SAFETY DATA SHEETS

This SDS packet was issued with item:

075219530

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

75219530 75219548 75219555 75219563

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).

075219548 075219555 075219563 075229703 075229711 075229729 075229737 075229745



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

1 Identification

· Product identifier

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

· Article number: CA089-PB

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

No further relevant information available.

- · Application of the substance / the mixture 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

· 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



Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

- · Label elements
- · GHS label elements

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

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

sodium fluoride

Hazard statements

H302 Harmful if swallowed.

Precautionary statements

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

- · Hazard-determining components of labeling: sodium fluoride
- Other hazards Not applicable

3 Composition/information on ingredients

· Chemical characterization: Substances None

(Contd. on page 2)



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

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

(Contd. of page 1)

· Chemical characterization: Mixtures

• **Description:** Mixture of substances listed below with nonhazardous additions.

Dangerous components:

7681-49-4 sodium fluoride

Acute Toxicity (Oral) - Category 3, H301; **()** Skin Irritation - Category 2, H315;

<10% w/w

Eye Irritation - Category 2A, H319

Other ingredients:

Hydrophobic aromatic dimethacrylate

Hydrophobic aliphatic dimethacrylate

Hydrophilic aliphatic dimethacrylate

Silanated barium glass filler

Catalysts

Accelerators

Pigments

4 First-aid measures

- 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: Immediately call a doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

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.

- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment:

Mouth respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures See Section 8.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 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.



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

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

(Contd. of page 2)

7 Handling and storage

- Handling:
- Precautions for safe handling Prevent formation of dust.
- 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:

Do not store together with acids.

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:

7681-49-4 sodium fluoride

EL Long-term value: 2.5 mg/m³ as F

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

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:

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.

(Contd. on page 4)



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

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

(Contd. of page 3)

· 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.

9 Physical and chemical properties	
Information on basic physical and chemical p	oroperties
General Information	n oper ties
· Appearance:	
Form:	Pasty
Color:	Colored
· Odor:	Odorless
Odor threshold:	Not determined
Important information on protection of healt	
environment, and on safety.	Not determined
· pH-value:	Not applicable.
· Change in condition	
Melting point/Melting range:	1012 °C (sodium fluoride)
Boiling point/Boiling range:	1704 °C (sodium fluoride)
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not determined
· Ignition temperature:	Not applicable.
· Decomposition temperature:	Not determined
· Auto igniting:	Not determined
· Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not applicable.
Upper:	Not applicable.
Oxidizing properties	Not determined
· Vapor pressure:	Not applicable.
Density:	2.0 g/cm ³
Relative density	Not determined
Vapor density	Not applicable.
· Evaporation rate	Not determined
· Solubility in / Miscibility with	
Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not applicable.
Viscosity:	Not determined
Dynamic:	Not determined
· Kinematic:	Not determined
Solvent separation test	Not determined
· Water:	Not determined
· Solids content:	Not determined
Other information	No further relevant information available.



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

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

(Contd. of page 4)

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:
- 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

- · 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.
- 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.



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

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

(Contd. of page 5)

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.

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		
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	ı 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.

- · SARA 311/312: See Section 2 for the information on physical and health hazards.
- TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · 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.

(Contd. on page 7)



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

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

(Contd. of page 6)

· Canadian Ingredient Disclosure list (limit 1%)

All ingredients are 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.

CA



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

1 Identification

Product identifier

Trade name: PANAVIA F 2.0; ED PRIMER II Liquid A

· Article number: CA070-A

· 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 tooth surface conditioning
- · 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



Skin Irritation - Category 2 H315 Causes skin irritation.

Eye Irritation - Category 2A H319 Causes serious eye irritation.

Skin Sensitizer - Category 1 H317 May cause an allergic skin reaction.

- · Label elements
- · GHS label elements

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

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

2-hydroxyethyl methacrylate

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

· Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 If on skin: Wash with plenty of water.

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).

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

(Contd. on page 2)



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

Trade name: PANAVIA F 2.0; ED PRIMER II Liquid A

(Contd. of page 1)

P337+P313

If eye irritation persists: Get medical advice/attention.

P501

Dispose of contents/container in accordance with local/regional/national/international

regulations.

3 Composition/information on ingredients

· Chemical characterization: Substances None

· Chemical characterization: Mixtures

• **Description:** Mixture of substances listed below with nonhazardous additions.

Dangerous components:

868-77-9 2-hydroxyethyl methacrylate

25-50% w/w

Skin Irritation - Category 2, H315; Eye Irritation - Category 2A, H319; Skin Sensitizer - Category 1, H317

Other ingredients:

10-Methacryloyloxydecyl dihydrogen phosphate

N-Methacryloyl-5-aminosalicylic acid

Water

Accelerators

4 First-aid measures

- · Description of 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.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Do not induce vomiting; immediately call for medical help.

If symptoms persist consult doctor.

- Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

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.

- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

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.

(Contd. on page 3)



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

Trade name: PANAVIA F 2.0; ED PRIMER II Liquid A

(Contd. of page 2)

· 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.
- · 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:

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.
- · 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.

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. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

(Contd. on page 4)



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

Trade name: PANAVIA F 2.0; ED PRIMER II Liquid A

(Contd. of page 3)

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

9 Physical and chemical properties

· Information on basic physical and	chemical properties
General Information	
Appearance:	
Form:	Liquid
Color:	Transparent
· Odor:	Odorless
· pH-value:	Not applicable.
· Change in condition	
Melting point/Melting range:	-12 °C (2-hydroxyethyl methacrylate)
Boiling point/Boiling range:	205 °C (2-hydroxyethyl methacrylate)
· Flash point:	97 °C (2-hydroxyethyl methacrylate)
· Ignition temperature:	Not applicable.
Decomposition temperature:	Not determined
Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not applicable.
Upper:	Not applicable.
Oxidizing properties	Not determined
· Vapor pressure:	Not applicable.
Density:	1.1 g/cm ³
· Relative density	Not determined
Vapor density	Not applicable.
Evaporation rate	Not determined
· Solubility in / Miscibility with	
Water:	Partly miscible.
Partition coefficient (n-octanol/wat	ter): Not applicable.
· Viscosity:	Not determined
Other information	No further relevant information available.



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

Trade name: PANAVIA F 2.0; ED PRIMER II Liquid A

(Contd. of page 4)

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:
- LD/LC50 values that are relevant for classification:

868-77-9 2-hydroxyethyl methacrylate

Oral LD50 4680 mg/kg (guinea pig) 3275 mg/kg (mouse) 5050 mg/kg (rat)

- 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:

İrritant

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.
- 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.

(Contd. on page 6)



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

Trade name: PANAVIA F 2.0; ED PRIMER II Liquid A

(Contd. of page 5)

· Other adverse effects No further relevant information available.

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.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

Void	
Void	
Void	
Void	
Void	
No	
Not applicable.	
x II of	
Not applicable.	
	Void Void Void Void No 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.

- · SARA 311/312: See Section 2 for the information on physical and health hazards.
- · TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · 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.

(Contd. on page 7)



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

Trade name: PANAVIA F 2.0; ED PRIMER II Liquid A

(Contd. of page 6)

· Canadian Ingredient Disclosure list (limit 1%)

868-77-9 2-hydroxyethyl methacrylate

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.

CA



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

1 Identification

Product identifier

Trade name: PANAVIA F 2.0; ED PRIMER II Liquid B

· Article number: CA070-B

· 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 tooth surface conditioning
- 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: Void

Other ingredients:

N-Methacryloyl-5-aminosalicylic acid

Water Catalysts Accelerators

4 First-aid measures

- Description of first aid measures
- · 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: If symptoms persist consult doctor.

(Contd. on page 2)



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

Trade name: PANAVIA F 2.0; ED PRIMER II Liquid B

(Contd. of page 1)

- Information for doctor:
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

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.

- 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.
- 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.

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.
- · 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: Not required.
- · 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:

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.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

· Breathing equipment: Not required.

(Contd. on page 3)



Printing date 05/22/2018 Version 3 Reviewed on 05/22/2018

Trade name: PANAVIA F 2.0; ED PRIMER II Liquid B

(Contd. of page 2)

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.

· Eve protection: Goggles recommended during refilling.

Physical and chemical properties		
General Information		
Appearance:	T:: I	
Form: Color:	Liquid Transparent	
· Odor:	Odorless	
· pH-value:	Not applicable.	
· Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	Undetermined.	
· Flash point:	Not applicable.	
Ignition temperature:	Not applicable.	
Decomposition temperature:	Not determined	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not applicable.	
Upper:	Not applicable.	
Oxidizing properties	Not determined	
· Vapor pressure:	Not applicable.	
· Density:	1.0 g/cm ³	
Relative density	Not determined	
Vapor density	Not applicable.	
Evaporation rate	Not determined	
· Solubility in / Miscibility with	· Solubility in / Miscibility with	
Water:	Fully miscible.	
· Partition coefficient (n-octanol/wat	· Partition coefficient (n-octanol/water): Not applicable.	
· Viscosity:	Not determined	
· Other information	No further relevant information available.	



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Trade name: PANAVIA F 2.0; ED PRIMER II Liquid B

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10 Stability and reactivity

- Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used 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:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- · 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.
- Additional ecological information:
- · General notes: Generally not hazardous for water
- 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.

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Trade name: PANAVIA F 2.0; ED PRIMER II Liquid B

(Contd. of page 4)

· Recommended cleansing agent: Water, if necessary with cleansing agents.

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		
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	
MARPOL73/78 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.

- · 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.



Printing date 05/23/2018 Version 3 Reviewed on 05/23/2018

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).

- $\cdot \ Label \ elements$
- · 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:

Polyethyleneglycol

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)



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Trade name: PANAVIA F 2.0; OXYGUARD II

(Contd. of page 1)

- · After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

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.

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Trade name: PANAVIA F 2.0; OXYGUARD II

(Contd. of page 2)

· Control parameters

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

56-81-5 glycerol

EL Long-term value: 10* 3** mg/m³

*mist; **mist, resirable

EV Long-term value: 10 mg/m³

- · 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 °C (glycerol)
Boiling point/Boiling range:	290.0 °C (glycerol)
· Flash point:	177 °C (glycerol)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	393°C (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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Trade name: PANAVIA F 2.0; OXYGUARD II

		(Contd. of page
Upper:	Not applicable.	
Oxidizing properties	Not determined	
· 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:	Not determined	
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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Trade name: PANAVIA F 2.0; OXYGUARD II

(Contd. of page 4)

- · 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.

4 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	
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
MARPOL73/78 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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Trade name: PANAVIA F 2.0; OXYGUARD II

(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.

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