

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
- **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.

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- 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.

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

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1314-62-1 vanadium pentoxide

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

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· Flash point:	177 °C (glycerol)
· Flammability (solid, gaseous):	Product is not flammable.
· Ignition temperature:	523 °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)
Upper:	Not determined
· Oxidizing properties	Not determined
· Vapor pressure:	0.1 hPa (20°C, glycerol)
· Density:	
Relative density	Not determined
Vapor density	Not determined
Evaporation rate	Not determined
· Solubility in / Miscibility with Water:	Partly miscible.
· Partition coefficient (n-octanol/water):	Not determined
· Viscosity:	Not determined
· Dynamic:	Not determined
· Kinematic:	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:** 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)
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- **Primary irritant effect:**
- **on the skin:** Irritating effect
- **on the eye:** Causes serious eye irritation.
- **Sensitization:** Sensitization possible through skin contact.

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- **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

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· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	Void

15 Regulatory information

· 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.

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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.

· **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.**