

## **SAFETY DATA SHEETS**

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

071495308

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

071495209 071495217 071495225 071495233 071495241 071495258 071495266 071495274 071495282 071495290  
071495316 071495324 071495332 071495340 071495357 071495373 071495381 071495399 071495407 071495415  
071495423 071495431 071495449 071495456 071495464 071495480 071495498 071495506

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 07/26/2018

Version 3

Reviewed on 07/25/2018

**1 Identification**

- **Product identifier**
- **Trade name:** CERABIEN ZR : FC Paste Stain
- **Article number:** US824-FCPS
- **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](http://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

Muta. 2      H341 Suspected of causing genetic defects.  
Carc. 1A      H350 May cause cancer.  
Repr. 2      H361 Suspected of damaging fertility or the unborn child.  
STOT RE 1    H372 Causes damage to organs through prolonged or repeated exposure.



GHS07

Acute Tox. 4    H302 Harmful if swallowed.  
Skin Irrit. 2    H315 Causes skin irritation.  
Eye Irrit. 2A    H319 Causes serious eye irritation.  
Skin Sens. 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**

H302 Harmful if swallowed.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/26/2018

Version 3

Reviewed on 07/25/2018

Trade name: CERABIEN ZR : FC Paste Stain

(Contd. of page 1)

H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H317 May cause an allergic skin reaction.  
 H341 Suspected of causing genetic defects.  
 H350 May cause cancer.  
 H361 Suspected of damaging fertility or the unborn child.  
 H372 Causes damage to organs through prolonged or repeated exposure.

## Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.  
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308+P313 IF exposed or concerned: Get medical advice/attention.  
 P321 Specific treatment (see on this label).  
 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

## 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 ⚠ Carc. 1A, H350; STOT RE 1, H372; ⚠ Eye Irrit. 2A, H319; Skin Sens. 1, H317; Aquatic Chronic 4, H413	≤1%
1314-62-1	vanadium pentoxide ⚠ Muta. 2, H341; Carc. 2, H351; Repr. 2, H361; STOT RE 1, H372; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; STOT SE 3, H335	≤1%
56-81-5	glycerol	15-35%
107-88-0	1,3-Butanediol ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	5-15%

### 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:** Immediately call a doctor.

### Information for doctor:

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

(Contd. on page 3)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 07/26/2018

Version 3

Reviewed on 07/25/2018

**Trade name: CERABIEN ZR : FC Paste Stain**

(Contd. of page 2)

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

**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:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Ensure adequate 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**

- **Handling:**
- **Precautions for safe handling**  
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**

PEL (USA)	Long-term value: 1 mg/m <sup>3</sup> as Ni
REL (USA)	Long-term value: 0.015 mg/m <sup>3</sup> as Ni; See Pocket Guide App. A
TLV (USA)	Long-term value: 0.2 mg/m <sup>3</sup> as Ni; inhalable fraction

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/26/2018

Version 3

Reviewed on 07/25/2018

Trade name: CERABIEN ZR : FC Paste Stain

(Contd. of page 3)

**1314-62-1 vanadium pentoxide**

PEL (USA)	Ceiling limit value: 0.5* 0.1** mg/m <sup>3</sup> as V <sub>2</sub> O <sub>5</sub> , *respirable dust **fume
REL (USA)	Ceiling limit value: 0.05* mg/m <sup>3</sup> *15-min, except V metal and carbide
TLV (USA)	Long-term value: 0.05* mg/m <sup>3</sup> *as inhalable fraction

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:** Avoid contact with the eyes and skin.

· **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

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:**



Tightly sealed goggles

## 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

· **pH-value:** Not determined

· **Change in condition**

Melting point/Melting range: 18.18 °C (glycerol)

Boiling point/Boiling range: 290 °C (glycerol)

(Contd. on page 5)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 07/26/2018

Version 3

Reviewed on 07/25/2018

**Trade name: CERABIEN ZR : FC Paste Stain**

(Contd. of page 4)

· <b>Flash point:</b>	177 °C (glycerol)
· <b>Flammability (solid, gaseous):</b>	Product is not flammable.
· <b>Ignition temperature:</b>	523 °C (glycerol)
· <b>Decomposition temperature:</b>	Not determined
· <b>Auto igniting:</b>	Not determined
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
Lower:	0.9 Vol % (glycerol)
Upper:	Not determined
· <b>Oxidizing properties</b>	Not determined
· <b>Vapor pressure:</b>	0.1 hPa (20°C, glycerol)
· <b>Density:</b>	
Relative density	Not determined
Vapor density	Not determined
Evaporation rate	Not determined
· <b>Solubility in / Miscibility with Water:</b>	Partly miscible.
· <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:**

· **LD/LC50 values that are relevant for classification:****1314-62-1 vanadium pentoxide**

Oral LD50 10 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Irritating effect
- **on the eye:** Causes serious eye irritation.
- **Sensitization:** Sensitization possible through skin contact.

(Contd. on page 6)

US

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 07/26/2018

Version 3

Reviewed on 07/25/2018

**Trade name: CERABIEN ZR : FC Paste Stain**

(Contd. of page 5)

**Additional toxicological information:**

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

Harmful

Irritant

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

1313-99-1	nickel oxide	1
1314-62-1	vanadium pentoxide	2B

**NTP (National Toxicology Program)**

1313-99-1	nickel oxide	K
-----------	--------------	---

**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:**

Disposal must be made according to official regulations.

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****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

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/26/2018

Version 3

Reviewed on 07/25/2018

Trade name: CERABIEN ZR : FC Paste Stain

(Contd. of page 6)

- |  |                 |
|--|-----------------|
| · <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            |

## 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.

### · Proposition 65

#### · Chemicals known to cause cancer:

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

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

#### · 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.	
------------------------------------	--

#### · EPA (Environmental Protection Agency)

None of the ingredients is listed.	
------------------------------------	--

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

1313-99-1	nickel oxide	A1
-----------	--------------	----

1314-62-1	vanadium pentoxide	A3
-----------	--------------------	----

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

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

#### · Precautionary statements



**WARNING:** This product can expose you to chemicals including vanadium oxide which is known to the State of California to cause cancer. For more information go to <https://www.p65warnings.ca.gov/>.

#### · 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.

US

(Contd. on page 8)

**Trade name: CERABIEN ZR : FC Paste Stain**

(Contd. of page 7)

## 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 = 2  
Fire = 0  
Reactivity = 0

### · HMIS-ratings (scale 0 - 4)



Health = \*2  
Fire = 0  
Reactivity = 0

### · Abbreviations and acronyms:

Acute Tox. 4: Acute toxicity – Category 4  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
Skin Sens. 1: Skin sensitisation – Category 1  
Muta. 2: Germ cell mutagenicity – Category 2  
Carc. 1A: Carcinogenicity – Category 1A  
Carc. 2: Carcinogenicity – Category 2  
Repr. 2: Reproductive toxicity – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2  
Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4

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