

1 Identification

- **Product identifier**
- **Trade name:** PANAVIA F 2.0 ; PASTE B (TC, White, Light, Opaque)
- **Article number:** US089-PB
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Dental materials
- **Details of the supplier of the safety data sheet**
- **Manufacturer:**
Kuraray Noritake Dental Inc.
1621 Sakazu, Kurashiki,
Okayama 710-0801,
Japan
- **Supplier**
Kuraray America, Inc.
32 Old Slip, 7th Floor, New York,
NY 10005 U.S.A.
Tel: 800-879-1676
Website: www.kuraraydental.com
- **Emergency telephone number:**
CHEMTREC; day and night, within USA and Canada
1-800-424-9300 CCN706984 or +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Acute Toxicity - Oral 4 H302 Harmful if swallowed.
Skin Irritation 2 H315 Causes skin irritation.
Eye Irritation 2A H319 Causes serious eye irritation.
Carcinogenicity 2 H351 Suspected of causing cancer. Route of exposure: Inhalation.

Label elements**GHS label elements**

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

Hazard pictograms

GHS07 GHS08

Signal word Warning**Hazard-determining components of labeling:**

sodium fluoride
titanium dioxide

Hazard statements

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer. Route of exposure: Inhalation.

Precautionary statements

P280 Wear protective gloves / eye protection / face protection.
P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
P330 Rinse mouth.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 2)

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

(Contd. of page 1)

- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P321 Specific treatment (see on this label).
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Other hazards** Avoid breathing sanding dust / swarf.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

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

· **Dangerous components:**

7681-49-4	sodium fluoride	≤10%
	☠ Acute Toxicity - Oral 3, H301; ⚠ Skin Irritation 2, H315; Eye Irritation 2A, H319	
13463-67-7	titanium dioxide	<10%
	☠ Carcinogenicity 2, H351	

· **Other ingredients:**

- Silanated barium glass filler
- Hydrophobic aromatic dimethacrylate
- Hydrophobic aliphatic dimethacrylate
- Catalyst
- Accelerators
- Pigment

4 First-aid measures

- **Description of first aid measures**
- **General information:**
- Immediately remove any clothing soiled by the product.
- Avoid contact with eyes.
- Avoid contact with skin.
- **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. If symptoms persist, consult a doctor.
- **After swallowing:** Immediately call a doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
- No further relevant information available.

5 Fire-fighting measures

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

(Contd. on page 3)

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

(Contd. of page 2)

- **Advice for firefighters**
- **Protective equipment:** Wear fully protective suit.

* **6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**
Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
- **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 section 13.
Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways.
Vacuum or sweep material and place in a disposal container. Provide ventilation.
Use appropriate Personal Protective Equipment (PPE).
- **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**

- **Precautions for safe handling**
Open and handle receptacle with care.
Avoid contact with skin and eyes, Do not swallow. Avoid generating dust. Do not breathe dust/fume/gas/mist/vapors /spray.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **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**

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**

7681-49-4 sodium fluoride	
PEL	Long-term value: 2.5 mg/m ³ as F
REL	Long-term value: 2.5 mg/m ³ as F
TLV	Long-term value: 2.5 mg/m ³ as F, A4; BEI

(Contd. on page 4)

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

(Contd. of page 3)

13463-67-7 titanium dioxide

PEL	Long-term value: 15* mg/m ³ *total dust
REL	See Pocket Guide App. A
TLV	Long-term value: 0.2* 2.5** mg/m ³ resp. fraction, *nanoscale,**finescale, A3

Ingredients with biological limit values:

7681-49-4 sodium fluoride

BEI	2 mg/L Medium: urine Time: prior to shift Parameter: Fluoride (background, nonspecific)
	3 mg/L Medium: urine Time: end of shift Parameter: Fluoride (background, nonspecific)

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

· **Exposure controls**

· **Additional information about design of technical systems:** No further data; see section 7.

· **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.
- Store protective clothing separately.
- Avoid contact with the eyes and skin.

· **Breathing equipment:** Not required.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

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

(Contd. of page 4)

9 Physical and chemical properties

· Information on basic physical and chemical properties

- **Physical state** Solid
- **Color:** Colored
- **Odor:** Odorless
- **Odor threshold:** Not determined.
- **Melting point/Melting range:** 1012 °C (sodium fluoride)
- **Boiling point/Boiling range:** 1704 °C (sodium fluoride)
- **Flammability (solid, gaseous):** Not determined
- **Explosion limits:**
- **Lower:** Not determined.
- **Upper:** Not determined.
- **Flash point:** Not determined.
- **Auto ignition temperature:** Not determined
- **Decomposition temperature:** Not determined
- **pH-value:** Not determined.
- **Viscosity:** Not determined
- **Kinematic viscosity** Not determined
- **Dynamic:** Not determined
- **Solubility in / Miscibility with**
- **Water:** Soluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Vapor pressure:** Not determined.
- **Density:** 2.0 g/cm³
- **Relative density** Not determined
- **Relative vapor density** Not applicable.

· Other information

- **Important information on protection of health and environment, and on safety.** Not determined
- **Danger of explosion:** Product does not present an explosion hazard.
- **Solvent separation test** Not determined
- **Water:** Not determined
- **Change in condition**
- **Evaporation rate** Not determined

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:** Harmful if swallowed.

(Contd. on page 6)

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

(Contd. of page 5)

· LD/LC50 values that are relevant for classification:

7681-49-4 sodium fluoride

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

13463-67-7 titanium dioxide

Oral	LD50	>20,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>6.82 mg/l (rat)

- **on the skin:** Causes skin irritation.
- **on the eye:** Causes serious eye irritation.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Suspected of causing cancer. Route of exposure: Inhalation.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - single exposure**
Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - repeated exposure**
Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Subacute to chronic toxicity:**

· 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.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects**
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 7)

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

(Contd. of page 6)

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

14 Transport information

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

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **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):	
7681-49-4 sodium fluoride	ACTIVE
13463-67-7 titanium dioxide	ACTIVE

· Hazardous Air Pollutants
None of the ingredients is listed.

- **Proposition 65**

· Chemicals known to cause cancer:
None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:
None of the ingredients is listed.

(Contd. on page 8)

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

(Contd. of page 7)

· **Cancerogenity categories :**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

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.

· **Relevant phrases**

H301 Toxic if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H351 Suspected of causing cancer.

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 2

Fire = 0

Reactivity = 0

· **Abbreviations and acronyms:**

DOT: US Department of Transportation

ELINCS: European List of Notified Chemical Substances

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Acute Toxicity - Oral 3: Acute toxicity – Category 3

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Carcinogenicity 2: Carcinogenicity – Category 2

· *** Data compared to the previous version altered.**