decomposition temperature: Not determined

Auto igniting: Not determined

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:
- Lower: 0.9 Vol % (glycerol)
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- Upper:
  - Oxidizing properties: Not applicable.
  - Vapor pressure: 0.1 hPa (20°C, glycerol)

- Density:
  - Relative density: Not determined
  - Vapor density: Not applicable.
  - Evaporation rate: Not determined

- Solubility in / Miscibility with Water: Fully miscible.

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

- Viscosity:
  - Dynamic: Not determined
  - Kinematic: Not determined
  - Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
  - Thermal decomposition / conditions to be avoided:
    - No decomposition if used and stored according to specifications.
  - Possibility of hazardous reactions: No dangerous reactions known.
  - Conditions to avoid: No further relevant information available.
  - Incompatible materials: No further relevant information available.
  - Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
    - Primary irritant effect:
      - on the skin: No irritant effect.
      - on the eye: No irritating effect.
    - Sensitization: No sensitizing effects known.
  - Additional toxicological information:

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    - None of the ingredients is listed.
  - NTP (National Toxicology Program)
    - None of the ingredients is listed.

12 Ecological information

- Toxicity:
  - 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.
  - Mobility in soil: No further relevant information available.
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· 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.
  · Results of PBT and vPvB assessment
    · PBT: Not applicable.
    · vPvB: Not applicable.
  · Other adverse effects: No further relevant information available.

13 Disposal considerations
· Waste treatment methods
  · Recommendation: Smaller quantities can be disposed of with household waste.
· Uncleaned packagings:
  · Recommendation: Disposal must be made according to official regulations.
  · Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information
· UN-Number
  · DOT, TDG, ADN, IMDG, IATA: Void
· UN proper shipping name
  · DOT, ADN, IMDG, IATA: Void
  · TDG: Void
· Transport hazard class(es)
  · DOT, TDG, ADN, IMDG, IATA: Void
  · Class: Void
· Packing group
  · DOT, TDG, IMDG, IATA: Void
· Environmental hazards:
  · Marine pollutant: No
· Special precautions for user
  · Not applicable.
· Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
  · Not applicable.
· UN "Model Regulation": Void

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.
  · SARA 311/312: See Section 2 for the information on physical and health hazards.
  · TSCA (Toxic Substances Control Act):
    All ingredients are listed.
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(Contd. of page 5)

- **Canadian substance listings:**
  - **Canadian Domestic Substances List (DSL)**
    
    All ingredients are listed.
  
  - **Canadian Ingredient Disclosure list (limit 0.1%)**
    
    None of the ingredients is listed.
  
  - **Canadian Ingredient Disclosure list (limit 1%)**
    
    None of the ingredients is 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.

  - * Data compared to the previous version altered.