

**1 Identification**

- **Product identifier**
- **Trade name: Noritake Super Porcelain EX-3 : Powder Type**
- **Article number: CA825-PW**
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Dental porcelain
- **Details of the supplier of the safety data sheet**
- **Manufacturer:**  
Kuraray Noritake Dental Inc.  
300 Higashiyama, Miyoshi-cho,  
Miyoshi, Aichi, 470-0293  
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**



GHS08 Health hazard

- |   |  |
|---|--|
| Carcinogenicity - Category 1A                                   | H350 May cause cancer.   |
| Reproductive Toxicity - Category 2                              | H361 Suspected of damaging fertility or the unborn child.            |
| Specific Target Organ Toxicity - Repeated Exposure - Category 1 | H372 Causes damage to organs through prolonged or repeated exposure. |



GHS07

- |                              |   |
|------------------------------|---|
| 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, GHS08
- **Signal word** Danger
- **Hazard-determining components of labeling:**  
vanadium pentoxide  
nickel oxide
- **Hazard statements**  
H317 May cause an allergic skin reaction.  
H350 May cause cancer.  
H361 Suspected of damaging fertility or the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.

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**Precautionary statements**

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P314 Get medical advice/attention if you feel unwell.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P363 Wash contaminated clothing before reuse.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other hazards**

- Avoid breathing sanding dust / swarf.
- Dust generation.
- Particular danger of slipping on spilled product.

**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:**

|            |  |     |
|------------|--|-----|
| 1313-99-1  | nickel oxide<br>⚠ Carcinogenicity - Category 1A, H350; Specific Target Organ Toxicity - Repeated Exposure - Category 1, H372; ⚠ Eye Irritation - Category 2A, H319; Skin Sensitizer - Category 1, H317; Aquatic Chronic 4, H413  | <5% |
| 13463-67-7 | titanium dioxide<br>⚠ Carcinogenicity – Category 2, H351   | <1% |
| 1314-62-1  | vanadium pentoxide<br>⚠ Germ Cell Mutagenicity - Category 2, H341; Carcinogenicity – Category 2, H351; Reproductive Toxicity - Category 2, H361; Specific Target Organ Toxicity - Repeated Exposure - Category 1, H372; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Toxicity (Oral) - Category 4, H302; Acute Toxicity (Inhalation) - Category 4, H332; Specific Target Organ Toxicity - Single Exposure - Category 3, H335 | <1% |

**Other ingredients:**

- Potassium alumino silicate glass
- Pigments

**4 First-aid measures**

**Description of first aid measures**

- After inhalation:** Supply fresh air; consult doctor in case of complaints.
- After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- After eye contact:** Rinse opened eye for several minutes under running water.
- 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.

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· **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

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**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:** Product is not flammable
- **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:** See Section 12.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **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**  
Prevent formation of dust.  
Ensure good ventilation/exhaustion at the workplace.  
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:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store at room temperature.
- **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:**

**1313-99-1 nickel oxide**

|             |   |
|-------------|---|
| EL (Canada) | Long-term value: 0.05 mg/m <sup>3</sup><br>as Ni; ACGIH A1, IARC 1  |
| EV (Canada) | Long-term value: 0.2 mg/m <sup>3</sup><br>Inhalable fraction, as Ni |

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|                                     |  |
|-------------------------------------|--|
| <b>13463-67-7 titanium dioxide</b>  |  |
| EL (Canada)                         | Long-term value: 10* 3** mg/m <sup>3</sup><br>*total dust;**respirable fraction; IARC 2B |
| EV (Canada)                         | Long-term value: 10 mg/m <sup>3</sup><br>total dust                                      |
| <b>1314-62-1 vanadium pentoxide</b> |  |
| EL (Canada)                         | Long-term value: 0.05 mg/m <sup>3</sup><br>inhalable, IARC 2B                            |
| EV (Canada)                         | Long-term value: 0.05 mg/m <sup>3</sup><br>respirable dust and fume                      |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Do not inhale dust / smoke / mist.
- **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

- **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:** Safety glasses

**9 Physical and chemical properties**

|  |                 |
|--|-----------------|
| · <b>Information on basic physical and chemical properties</b> |                 |
| · <b>General Information</b>                                   |                 |
| · <b>Appearance:</b>   |                 |
| · <b>Form:</b>   | Powder          |
| · <b>Color:</b>  | Colored         |
| · <b>Odor:</b>   | Odorless        |
| · <b>Odor threshold:</b>                                       | Not determined. |
| · <b>pH-value:</b>   | Not determined  |
| · <b>Change in condition</b>                                   |                 |
| · <b>Melting point/Melting range:</b>                          | Not determined  |
| · <b>Boiling point/Boiling range:</b>                          | Not determined  |
| · <b>Flash point:</b>  | Not determined  |
| · <b>Flammability (solid, gaseous):</b>                        | Not determined  |
| · <b>Decomposition temperature:</b>                            | Not determined  |
| · <b>Auto igniting:</b>  | Not determined  |

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|                               |   |
|-------------------------------|---|
| · <b>Danger of explosion:</b> | Product does not present an explosion hazard. |
|-------------------------------|---|

|                            |                |
|----------------------------|----------------|
| · <b>Explosion limits:</b> |                |
| <b>Lower:</b>              | Not determined |
| <b>Upper:</b>              | Not determined |

|                          |                |
|--------------------------|----------------|
| · <b>Vapor pressure:</b> | Not determined |
|--------------------------|----------------|

|                           |                |
|---------------------------|----------------|
| · <b>Density:</b>         | Not determined |
| · <b>Relative density</b> | Not determined |
| · <b>Vapor density</b>    | Not determined |
| · <b>Evaporation rate</b> | Not determined |

|  |            |
|--|------------|
| · <b>Solubility in / Miscibility with Water:</b> | Insoluble. |
|--|------------|

|   |                |
|---|----------------|
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined |
|---|----------------|

|                            |  |
|----------------------------|--|
| · <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:** None

**11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**

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

|                                     |
|-------------------------------------|
| <b>1314-62-1 vanadium pentoxide</b> |
|-------------------------------------|

|      |      |                |
|------|------|----------------|
| Oral | LD50 | 10 mg/kg (rat) |
|------|------|----------------|

- **Primary irritant effect:**
- **on the skin:** Irritating effect
- **on the eye:** Mechanical effects only.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

|   |
|---|
| · <b>IARC (International Agency for Research on Cancer)</b> |
|---|

|           |              |   |
|-----------|--------------|---|
| 1313-99-1 | nickel oxide | 1 |
|-----------|--------------|---|

|            |                  |    |
|------------|------------------|----|
| 13463-67-7 | titanium dioxide | 2B |
|------------|------------------|----|

|           |                    |    |
|-----------|--------------------|----|
| 1314-62-1 | vanadium pentoxide | 2B |
|-----------|--------------------|----|

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· **NTP (National Toxicology Program)**

1313-99-1 nickel oxide

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**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 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **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.

**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, TDG, ADN, IMDG, IATA</b>   | Void            |
| · <b>Transport hazard class(es)</b>  | Void            |
| · <b>DOT, TDG, ADN, IMDG, IATA</b>   | Void            |
| · <b>Class</b>   | Void            |
| · <b>Packing group</b>   | Void            |
| · <b>DOT, TDG, IMDG, IATA</b>  | Void            |
| · <b>Environmental hazards:</b>  | Not applicable. |
| · <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            |

## Safety Data Sheet According to HPR

Printing date 24.08.2018

Version 2

Reviewed on 24.08.2018

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

|           |                    |
|-----------|--------------------|
| 1314-62-1 | vanadium pentoxide |
|-----------|--------------------|

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

|           |              |
|-----------|--------------|
| 1313-99-1 | nickel oxide |
|-----------|--------------|

|           |                    |
|-----------|--------------------|
| 1314-62-1 | vanadium pentoxide |
|-----------|--------------------|

· **SARA 311/312:** See Section 2 for the information on physical and health hazards.

**· Canadian substance listings:**
**· Canadian Domestic Substances List (DSL)**

|           |              |
|-----------|--------------|
| 1313-99-1 | nickel oxide |
|-----------|--------------|

|            |                  |
|------------|------------------|
| 13463-67-7 | titanium dioxide |
|------------|------------------|

**· Canadian Ingredient Disclosure list (limit 0.1%)**

|           |              |
|-----------|--------------|
| 1313-99-1 | nickel oxide |
|-----------|--------------|

|           |                    |
|-----------|--------------------|
| 1314-62-1 | vanadium pentoxide |
|-----------|--------------------|

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

None of the ingredients is listed.

**· National regulations:**
**· Additional classification according to Decree on Hazardous Materials:**

Carcinogenic hazardous material group III (dangerous).

**· Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

**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.**