

1 Identification

- **Product identifier**
- **Trade name:** PANAVIA 21 ; UNIVERSAL PASTE (EX, TC, OP)
- **Article number:** US050-PU
- **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**
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**



GHS08

- **Signal word** Warning
- **Hazard-determining components of labeling:**
titanium dioxide
- **Hazard statements**
H351 Suspected of causing cancer. Route of exposure: Inhalation.
- **Precautionary statements**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: 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.

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3 Composition/information on ingredients

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

· Dangerous components:

13463-67-7 titanium dioxide

 Carcinogenicity 2, H351 < 10%**· Other ingredients:**

Silanated barium glass filler
Hydrophobic aromatic dimethacrylate
Hydrophobic aliphatic dimethacrylate
Accelerator
Catalyst
Pigments

4 First-aid measures

- **Description of first aid measures**
- **General information:**
 - Avoid contact with eyes.
 - Avoid contact with skin.
- **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.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

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

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** See Section 8.
- **Environmental precautions:** No special measures required.
- **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.

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See Section 13 for disposal information.

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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:** 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****· Control parameters****· Components with limit values that require monitoring at the workplace:****13463-67-7 titanium dioxide**PEL Long-term value: 15* mg/m³

*total dust

REL See Pocket Guide App. A

TLV Long-term value: 0.2* 2.5** mg/m³
resp. fraction, *nanoscale, **finescale, A3**· 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:**

Wash hands before breaks and at the end of work.

Store protective clothing separately.

· Breathing equipment:

Suitable respiratory protective device recommended.

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:

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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- **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

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:** Not determined
- **Boiling point/Boiling range:** Not determined.
- **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:** Insoluble.
- **Partition coefficient (n-octanol/water):** Not determined
- **Vapor pressure:** Not determined
- **Density:** 1.9 g/cm³
- **Relative density** Not determined
- **Relative vapor density** Not determined

- **Other information**
- **Important information on protection of health and environment, and on safety.**
- **Danger of explosion:** Product does not present an explosion hazard.
- **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

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11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:

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:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **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)
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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:** Not hazardous for water.

13 Disposal considerations

- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information

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

15 Regulatory information

- 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):

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.

· Cancerogenity categories :**· EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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· **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

H351 Suspected of causing cancer.

· NFPA ratings (scale 0 - 4)



Health = 1

Fire = 0

Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 0

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

Carcinogenicity 2: Carcinogenicity – Category 2

· * Data compared to the previous version altered.