

## **SAFETY DATA SHEETS**

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

075217328

**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).**

075217336 075217377

## Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/09/2012 Reviewed on 04/01/2012

· **Product identifier**

· **Trade name:** PANAVIA 21 ; CATALYST PASTE (EX, TC, OP)

· **Article number:** US050-PC

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

· **Details of the supplier of the safety data sheet**

· **Manufacturer:**

Kuraray Noritake Dental Inc.

1621 Sakazu, Kurashiki, Okayama 710-0801,

Japan

· **Supplier:**

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)

· **Chemical characterization: Single Component**

· **Description:**

Monomer for dental resin materials

12-Methacryloyloxydodecylpyridinium bromide (>90wt%)

· **Dangerous components:** Void

· **Other ingredients:**

10-Methacryloyloxydecyl dihydrogen phosphate

Hydrophobic aromatic dimethacrylate

Hydrophobic aliphatic methacrylate

Silanated silica filler

Colloidal silica

Catalysts

Others

· **Classification of the substance or mixture**

The product is not classified according to the Globally Harmonized System (GHS).

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.

· **Information concerning particular hazards for human and environment:**

The product does not have to be labelled due to the calculation procedure of international guidelines.

· **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **Label elements**

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**

0

Health = 0

Fire = 0

Reactivity = 0

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## Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/09/2012 Reviewed on 04/01/2012

**Trade name: PANAVIA 21 ; CATALYST PASTE (EX, TC, OP)**

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· **HMIS-ratings (scale 0 - 4)**

REACTIVITY

0

0

0

Health = 0

Fire = 0

Reactivity = 0

- **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.
  
- **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.
- **Protective equipment:** No special measures required.
  
- **Personal precautions, protective equipment and emergency procedures** Not required.
- **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.
  
- **Handling:**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a refrigerator (2-8°C).
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.
  
- **Additional information about design of technical systems:** No further data; see item 7.
- **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.
- **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.

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## **Material Safety Data Sheet**

### **acc. to ISO/DIS 11014**

Printing date 02/09/2012 Reviewed on 04/01/2012

**Trade name: PANAVIA 21 ; CATALYST PASTE (EX, TC, OP)**

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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:** Not required.

· **General Information**

· **Appearance:**

**Form:** Pasty

**Color:** White

· **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

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

**Lower:** Not applicable

**Upper:** Not applicable

· **Vapor pressure:** Not applicable

· **Density:** 2.0 g/cm<sup>3</sup> (16.69 lbs/gal)

· **Vapour density** Not applicable

· **Solubility in / Miscibility with**

**Water:** Insoluble.

· **Segregation coefficient (n-octanol/water):** Not applicable

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

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

· **Incompatible materials:** No further relevant information available.

· **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

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## **Material Safety Data Sheet**

### **acc. to ISO/DIS 11014**

Printing date 02/09/2012 Reviewed on 04/01/2012

**Trade name: PANAVIA 21 ; CATALYST PASTE (EX, TC, OP)**

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· **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.

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Additional ecological information:**

· **General notes:** Generally not hazardous for water

· **Waste treatment methods**

· **Recommendation:** Smaller quantities can be disposed of with household waste.

· **Uncleaned packagings:**

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

· **UN-Number**

· **DOT, ADR, ADN, IMDG, IATA** Void

· **UN proper shipping name**

· **DOT, ADR, ADN, IMDG, IATA** Void

· **Transport hazard class(es)**

· **DOT, ADR, ADN, IMDG, IATA**

· **Class** Void

· **Packing group**

· **DOT, ADR, IMDG, IATA** Void

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user** Not applicable.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **UN "Model Regulation":** -

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## Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/09/2012 Reviewed on 04/01/2012

**Trade name: PANAVIA 21 ; CATALYST PASTE (EX, TC, OP)**

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· **Sara**

· **Section 355 (extremely hazardous substances):**

All ingredients are listed.

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

All ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

All ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

All ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

All ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

All ingredients are listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

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

All ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

All ingredients are listed.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Version: 4**

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## Material Safety Data Sheet

### acc. to ISO/DIS 11014

Printing date 02/09/2012 Reviewed on 04/01/2012

· **Product identifier**

· **Trade name:** PANAVIA 21 ; UNIVERSAL PASTE (EX, TC, OP)

· **Article number:** US050-PU

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

· **Details of the supplier of the safety data sheet**

· **Manufacturer:**

Kuraray Noritake Dental Inc.

1621 Sakazu, Kurashiki, Okayama 710-0801,

Japan

· **Supplier:**

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)

· **Chemical characterization: Single Component**

· **Description:**

Monomer for dental resin materials

12-Methacryloyloxydodecylpyridinium bromide (>90wt%)

· **Dangerous components:** Void

· **Other ingredients:**

Hydrophobic aromatic dimethacrylate

Hydrophobic aliphatic methacrylate

Hydrophilic aliphatic dimethacrylate

Silanated titanium oxide

Silanated barium glass filler

Catalysts

Accelerators

Pigments

Others

· **Classification of the substance or mixture**

The product is not classified according to the Globally Harmonized System (GHS).

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.

· **Information concerning particular hazards for human and environment:**

The product does not have to be labelled due to the calculation procedure of international guidelines.

· **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **Label elements**

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

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## Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/09/2012 Reviewed on 04/01/2012

**Trade name: PANAVIA 21 ; UNIVERSAL PASTE (EX, TC, OP)**

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· **Classification system:**

· **NFPA ratings (scale 0 - 4)**

**0**

Health = 0

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

REACTIVITY

0

0

0

Health = 0

Fire = 0

Reactivity = 0

· **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.

· **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.

· **Protective equipment:** No special measures required.

· **Personal precautions, protective equipment and emergency procedures** Not required.

· **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.

· **Handling:**

· **Precautions for safe handling** No special measures required.

· **Information about protection against explosions and fires:** No special measures required.

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store in a refrigerator (2-8°C).

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** None.

· **Specific end use(s)** No further relevant information available.

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

· **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.

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## Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/09/2012 Reviewed on 04/01/2012

Trade name: PANAVIA 21 ; UNIVERSAL PASTE (EX, TC, OP)

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· **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.

· **General Information**

· **Appearance:**



**Form:** Pasty  
**Color:** Colored  
· **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  
· **Danger of explosion:** Product does not present an explosion hazard.  
· **Explosion limits:**  
**Lower:** Not applicable  
**Upper:** Not applicable  
· **Vapor pressure:** Not applicable  
· **Density:** 1.9 g/cm<sup>3</sup> (15.856 lbs/gal)  
· **Vapour density** Not applicable  
· **Solubility in / Miscibility with**  
**Water:** Insoluble.  
· **Segregation coefficient (n-octanol/water):** Not applicable  
· **Other information** No further relevant information available.

· **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.  
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## Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/09/2012 Reviewed on 04/01/2012

**Trade name:** PANAVIA 21 ; UNIVERSAL PASTE (EX, TC, OP)

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

· **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.

· **Aquatic toxicity:** No further relevant information available.  
· **Persistence and degradability** No further relevant information available.  
· **Behavior in environmental systems:**  
· **Bioaccumulative potential** No further relevant information available.  
· **Additional ecological information:**  
· **General notes:** Generally not hazardous for water

· **Waste treatment methods**  
· **Recommendation:** Smaller quantities can be disposed of with household waste.  
· **Uncleaned packagings:**

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

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

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## Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/09/2012 Reviewed on 04/01/2012

**Trade name: PANAVIA 21 ; UNIVERSAL PASTE (EX, TC, OP)**

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- **UN "Model Regulation":** -
- **Sara**
- **Section 355 (extremely hazardous substances):**  
All ingredients are listed.
- **Section 313 (Specific toxic chemical listings):**  
All ingredients are listed.
- **TSCA (Toxic Substances Control Act):**  
All ingredients are listed.
- **Proposition 65**
- **Chemicals known to cause cancer:**  
All ingredients are listed.
- **Chemicals known to cause reproductive toxicity for females:**  
All ingredients are listed.
- **Chemicals known to cause reproductive toxicity for males:**  
All ingredients are listed.
- **Chemicals known to cause developmental toxicity:**  
All ingredients are listed.
- **Carcinogenity categories**
- **EPA (Environmental Protection Agency)**  
None of the ingredients is listed.
- **IARC (International Agency for Research on Cancer)**  
None of the ingredients is listed.
- **TLV (Threshold Limit Value established by ACGIH)**  
None of the ingredients is listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)**  
All ingredients are listed.
- **OSHA-Ca (Occupational Safety & Health Administration)**  
All ingredients are listed.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Version:** 4

**1 Identification**

- **Product identifier**
- **Trade name:** PANAVIA 21 ; CATALYST PASTE (EX, TC, OP)
- **Article number:** US050-PC
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Resin-based dental adhesive cement
- **Details of the supplier of the safety data sheet**
- **Manufacturer:**  
Kuraray Noritake Dental Inc.  
1621 Sakazu, Kurashiki, Okayama 710-0801,  
Japan
- **Contact information:**  
Kuraray America, Inc.  
33 Maiden Lane, 6th Floor, New York,  
NY 10038 U.S.A.  
Tel: 800-879-1676  
Fax: 888-700-5200  
Website: www.kuraraydental.com
- **Emergency telephone number:**  
For chemical emergency spill, leak, fire, exposure or accident  
Call CHEMTREC day and night  
Within USA and Canada: 1-800-424-9300 CCN706984 or  
+1 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The product is not classified according to the Globally Harmonized System (GHS).

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- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Other hazards**
- **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:** Void
- **Other ingredients:**  
10-Methacryloyloxydecyl dihydrogen phosphate  
Hydrophobic aromatic dimethacrylate  
Hydrophobic aliphatic dimethacrylate  
Silanated silica filler  
Colloidal silica  
Catalysts

US

(Contd. on page 2)

**Trade name: PANAVIA 21 ; CATALYST PASTE (EX, TC, OP)**

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**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** 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:** 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.

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US

Trade name: PANAVIA 21 ; CATALYST PASTE (EX, TC, OP)

(Contd. of page 2)

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

|        |          |
|--------|----------|
| Form:  | Pasty    |
| Color: | White    |
| Odor:  | Odorless |
- **pH-value:** Not determined
- **Change in condition**

|                              |                |
|------------------------------|----------------|
| Melting point/Melting range: | Not determined |
| Boiling point/Boiling range: | 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:**

|        |                |
|--------|----------------|
| Lower: | Not determined |
| Upper: | Not determined |
- **Oxidizing properties:** Not determined
- **Vapor pressure:** Not determined
- **Density:** 2.0 g/cm<sup>3</sup>
- **Relative density:** Not determined
- **Vapor density:** Not determined
- **Evaporation rate:** Not determined
- **Solubility in / Miscibility with Water:** Insoluble.
- **Partition coefficient (n-octanol/water):** Not determined.

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US

**Trade name: PANAVIA 21 ; CATALYST PASTE (EX, TC, OP)**

(Contd. of page 3)

- **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:**
- **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.

US

(Contd. on page 5)

**Trade name: PANAVIA 21 ; CATALYST PASTE (EX, TC, OP)**

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**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.

**14 Transport information**

|  |                 |
|--|-----------------|
| · <b>UN-Number</b>   |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void            |
| · <b>UN proper shipping name</b>   |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void            |
| · <b>Transport hazard class(es)</b>  |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   |                 |
| · <b>Class</b>   | Void            |
| · <b>Packing group</b>   |                 |
| · <b>DOT, ADR, 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**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

|  |                             |
|--|-----------------------------|
| · <b>Section 355 (extremely hazardous substances):</b>               |                             |
|  | All ingredients are listed. |
| · <b>Section 313 (Specific toxic chemical listings):</b>             |                             |
|  | All ingredients are listed. |
| · <b>TSCA (Toxic Substances Control Act):</b>                        |                             |
|  | All ingredients are listed. |
| · <b>Proposition 65</b>  |                             |
| · <b>Chemicals known to cause cancer:</b>                            |                             |
|  | All ingredients are listed. |
| · <b>Chemicals known to cause reproductive toxicity for females:</b> |                             |
|  | All ingredients are listed. |
| · <b>Chemicals known to cause reproductive toxicity for males:</b>   |                             |
|  | All ingredients are listed. |
| · <b>Chemicals known to cause developmental toxicity:</b>            |                             |
|  | All ingredients are listed. |

(Contd. on page 6)

US

**Trade name: PANAVIA 21 ; CATALYST PASTE (EX, TC, OP)**

(Contd. of page 5)

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

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

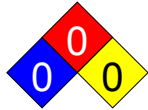
All ingredients are listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**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.

· **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 0  
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 0  
Fire = 0  
Reactivity = 0

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

US