

## **SAFETY DATA SHEETS**

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

075219563

**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 075229703 075229711 075229729 075229737 075229745

**1 Identification**

- **Product identifier**
- **Trade name:** PANAVIA F 2.0 ; PASTE B (TC, White, Light, Opaque)
- **Article number:** CA089-PB
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Resin-based dental adhesive cement
- **Details of the supplier of the safety data sheet**
- **Manufacturer:**  
Kuraray Noritake Dental Inc.  
1621 Sakazu, Kurashiki, Okayama 710-0801,  
Japan
- **Contact information:**  
Kuraray America, Inc.  
33 Maiden Lane, 6th Floor, New York,  
NY 10038 U.S.A.  
Tel: 800-879-1676  
Fax: 888-700-5200  
Website: www.kuraraydental.com
- **Emergency telephone number:**  
For chemical emergency spill, leak, fire, exposure or accident  
Call CHEMTREC day and night  
Within USA and Canada: 1-800-424-9300 CCN706984 or  
+1 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



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

- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS07
- **Signal word** Warning
- **Hazard-determining components of labeling:**  
sodium fluoride
- **Hazard statements**  
H302 Harmful if swallowed.
- **Precautionary statements**  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.  
P330 Rinse mouth.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Hazard-determining components of labeling:** sodium fluoride
- **Other hazards** Not applicable

**3 Composition/information on ingredients**

- **Chemical characterization:** Substances None

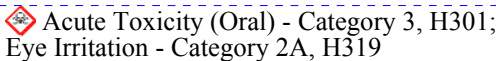
(Contd. on page 2)

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

(Contd. of page 1)

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

· **Dangerous components:**

7681-49-4	sodium fluoride	<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:**  
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:**  
Mouth respiratory protective device.  
Wear fully protective suit.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** See Section 8.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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(Contd. on page 3)

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

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**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**

<b>Components with limit values that require monitoring at the workplace:</b>	
<b>7681-49-4 sodium fluoride</b>	
EL	Long-term value: 2.5 mg/m <sup>3</sup> 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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Trade name: PANAVIA F 2.0 ; PASTE B (TC, White, Light, Opaque)

(Contd. of page 3)

- **Penetration time of glove material**  
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.

## 9 Physical and chemical properties

- **Information on basic physical and chemical 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

Printing date 05/22/2018

Version 3

Reviewed on 05/22/2018

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

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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:**

**7681-49-4 sodium fluoride**

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

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful

- **Carcinogenic categories**

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

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

**12 Ecological information**

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

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**Safety Data Sheet  
According to HPR**

Printing date 05/22/2018

Version 3

Reviewed on 05/22/2018

**Trade name: PANAVIA 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**

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, TDG, ADN, IMDG, IATA</b></li> </ul>	Void
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT, ADN, IMDG, IATA</b></li> <li>· <b>TDG</b></li> </ul>	Void Void
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT, TDG, ADN, IMDG, IATA</b></li> <li>· <b>Class</b></li> </ul>	Void
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, TDG, IMDG, IATA</b></li> </ul>	Void
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>	No
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	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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# Safety Data Sheet

## According to HPR

Printing date 05/22/2018

Version 3

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.

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**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



**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).

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- **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
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**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**

Printing date 05/23/2018

Version 3

Reviewed on 05/23/2018

**Trade name: PANAVIA F 2.0 ; OXYGUARD II**

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- **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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CA

Trade name: PANAVIA 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, resirableEV 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Goggles recommended during refilling.**9 Physical and chemical properties**

## · Information on basic physical and chemical properties

## · General Information

## · Appearance:

Form: Gel  
Color: Green

· Odor: Odorless

· Odor threshold: Not determined.

· pH-value: Not applicable.

## · Change in condition

Melting point/Melting range: 18.2 °C (glycerol)  
Boiling point/Boiling range: 290.0 °C (glycerol)

· Flash point: 177 °C (glycerol)

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 393°C (glycerol)

· Decomposition temperature: Not determined

· Auto igniting: Not determined

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

## · Explosion limits:

Lower: 0.9 Vol % (glycerol)

(Contd. on page 4)

**Trade name: PANAVIA 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.

(Contd. on page 5)

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

(Contd. of page 4)

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

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**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.

(Contd. on page 6)

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

(Contd. of page 5)

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**  
All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**  
None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**  
None of the ingredients is listed.

\* **16 Other information**

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

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