

## SAFETY DATA SHEETS

**This SDS packet was issued with item:**

075229729

**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).**

075219530 075219548 075219555 075219563 075229703 075229711 075229737 075229745

**Safety Data Sheet**  
**According to HPR**

Printing date 04/13/2018

Version 3

Reviewed on 04/13/2018

**1 Identification**

- **Product identifier**
- **Trade name:** CLEARFIL CERAMIC PRIMER
- **Article number:** CA117
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Adhesive, dental ceramic
- **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**



GHS02 Flame

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.



GHS08 Health hazard

Carcinogenicity - Category 1A H350 May cause cancer.

- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS02, GHS08
- **Signal word** Danger
- **Hazard-determining components of labeling:**  
ethanol
- **Hazard statements**  
H225 Highly flammable liquid and vapour.  
H350 May cause cancer.
- **Precautionary statements**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P240 Ground and bond container and receiving equipment.  
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.  
P242 Use non-sparking tools.

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Trade name: CLEARFIL CERAMIC PRIMER

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- P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
 P403+P235 Store in a well-ventilated place. Keep cool.  
 P405 Store locked up.  
 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:**

|           |                                                                                                                                                                                                                                   |             |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 64-17-5   | ethanol                                                                                                                                                                                                                           | 50-100% w/w |
|           | ⚠ Flammable Liquids - Category 2, H225; ⚠ Carcinogenicity - Category 1A, H350                                                                                                                                                     |             |
| 2530-85-0 | 3-trimethoxysilylpropyl methacrylate                                                                                                                                                                                              | 2.5-10% w/w |
|           | ⚠ Acute Toxicity (Dermal) – Category 3, H311; ⚠ Skin Irritation - Category 2, H315; Eye Irritation - Category 2A, H319; Specific Target Organ Toxicity - Single Exposure - Category 3, H335; Flammable Liquids - Category 4, H227 |             |

- **Other ingredients:** 10-Methacryloyloxydecyl dihydrogen phosphate

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then 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:**  
CO<sub>2</sub>, 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**  
Wear protective equipment. Keep unprotected persons away.

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- **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).  
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.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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:****64-17-5 ethanol**

|    |                                                      |
|----|------------------------------------------------------|
| EL | Short-term value: 1000 ppm                           |
| EV | Long-term value: 1,900 mg/m <sup>3</sup> , 1,000 ppm |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **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**

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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 through 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: | Colorless    |
| Odor:  | Alcohol-like |

|             |                |
|-------------|----------------|
| · pH-value: | Not determined |
|-------------|----------------|

**· Change in condition**

|                              |                     |
|------------------------------|---------------------|
| Melting point/Melting range: | -114.5 °C (ethanol) |
| Boiling point/Boiling range: | 78 °C (ethanol)     |

|                |                |
|----------------|----------------|
| · Flash point: | 13°C (ethanol) |
|----------------|----------------|

|                         |                    |
|-------------------------|--------------------|
| · Ignition temperature: | 425.0 °C (ethanol) |
|-------------------------|--------------------|

|                              |                |
|------------------------------|----------------|
| · Decomposition temperature: | Not determined |
|------------------------------|----------------|

|                        |                                                                                            |
|------------------------|--------------------------------------------------------------------------------------------|
| · Danger of explosion: | Product is not explosive. However, formation of explosive air/vapor mixtures are possible. |
|------------------------|--------------------------------------------------------------------------------------------|

**· Explosion limits:**

|        |                      |
|--------|----------------------|
| Lower: | 3.5 Vol % (ethanol)  |
| Upper: | 15.0 Vol % (ethanol) |

|                        |                |
|------------------------|----------------|
| · Oxidizing properties | Not determined |
|------------------------|----------------|

|                   |                          |
|-------------------|--------------------------|
| · Vapor pressure: | 59.0 hPa (20°C, ethanol) |
|-------------------|--------------------------|

|                    |                                        |
|--------------------|----------------------------------------|
| · Density:         | 1.1 g/cm <sup>3</sup>                  |
| · Relative density | Not determined                         |
| · Vapor density    | 1.6 g/cm <sup>3</sup> (ethanol, air=1) |
| · Evaporation rate | Not determined                         |

**· Solubility in / Miscibility with**

|        |                  |
|--------|------------------|
| Water: | Partly miscible. |
|--------|------------------|

|                                            |                 |
|--------------------------------------------|-----------------|
| · Partition coefficient (n-octanol/water): | -0.32 (ethanol) |
|--------------------------------------------|-----------------|

|              |                |
|--------------|----------------|
| · Viscosity: | Not determined |
|--------------|----------------|

|                     |                                            |
|---------------------|--------------------------------------------|
| · Other information | No further relevant information available. |
|---------------------|--------------------------------------------|

**10 Stability and reactivity**

|              |                                            |
|--------------|--------------------------------------------|
| · Reactivity | No further relevant information available. |
|--------------|--------------------------------------------|

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- **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:**

### 64-17-5 ethanol

|            |          |                                        |
|------------|----------|----------------------------------------|
| Oral       | LD50     | 3450 mg/kg (mouse)<br>7060 mg/kg (rat) |
| Inhalative | LC50/4 h | 20000 mg/l (rat)                       |
|            | LD50     | 3600 mg/kg (rat - intraperitoneal)     |

### 2530-85-0 3-trimethoxysilylpropyl methacrylate

|        |      |                    |
|--------|------|--------------------|
| Oral   | LD50 | 22600 mg/kg (rat)  |
| Dermal | LD50 | 500 mg/kg (rabbit) |

- **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.
- **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.

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**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.

**14 Transport information**

- |                                                                                     |                                                 |
|-------------------------------------------------------------------------------------|-------------------------------------------------|
| · <b>UN-Number</b>                                                                  |                                                 |
| · <b>DOT</b>                                                                        | UN1170                                          |
| · <b>TDG, IMDG, IATA</b>                                                            | 1170                                            |
| · <b>UN proper shipping name</b>                                                    |                                                 |
| · <b>DOT</b>                                                                        | Ethanol, mixture                                |
| · <b>TDG</b>                                                                        | 1170 Ethanol (Ethyl alcohol), mixture           |
| · <b>IMDG</b>                                                                       | ETHANOL (ETHYL ALCOHOL), mixture                |
| · <b>IATA</b>                                                                       | ETHANOL, mixture                                |
| · <b>Transport hazard class(es)</b>                                                 |                                                 |
| · <b>DOT</b>                                                                        |                                                 |
|  |                                                 |
| · <b>Class</b>                                                                      | 3 Flammable liquids                             |
| · <b>Label</b>                                                                      | 3                                               |
| · <b>TDG, IMDG, IATA</b>                                                            |                                                 |
|  |                                                 |
| · <b>Class</b>                                                                      | 3 Flammable liquids                             |
| · <b>Label</b>                                                                      | 3                                               |
| · <b>Packing group</b>                                                              |                                                 |
| · <b>DOT, TDG, IMDG, IATA</b>                                                       | II                                              |
| · <b>Environmental hazards:</b>                                                     |                                                 |
| · <b>Marine pollutant:</b>                                                          | No                                              |
| · <b>Special precautions for user</b>                                               | Warning: Flammable liquids                      |
| · <b>Danger code (Kemler):</b>                                                      | 33                                              |
| · <b>EMS Number:</b>                                                                | F-E,S-D                                         |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>    | Not applicable.                                 |
| · <b>UN "Model Regulation":</b>                                                     | UN1170, Ethanol (Ethyl alcohol), mixture, 3, II |

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**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%)**

64-17-5 | ethanol

· **Canadian Ingredient Disclosure list (limit 1%)**

2530-85-0 | 3-trimethoxysilylpropyl 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.**

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**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](http://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**



GHS07

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.

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**Trade name: PANA VIA F 2.0 ; ED PRIMER II Liquid A**P337+P313  
P501

If eye irritation persists: Get medical advice/attention.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

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**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<br>⚠ Skin Irritation - Category 2, H315; Eye Irritation - Category 2A, H319; Skin Sensitizer - Category 1, H317 | 25-50% w/w |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------|------------|

**· 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:**  
CO<sub>2</sub>, 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.

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**Trade name: PANA VIA F 2.0 ; ED PRIMER II Liquid A**

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- **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.

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Trade name: PANA VIA F 2.0 ; ED PRIMER II Liquid A

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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 through 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 <sup>3</sup> |
| Relative density | Not determined        |
| Vapor density    | Not applicable.       |
| Evaporation rate | Not determined        |

- **Solubility in / Miscibility with**

Water: Partly miscible.

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

- **Viscosity:** Not determined

- **Other information** No further relevant information available.

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Trade name: PANA VIA F 2.0 ; ED PRIMER II Liquid A

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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 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:  
Irritant

- **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.

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CA

## Safety Data Sheet According to HPR

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Trade name: PANA VIA F 2.0 ; ED PRIMER II Liquid A

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· **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.

### 14 Transport information

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

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CA

# Safety Data Sheet

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**Trade name: PANA VIA F 2.0 ; ED PRIMER II Liquid A**

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**· 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

**Safety Data Sheet**  
**According to HPR**

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.

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**Trade name: PANA VIA F 2.0 ; ED PRIMER II Liquid B**

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- **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:**  
CO<sub>2</sub>, 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.

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# Safety Data Sheet

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Trade name: PANA VIA 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 through 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:  | Liquid      |
| Color: | 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 <sup>3</sup> |
| 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

- **Other information** No further relevant information available.

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**Safety Data Sheet**  
**According to HPR**

Printing date 05/22/2018

Version 3

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**Trade name: PANA VIA 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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# Safety Data Sheet

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Trade name: PANA VIA F 2.0 ; ED PRIMER II Liquid B

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· 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                                                |                 |
| · 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.

· 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.

CA

**Safety Data Sheet**  
**According to HPR**

Printing date 05/22/2018

Version 3

Reviewed on 05/22/2018

**1 Identification**

- **Product identifier**
- **Trade name:** PANAVIA F 2.0 ; PASTE A
- **Article number:** CA089-PA
- **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 Detanl 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](http://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
- **Other hazards** Not applicable

**3 Composition/information on ingredients**

- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.
- **Dangerous components:** Void
- **Other ingredients:**  
10-Methacryloyloxydecyl dihydrogen phosphate  
Hydrophobic aromatic dimethacrylate  
Hydrophobic aliphatic dimethacrylate  
Hydrophilic aliphatic dimethacrylate  
Silanated silica filler  
Silanated colloidal silica  
dl-Camphorquinone  
Catalysts  
Initiators

CA

(Contd. on page 2)

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**Trade name: PANA VIA F 2.0 ; PASTE A**

(Contd. of page 1)

**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.
- **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:**  
CO<sub>2</sub>, 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:** No special measures required.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **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.

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# Safety Data Sheet

## According to HPR

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Trade name: PANA VIA F 2.0 ; PASTE A

(Contd. of page 2)

- **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 through 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

- |                                                                       |                                               |
|-----------------------------------------------------------------------|-----------------------------------------------|
| · <b>Information on basic physical and chemical properties</b>        |                                               |
| · <b>General Information</b>                                          |                                               |
| · <b>Appearance:</b>                                                  |                                               |
| Form:                                                                 | Pasty                                         |
| Color:                                                                | Colored                                       |
| Odor:                                                                 | Odorless                                      |
| · <b>pH-value:</b>                                                    | Not applicable.                               |
| · <b>Change in condition</b>                                          |                                               |
| Melting point/Melting range:                                          | Undetermined.                                 |
| Boiling point/Boiling range:                                          | Undetermined.                                 |
| · <b>Flash point:</b>                                                 | Not applicable.                               |
| · <b>Ignition temperature:</b>                                        | Not applicable.                               |
| · <b>Danger of explosion:</b>                                         | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>                                            |                                               |
| Lower:                                                                | Not applicable.                               |
| Upper:                                                                | Not applicable.                               |
| · <b>Vapor pressure:</b>                                              | Not applicable.                               |
| · <b>Density:</b>                                                     | 2.2 g/cm <sup>3</sup>                         |
| · <b>Vapor density</b>                                                | Not applicable.                               |
| · <b>Solubility in / Miscibility with</b>                             |                                               |
| Water:                                                                | Insoluble.                                    |
| · <b>Partition coefficient (n-octanol/water):</b> Not applicable.     |                                               |
| · <b>Other information</b> No further relevant information available. |                                               |

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(Contd. on page 4)

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Reviewed on 05/22/2018

**Trade name: PANA VIA F 2.0 ; PASTE A**

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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 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:**  
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.

(Contd. on page 5)

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# Safety Data Sheet

## According to HPR

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Trade name: PANA VIA F 2.0 ; PASTE A

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

### 14 Transport information

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

### 15 Regulatory information

- **Sara**
- **Section 355 (extremely hazardous substances):**  
All ingredients are listed.
- **Section 313 (Specific toxic chemical listings):**  
All ingredients are 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%)**  
All ingredients are listed.
- **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.**

**Safety Data Sheet**  
**According to HPR**

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**

GHS07

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

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CA

**Safety Data Sheet**  
**According to HPR**

Printing date 05/22/2018

Version 3

Reviewed on 05/22/2018

**Trade name: PANA VIA 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                                                                                                      | <10% w/w |
|           | ☠ Acute Toxicity (Oral) - Category 3, H301; ⚠ Skin Irritation - Category 2, H315; 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:**  
CO<sub>2</sub>, 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.

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**Safety Data Sheet**  
**According to HPR**

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**Trade name: PANA VIA 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/m <sup>3</sup><br>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.

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# Safety Data Sheet

## According to HPR

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

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- **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 properties**
- **General Information**
- **Appearance:**
  - Form: Pasty
  - Color: Colored
- **Odor:** Odorless
- **Odor threshold:** Not determined
- **Important information on protection of health and 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<sup>3</sup>
- **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.

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# Safety Data Sheet

## According to HPR

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Trade name: PANA VIA 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:**

|                                                               |      |                  |
|---------------------------------------------------------------|------|------------------|
| · <b>LD/LC50 values that are relevant for classification:</b> |      |                  |
| 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**

|                                                             |
|-------------------------------------------------------------|
| · <b>IARC (International Agency for Research on Cancer)</b> |
| None of the ingredients is listed.                          |

|                                            |
|--------------------------------------------|
| · <b>NTP (National Toxicology Program)</b> |
| 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.

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## Safety Data Sheet According to HPR

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

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### 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.

### 14 Transport information

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

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CA

# Safety Data Sheet

## According to HPR

Printing date 05/22/2018

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Reviewed on 05/22/2018

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

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· **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



**Safety Data Sheet**  
**According to HPR**

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).
- **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.

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**Safety Data Sheet**  
**According to HPR**

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**Trade name: PANA VIA 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:**  
CO<sub>2</sub>, 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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# Safety Data Sheet

## According to HPR

Printing date 05/23/2018

Version 3

Reviewed on 05/23/2018

Trade name: PANA VIA F 2.0 ; OXYGUARD II

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### Control parameters

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

##### 56-81-5 glycerol

EL Long-term value: 10\* 3\*\* mg/m<sup>3</sup>  
\*mist; \*\*mist, respirable

EV Long-term value: 10 mg/m<sup>3</sup>

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 through 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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**Safety Data Sheet**  
**According to HPR**

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**Trade name: PANA VIA F 2.0 ; OXYGUARD II**

(Contd. of page 3)

|                                                   |                                            |
|---------------------------------------------------|--------------------------------------------|
| <b>Upper:</b>                                     | Not applicable.                            |
| · <b>Oxidizing properties</b>                     | Not determined                             |
| · <b>Vapor pressure:</b>                          | 0.1 hPa (20°C, glycerol)                   |
| · <b>Density:</b>                                 |                                            |
| <b>Relative density</b>                           | Not determined                             |
| <b>Vapor density</b>                              | Not applicable.                            |
| <b>Evaporation rate</b>                           | Not determined                             |
| · <b>Solubility in / Miscibility with Water:</b>  | Fully miscible.                            |
| · <b>Partition coefficient (n-octanol/water):</b> | Not applicable.                            |
| · <b>Viscosity:</b>                               | Not determined                             |
| · <b>Dynamic:</b>                                 | Not determined                             |
| · <b>Kinematic:</b>                               | Not determined                             |
| · <b>Other information</b>                        | 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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# Safety Data Sheet

## According to HPR

Printing date 05/23/2018

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Reviewed on 05/23/2018

Trade name: PANA VIA F 2.0 ; OXYGUARD II

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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

- |                                                                                  |                 |
|----------------------------------------------------------------------------------|-----------------|
| · <b>UN-Number</b>                                                               |                 |
| · <b>DOT, TDG, ADN, IMDG, IATA</b>                                               | Void            |
| · <b>UN proper shipping name</b>                                                 |                 |
| · <b>DOT, ADN, IMDG, IATA</b>                                                    | Void            |
| · <b>TDG</b>                                                                     | Void            |
| · <b>Transport hazard class(es)</b>                                              |                 |
| · <b>DOT, TDG, ADN, IMDG, IATA</b>                                               |                 |
| · <b>Class</b>                                                                   | Void            |
| · <b>Packing group</b>                                                           |                 |
| · <b>DOT, TDG, IMDG, IATA</b>                                                    | Void            |
| · <b>Environmental hazards:</b>                                                  |                 |
| · <b>Marine pollutant:</b>                                                       | No              |
| · <b>Special precautions for user</b>                                            | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>                                                  | 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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## Safety Data Sheet According to HPR

Printing date 05/23/2018

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**Trade name: PANA VIA F 2.0 ; OXYGUARD II**

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· **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.**

CA

**Safety Data Sheet**  
**According to HPR**

Printing date 05/25/2018

Version 3

Reviewed on 05/25/2018

**1 Identification**

- **Product identifier**
- **Trade name:** ALLOY PRIMER
- **Article number:** CA054
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Adhesive, dental metal
- **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](http://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**



GHS02 Flame

Flammable Liquids - Category 2

H225 Highly flammable liquid and vapour.



GHS07

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure -  
Category 3

H336 May cause drowsiness or dizziness.

- **Label elements**

- **GHS label elements**

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

- **Hazard pictograms** GHS02, GHS07

- **Signal word** Danger

- **Hazard-determining components of labeling:**

acetone

- **Hazard statements**

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

- **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

(Contd. on page 2)

CA

# Safety Data Sheet

## According to HPR

Printing date 05/25/2018

Version 3

Reviewed on 05/25/2018

Trade name: ALLOY PRIMER

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- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### 3 Composition/information on ingredients

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

- **Dangerous components:**

|         |                                                                                                                                                                                                                                                                                                                   |             |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 67-64-1 | acetone                                                                                                                                                                                                                                                                                                           | 50-100% w/w |
|         |  Flammable Liquids - Category 2, H225;  Eye Irritation - Category 2A, H319; Specific Target Organ Toxicity - Single Exposure - Category 3, H336 |             |

- **Other ingredients:**  
 6-(4-Vinylbenzyl-N-propyl)amino-1,3,5-triazine-2,4-dithione  
 10-Methacryloyloxydecyl dihydrogen phosphate

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**  
 Supply fresh air; consult doctor in case of complaints.  
 In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Generally the product does not irritate the skin.
- **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.

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**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).  
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:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location (2-25°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:****67-64-1 acetone**

|    |                           |
|----|---------------------------|
| EL | Short-term value: 500 ppm |
|    | Long-term value: 250 ppm  |

- **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.
- **Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**  
Neoprene gloves

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Solvent resistant gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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.

Butyl rubber, BR

Neoprene gloves

- **Penetration time of glove material**

The exact break through 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:  | Acetone-like |

|           |                |
|-----------|----------------|
| pH-value: | Not determined |
|-----------|----------------|

- **Change in condition**

Melting point/Melting range: -94.7 °C (acetone)

Boiling point/Boiling range: 55 °C (acetone)

|              |                  |
|--------------|------------------|
| Flash point: | -19 °C (acetone) |
|--------------|------------------|

|                       |                    |
|-----------------------|--------------------|
| Ignition temperature: | 465.0 °C (acetone) |
|-----------------------|--------------------|

|                            |                |
|----------------------------|----------------|
| Decomposition temperature: | Not determined |
|----------------------------|----------------|

|                      |                                                                                            |
|----------------------|--------------------------------------------------------------------------------------------|
| Danger of explosion: | Product is not explosive. However, formation of explosive air/vapor mixtures are possible. |
|----------------------|--------------------------------------------------------------------------------------------|

- **Explosion limits:**

Lower: 2.6 Vol % (acetone)

Upper: 13.0 Vol % (acetone)

|                      |                |
|----------------------|----------------|
| Oxidizing properties | Not determined |
|----------------------|----------------|

|                          |                     |
|--------------------------|---------------------|
| Vapor pressure at 20 °C: | 233.0 hPa (acetone) |
|--------------------------|---------------------|

|          |                                  |
|----------|----------------------------------|
| Density: | 0.79 g/cm <sup>3</sup> (acetone) |
|----------|----------------------------------|

|                  |                |
|------------------|----------------|
| Relative density | Not determined |
|------------------|----------------|

|               |                                        |
|---------------|----------------------------------------|
| Vapor density | 2.0 g/cm <sup>3</sup> (acetone, air=1) |
|---------------|----------------------------------------|

|                  |                |
|------------------|----------------|
| Evaporation rate | Not determined |
|------------------|----------------|

- **Solubility in / Miscibility with**

Water: Partly miscible.

|                                          |                 |
|------------------------------------------|-----------------|
| Partition coefficient (n-octanol/water): | -0.24 (acetone) |
|------------------------------------------|-----------------|

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- **Viscosity:** 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:**

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

**67-64-1 acetone**

|        |      |                      |
|--------|------|----------------------|
| Oral   | LD50 | 5800 mg/kg (rat)     |
| Dermal | LD50 | 20000 mg/kg (rabbit) |

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:
- **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.

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**Trade name: ALLOY PRIMER**· **Other adverse effects** No further relevant information available.

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**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.

**14 Transport information**

- |                                                                                     |                                  |
|-------------------------------------------------------------------------------------|----------------------------------|
| · <b>UN-Number</b>                                                                  | UN1090                           |
| · <b>DOT</b>                                                                        | 1090                             |
| · <b>TDG, IMDG, IATA</b>                                                            |                                  |
| · <b>UN proper shipping name</b>                                                    | 1090 ACETONE, solution           |
| · <b>TDG</b>                                                                        | ACETONE, solution                |
| · <b>IMDG, IATA</b>                                                                 |                                  |
| · <b>Transport hazard class(es)</b>                                                 |                                  |
| · <b>DOT</b>                                                                        |                                  |
|  |                                  |
| · <b>Class</b>                                                                      | 3 Flammable liquids              |
| · <b>Label</b>                                                                      | 3                                |
| · <b>TDG, IMDG, IATA</b>                                                            |                                  |
|  |                                  |
| · <b>Class</b>                                                                      | 3 Flammable liquids              |
| · <b>Label</b>                                                                      | 3                                |
| · <b>Packing group</b>                                                              | II                               |
| · <b>DOT, TDG, IMDG, IATA</b>                                                       |                                  |
| · <b>Environmental hazards:</b>                                                     |                                  |
| · <b>Marine pollutant:</b>                                                          | No                               |
| · <b>Special precautions for user</b>                                               | Warning: Flammable liquids       |
| · <b>Danger code (Kemler):</b>                                                      | 33                               |
| · <b>EMS Number:</b>                                                                | F-E,S-D                          |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>    | Not applicable.                  |
| · <b>UN "Model Regulation":</b>                                                     | UN1090; ACETONE, solution; 3; II |

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\*

**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%)**

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.**

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**1 Identification**

- **Product identifier**
- **Trade name:** K-ETCHANT GEL
- **Article number:** CA021
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Dental etching composite
- **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](http://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**



GHS05 Corrosion

Skin Corrosion - Category 1B      H314 Causes severe skin burns and eye damage.  
Serious Eye Damage - Category 1      H318 Causes serious eye damage.

- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS05
- **Signal word** Danger
- **Hazard-determining components of labeling:**  
phosphoric acid
- **Hazard statements**  
H314 Causes severe skin burns and eye damage.
- **Precautionary statements**  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a poison center/doctor.  
P321 Specific treatment (see on this label).  
P363 Wash contaminated clothing before reuse.  
P405 Store locked up.

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Trade name: K-ETCHANT GEL

P501

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

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**3 Composition/information on ingredients**

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

· **Dangerous components:**

|           |                                                                                  |            |
|-----------|----------------------------------------------------------------------------------|------------|
| 7664-38-2 | phosphoric acid                                                                  | 25-50% w/w |
|           | ⚠ Skin Corrosion - Category 1B, H314; ⚠ Acute Toxicity (Oral) - Category 4, H302 |            |

· **Other ingredients:**

Colloidal silica  
Water  
Dyes

**4 First-aid measures**

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** 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. Then consult a doctor.
- **After swallowing:** Drink copious amounts of water and provide fresh air. 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:**  
CO<sub>2</sub>, 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.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralizing agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.

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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 cool location (2-25°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.

**7664-38-2 phosphoric acid**

|    |                                                                               |
|----|-------------------------------------------------------------------------------|
| EL | Short-term value: 3 mg/m <sup>3</sup><br>Long-term value: 1 mg/m <sup>3</sup> |
| EV | Short-term value: 3 mg/m <sup>3</sup><br>Long-term value: 1 mg/m <sup>3</sup> |

- **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.

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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 through 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:**

|               |          |
|---------------|----------|
| <b>Form:</b>  | Gel      |
| <b>Color:</b> | Red      |
| <b>Odor:</b>  | Odorless |

**pH-value:** 1.8**Change in condition**

|                                     |                           |
|-------------------------------------|---------------------------|
| <b>Melting point/Melting range:</b> | 42.4 °C (phosphoric acid) |
| <b>Boiling point/Boiling range:</b> | Not determined            |

**Flash point:** Not determined**Ignition temperature:** Not determined**Decomposition temperature:** Not determined**Danger of explosion:** Product does not present an explosion hazard.**Explosion limits:**

|               |                |
|---------------|----------------|
| <b>Lower:</b> | Not determined |
| <b>Upper:</b> | Not determined |

**Oxidizing properties** Not determined**Vapor pressure:** Not determined**Density:** 1.3 g/cm<sup>3</sup>**Relative density** Not determined**Vapor density** Not determined**Evaporation rate** Not determined**Solubility in / Miscibility with****Water:** Partly miscible.**Partition coefficient (n-octanol/water):** Not determined**Viscosity:** Not determined

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**· 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:**

**· LD/LC50 values that are relevant for classification:****7664-38-2 phosphoric acid**

|        |      |                                        |
|--------|------|----------------------------------------|
| Oral   | LD50 | 1250 mg/kg (mouse)<br>1250 mg/kg (rat) |
| Dermal | LD50 | 2740 mg/kg (rabbit)                    |

- **Primary irritant effect:**
  - **on the skin:** Caustic effect on skin and mucous membranes.
  - **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Corrosive  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
- **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.

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Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

· **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:**

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.

### 14 Transport information

· **UN-Number**

· **DOT**

UN1805

· **TDG, IMDG, IATA**

1805

· **UN proper shipping name**

· **DOT**

Phosphoric acid solution

· **TDG**

1805 Phosphoric acid solution

· **IMDG, IATA**

PHOSPHORIC ACID, SOLUTION

· **Transport hazard class(es)**

· **DOT**



· **Class**

8 Corrosive substances

· **Label**

8

· **TDG, IMDG, IATA**



· **Class**

8 Corrosive substances

· **Label**

8

· **Packing group**

· **DOT, TDG, IMDG, IATA**

III

· **Environmental hazards:**

· **Marine pollutant:**

No

· **Special precautions for user**

Warning: Corrosive substances

· **Danger code (Kemler):**

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|                                                                                  |                                          |
|----------------------------------------------------------------------------------|------------------------------------------|
| · <b>EMS Number:</b>                                                             | F-A,S-B                                  |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.                          |
| · <b>UN "Model Regulation":</b>                                                  | UN1805, Phosphoric acid solution, 8, III |

**15 Regulatory information**· **Sara**· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

7664-38-2 phosphoric acid

· **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%)**

7664-38-2 phosphoric acid

**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