### **SAFETY DATA SHEETS**

### This SDS packet was issued with item:

070413120

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

070413112 070413138 070413146 070413153 070413161 070413179 074575700 074575718 074575726 074575759 074575767 074575775



Printing date 05/08/2012 Reviewed on 04/01/2012

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

· Product identifier

· Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

· Article number: US181

- · Application of the substance / the preparation Resin-based dental adhesive cement
- · 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

#### 2 Composition/information on ingredients

- · Chemical characterization: Single Component
- · Description: Mixture of substances listed below with nonhazardous additions.

| · Dangerous components: |                                    |                      |     |  |  |
|-------------------------|------------------------------------|----------------------|-----|--|--|
| 1565-94-2               | bisphenol A diglycidylmethacrylate | <b>♦</b> H315; H319  | <8% |  |  |
| 7681-49-4               | sodium fluoride                    | ♦ H301; ♦ H315; H319 | <5% |  |  |
| 109-16-0                | triethylene glycol dimethacrylate  | ♦ H315; H319; H335   | <3% |  |  |

#### · Other ingredients:

10-Methacryloyloxydecyl dihydrogen phosphate

Hydrophobic aromatic dimethacrylate

Hydrophobic aliphatic dimethacrylate

Silanated barium glass filler

Silanated colloidal silica

dl-Camphorquinone

**Initiators** 

Accelerators

Catalysts

Pigments Others

3 Hazards identification

· Classification of the substance or mixture



GHS07

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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



Harmful

Harmful if swallowed.

Contact with acids liberates toxic gas.

(Contd. on page 2)



Reviewed on 04/01/2012 Printing date 05/08/2012

Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

(Contd. of page 1)

· 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.

- · Label elements
- · GHS label elements

The product is classified and labelled according to the Globally Harmonized System (GHS).

- · Hazard pictograms GHS07
- · Signal word Warning
- · Hazard-determining components of labelling:

sodium fluoride

· Hazard statements

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eve irritation.

· Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P362 Take off contaminated clothing and wash before reuse.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 2Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



2 Health = 2 Fire = 0

#### 4 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: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Immediately call a 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.

(Contd. on page 3)



Printing date 05/08/2012 Reviewed on 04/01/2012

Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

(Contd. of page 2)

· Protective equipment:

Wear fully protective suit.

Mouth respiratory protective device.

#### **6 Accidental release measures**

· Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- $\cdot$  Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

· 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 Prevent formation of dust.
- · Information about protection against explosions and fires: No special measures required.
- ·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.

Do not store together with acids.

 $\cdot \ Further \ information \ about \ storage \ conditions:$ 

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.
- · Components with limit values that require monitoring at the workplace:

#### 7681-49-4 sodium fluoride

PEL 2.5 mg/m³ as F REL 2.5 mg/m³ as F TLV 2.5 mg/m³ as F, BEI

- · 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.

Wash hands before breaks and at the end of work.

· 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.

(Contd. on page 4)



Printing date 05/08/2012 Reviewed on 04/01/2012

Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

(Contd. of page 3)

#### · 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.

· Eye protection: Not required.

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| · General Information<br>· Appearance:      |   |
|---|---|
| Form:                                       | Pasty   |
| Color:                                      | Colored                                       |
| · Odor:                                     | Odorless                                      |
| · pH-value:                                 | Not applicable                                |
| · Change in condition                       |   |
| Melting point/Melting range:                | 1012 °C (sodium fluoride)                     |
| Boiling point/Boiling range:                | 1704°C (3099 °F)                              |
| · Flash point:                              | Not applicable.                               |
| · Ignition temperature:                     | Not applicable                                |
| · Danger of explosion:                      | Product does not present an explosion hazard. |
| · Explosion limits:                         |   |
| Lower:                                      | Not applicable                                |
| Upper:                                      | Not applicable                                |
| · Vapor pressure:                           | Not applicable                                |
| · Density:                                  | 1.8 g/cm <sup>3</sup> (15.021 lbs/gal)        |
| Vapour density                              | Not applicable                                |
| · Solubility in / Miscibility with          |   |
| Water:                                      | Insoluble.                                    |
| · Segregation coefficient (n-octonol/water) | : Not applicable                              |
| Other information                           | No further relevant information available.    |

### 10 Stability and reactivity

· Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

(Contd. on page 5)



Printing date 05/08/2012 Reviewed on 04/01/2012

Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

(Contd. of page 4)

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

#### 11 Toxicological information

- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:

#### 7681-49-4 sodium fluoride

Oral LD50 44 mg/kg (mouse) 52 mg/kg (rat)

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

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

#### 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.

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

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|     |      |         |       |     |

· 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

· Class Void

(Contd. on page 6)



Reviewed on 04/01/2012 Printing date 05/08/2012

Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

(Contd. of page 5) · 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. · UN "Model Regulation":

### 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.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

7681-49-4 sodium fluoride

A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

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.

· Version: 1

(Contd. on page 7)



Printing date 05/08/2012 Reviewed on 04/01/2012

Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

(Contd. of page 6)

#### · Relevant phrases

Not applicable

H301 Toxic if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

USA



Printing date 05/08/2012 Reviewed on 04/01/2012

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

· Product identifier

· Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

· Article number: US181

- · Application of the substance / the preparation Resin-based dental adhesive cement
- · 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

#### 2 Composition/information on ingredients

- · Chemical characterization: Single Component
- · Description: Mixture of substances listed below with nonhazardous additions.

| · Dangerous components: |                                    |                      |     |  |  |
|-------------------------|------------------------------------|----------------------|-----|--|--|
| 1565-94-2               | bisphenol A diglycidylmethacrylate | <b>♦</b> H315; H319  | <8% |  |  |
| 7681-49-4               | sodium fluoride                    | ♦ H301; ♦ H315; H319 | <5% |  |  |
| 109-16-0                | triethylene glycol dimethacrylate  | ♦ H315; H319; H335   | <3% |  |  |

#### · Other ingredients:

10-Methacryloyloxydecyl dihydrogen phosphate

Hydrophobic aromatic dimethacrylate

Hydrophobic aliphatic dimethacrylate

Silanated barium glass filler

Silanated colloidal silica

dl-Camphorquinone

**Initiators** 

Accelerators

Catalysts

Pigments Others

3 Hazards identification

· Classification of the substance or mixture



GHS07

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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



Harmful

Harmful if swallowed.

Contact with acids liberates toxic gas.

(Contd. on page 2)



Reviewed on 04/01/2012 Printing date 05/08/2012

Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

(Contd. of page 1)

· 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.

- · Label elements
- · GHS label elements

The product is classified and labelled according to the Globally Harmonized System (GHS).

- · Hazard pictograms GHS07
- · Signal word Warning
- · Hazard-determining components of labelling:

sodium fluoride

· Hazard statements

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eve irritation.

· Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P362 Take off contaminated clothing and wash before reuse.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 2Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



2 Health = 2 Fire = 0

#### 4 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: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Immediately call a 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.

(Contd. on page 3)



Printing date 05/08/2012 Reviewed on 04/01/2012

Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

(Contd. of page 2)

· Protective equipment:

Wear fully protective suit.

Mouth respiratory protective device.

#### **6 Accidental release measures**

· Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- $\cdot$  Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

· 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 Prevent formation of dust.
- · Information about protection against explosions and fires: No special measures required.
- ·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.

Do not store together with acids.

 $\cdot \ Further \ information \ about \ storage \ conditions:$ 

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.
- · Components with limit values that require monitoring at the workplace:

#### 7681-49-4 sodium fluoride

PEL 2.5 mg/m³ as F REL 2.5 mg/m³ as F TLV 2.5 mg/m³ as F, BEI

- · 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.

Wash hands before breaks and at the end of work.

· 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.

(Contd. on page 4)



Printing date 05/08/2012 Reviewed on 04/01/2012

Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

(Contd. of page 3)

#### · 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.

· Eye protection: Not required.

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|   |        |       |        | <br>0000 |

| · General Information<br>· Appearance:      |   |
|---|---|
| Form:                                       | Pasty   |
| Color:                                      | Colored                                       |
| · Odor:                                     | Odorless                                      |
| · pH-value:                                 | Not applicable                                |
| · Change in condition                       |   |
| Melting point/Melting range:                | 1012 °C (sodium fluoride)                     |
| Boiling point/Boiling range:                | 1704°C (3099 °F)                              |
| · Flash point:                              | Not applicable.                               |
| · Ignition temperature:                     | Not applicable                                |
| · Danger of explosion:                      | Product does not present an explosion hazard. |
| · Explosion limits:                         |   |
| Lower:                                      | Not applicable                                |
| Upper:                                      | Not applicable                                |
| · Vapor pressure:                           | Not applicable                                |
| · Density:                                  | 1.8 g/cm <sup>3</sup> (15.021 lbs/gal)        |
| Vapour density                              | Not applicable                                |
| · Solubility in / Miscibility with          |   |
| Water:                                      | Insoluble.                                    |
| · Segregation coefficient (n-octonol/water) | : Not applicable                              |
| Other information                           | No further relevant information available.    |

### 10 Stability and reactivity

· Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

(Contd. on page 5)



Printing date 05/08/2012 Reviewed on 04/01/2012

Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

(Contd. of page 4)

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

#### 11 Toxicological information

- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:

#### 7681-49-4 sodium fluoride

Oral LD50 44 mg/kg (mouse) 52 mg/kg (rat)

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

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

#### 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.

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

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|-----|------|---------|-------|-----|
|     |      |         |       |     |

· 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

· Class Void

(Contd. on page 6)



Reviewed on 04/01/2012 Printing date 05/08/2012

Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

(Contd. of page 5) · 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. · UN "Model Regulation":

### 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.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

7681-49-4 sodium fluoride

A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

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.

· Version: 1

(Contd. on page 7)



Printing date 05/08/2012 Reviewed on 04/01/2012

Trade name: PANAVIA SA CEMENT Automix; PASTE A & B

(Contd. of page 6)

#### · Relevant phrases

Not applicable

H301 Toxic if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

USA