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

1.1 Product identifier
- Trade name: PANAVIA F 2.0 ; PASTE B (TC, White, Light, Opaque)
- Article number: 089-PB
- 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
  GHS07
  Acute Tox. 4 H302 Harmful if swallowed.

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: GHS07
- Signal word: Warning
- Hazard-determining components of labelling:
  sodium fluoride
- Hazard statements: H302 Harmful if swallowed.
- Precautionary statements: P264 Wash thoroughly after handling.
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.

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Toxicological information</th>
</tr>
</thead>
<tbody>
<tr>
<td>7681-49-4</td>
<td>231-667-8</td>
<td>Acute Tox 3, H301; Skin Irrit. 2, H315; Eye Irrit. 2, H319</td>
</tr>
</tbody>
</table>

<10%

- **Dangerous components:**
  - sodium fluoride

- **Other ingredients:**
  - Hydrophobic aromatic dimethacrylate
  - Hydrophobic aliphatic dimethacrylate
  - Hydrophilic aliphatic dimethacrylate
  - Silanated barium glass filler
  - Catalysts
  - Accelerators
  - Pigments

- **Additional information:** EUH032: Contact with acids liberates very toxic gas. (sodium fluoride)

SECTION 4: First aid measures

4.1 Description of first aid measures
General information:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **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.
- **After swallowing:** Call for a doctor immediately.

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, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
5.2 Special hazards arising from the substance or mixture
No further relevant information available.

5.3 Advice for firefighters
Protective equipment:
- Mouth respiratory protective device.
- Wear fully protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Mount respiratory protective device.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:
Dispose contaminated material as waste according to item 13.

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
Prevent formation of dust.

7.2 Conditions for safe storage, including any incompatibilities
Storage:
- Requirements to be met by storeroms and receptacles: Store in a refrigerator (2-8 °C).
- Information about storage in one common storage facility:
  Do not store together with acids.
  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>Chemical</th>
<th>WEL Long-term value: 2.5 mg/m³ as F</th>
</tr>
</thead>
<tbody>
<tr>
<td>7681-49-4 sodium fluoride</td>
<td></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:
  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 skin.
  Avoid contact with the eyes.
### Safety data sheet  
**according to 1907/2006/EC, Article 31**

**Trade name:** PANAVIA F 2.0 ; PASTE B (TC, White, Light, Opaque)

- **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:**  
  Neoprene 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.

- **Eye protection:** Safety glasses

### SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>9.1 Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
</tr>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Form: Pasty</td>
</tr>
<tr>
<td>Colour: Coloured</td>
</tr>
<tr>
<td>Odour: Odourless</td>
</tr>
<tr>
<td>Odour threshold: Not determined</td>
</tr>
<tr>
<td>Important information on protection of health and environment, and on safety: Not determined</td>
</tr>
<tr>
<td>pH-value: Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range: 1012 °C (sodium fluoride)</td>
</tr>
<tr>
<td>Boiling point/Boiling range: 1704 °C (sodium fluoride)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flash point: Not determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (solid, gaseous): Not determined</td>
</tr>
<tr>
<td>Ignition temperature: Not determined</td>
</tr>
<tr>
<td>Decomposition temperature: Not determined</td>
</tr>
<tr>
<td>Self-igniting: Not determined</td>
</tr>
<tr>
<td>Danger of explosion: Product does not present an explosion hazard.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Explosion limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower: Not determined</td>
</tr>
<tr>
<td>Upper: Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oxidising properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not determined</td>
</tr>
</tbody>
</table>

| Vapour pressure: Not determined |

<table>
<thead>
<tr>
<th>Density: 2.0 g/cm³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative density: Not determined</td>
</tr>
<tr>
<td>Vapour density: Not determined</td>
</tr>
</tbody>
</table>
Evaporation rate Not determined

Solubility in / Miscibility with water: Insoluble.

Partition coefficient (n-octanol/water): Not determined

Viscosity: Not determined
Dynamic: Not determined
Kinematic: Not determined

Solvent separation test: Not determined
Water: Not determined
VOC (EC) Not determined

Solids content: Not determined
9.2 Other information Not determined

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:
7681-49-4 sodium fluoride

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>44 mg/kg (mouse)</td>
<td>52 mg/kg (rat)</td>
</tr>
</tbody>
</table>

Primary irritant effect:
Skin corrosion/irritation Based on available data, the classification criteria are not met.
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 (carcinogenicity, mutagenicity and toxicity for reproduction)
Germ cell mutagenicity Based on available data, the classification criteria are not met.
Carcinogenicity 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 Based on available data, the classification criteria are not met.
STOT-repeated exposure Based on available data, the classification criteria are not met.
Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity: No further relevant information available.
12.2 Persistence and degradability No further relevant information available.
12.3 Bioaccumulative potential 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, ADN, IMDG, IATA Void

14.2 UN proper shipping name
ADR, ADN, IMDG, IATA Void

14.3 Transport hazard class(es)
ADR, ADN, IMDG, IATA Void

14.4 Packing group
ADR, IMDG, IATA Void

14.5 Environmental hazards:
Marine pollutant: No

14.6 Special precautions for user
Not applicable.

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

UN "Model Regulation": Void

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No further relevant information available.

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
H301 Toxic if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Abbreviations and acronyms:

- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- CLP: Classification, Labelling and Packaging
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- EINECS: European Inventory of Existing Commercial Chemical Substances
- WEL: Workplace Exposure Limit
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- STOT: Specific target organ toxicity
- 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
- IBC: International Bulk Chemical
- Acute Tox. 3: Acute toxicity – Category 3
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

* Data compared to the previous version altered.