

SAFETY DATA SHEETS

This SDS packet was issued with item:

071398387

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

071398189 071398197 071398205 071398213 071398221 071398239 071398247 071398254 071398262 071398270

071398288 071398296 071398312 071398320 071398346 071398361 071398379 071398395 071398403 071398411

071398429 071398437 071398445 071398452 071398460 071398478 071398486 071398494

1 Identification

- **Product identifier**
- **Trade name:** KATANA Zirconia ONE
- **Article number:** US902
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Dental ceramic block
- **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.
32 Old Slip, 7th Floor, New York,
NY 10005 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).
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Other hazards**
Dust generation.
Avoid breathing sanding dust / swarf.
- **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:**

| | | |
|-----------|-------------------|---------|
| 1314-23-4 | zirconium dioxide | 50-100% |
| 1314-36-9 | yttrium oxide | 2.5-10% |
| 1313-99-1 | nickel oxide | <0.1% |
| | | |

- **Other ingredients:** Pigment

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4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **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:** 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:**
Product is not flammable
CO2, 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.
Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotective personnel.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
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.

| | | |
|-----------------|-------------------|------------------------|
| · PAC-1: | | |
| 1314-23-4 | zirconium dioxide | 14 mg/m ³ |
| 1314-36-9 | yttrium oxide | 3.8 mg/m ³ |
| 1313-99-1 | nickel oxide | 0.76 mg/m ³ |
| · PAC-2: | | |
| 1314-23-4 | zirconium dioxide | 110 mg/m ³ |
| 1314-36-9 | yttrium oxide | 43 mg/m ³ |
| 1313-99-1 | nickel oxide | 220 mg/m ³ |
| · PAC-3: | | |
| 1314-23-4 | zirconium dioxide | 680 mg/m ³ |
| 1314-36-9 | yttrium oxide | 260 mg/m ³ |

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1313-99-1 nickel oxide

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1,300 mg/m³

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:** Keep respiratory protective device available.
- **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:**

1314-23-4 zirconium dioxide

| | |
|-----------|---|
| PEL (USA) | Long-term value: 5 mg/m ³ as Zr |
| REL (USA) | Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ as Zr |
| TLV (USA) | Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ as Zr; A4 |

1314-36-9 yttrium oxide

| | |
|-----------|--|
| PEL (USA) | Long-term value: 1 mg/m ³ as Y |
| REL (USA) | Long-term value: 1 mg/m ³ as Y |
| TLV (USA) | Long-term value: 1 mg/m ³ as Y |

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 |

- **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.

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Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.

· **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: | Solid |
| · Color: | Colored |
| · Odor: | Odorless |
| · Odor threshold: | Not determined |

| | |
|--------------------|----------------|
| · pH-value: | Not determined |
|--------------------|----------------|

· **Change in condition**

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

| | |
|-----------------------|----------------|
| · Flash point: | Not determined |
|-----------------------|----------------|

| | |
|---|-----------------|
| · Flammability (solid, gaseous): | Not determined. |
|---|-----------------|

| | |
|-------------------------------------|----------------|
| · Decomposition temperature: | Not determined |
|-------------------------------------|----------------|

| | |
|-------------------------|----------------|
| · Auto igniting: | Not determined |
|-------------------------|----------------|

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

| | |
|----------------------------|----------------|
| · Explosion limits: | |
| · Lower: | Not determined |

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| | |
|---|--|
| · Upper: | Not determined |
| · Oxidizing properties | Not determined |
| · Vapor pressure: | Not determined |
| · Density: | Not determined. |
| · 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 |
| · 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**
- **Primary irritant effect:**
- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Subacute to chronic toxicity:**

| | | |
|---|--------------|---|
| · IARC (International Agency for Research on Cancer) | | |
| 1313-99-1 | nickel oxide | 1 |
| · NTP (National Toxicology Program) | | |
| 1313-99-1 | nickel oxide | K |

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.

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- **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.

13 Disposal considerations

- **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.

14 Transport information

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

· **Sara**

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

None of the ingredient is listed.

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

1313-99-1 nickel oxide

· **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

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· 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.

· Cancerogenity categories :

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value)

| | | |
|-----------|-------------------|----|
| 1314-23-4 | zirconium dioxide | A4 |
| 1313-99-1 | nickel oxide | A1 |

· Signal word Void

· Hazard statements Void

· Precautionary statements



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

· Chemical safety assessment

· Named dangerous substances - ANNEX I None of the ingredient 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.

· NFPA ratings (scale 0 - 4)



· HMIS-ratings (scale 0 - 4)



· Abbreviations and acronyms:

- DOT: US Department of Transportation
- ELINCS: European List of Notified Chemical Substances
- Sensitization - Skin 1: Skin sensitisation – Category 1
- Carcinogenicity 1A: Carcinogenicity – Category 1A
- Specific Target Organ Toxicity - Repeated Exposure 1: Specific target organ toxicity (repeated exposure) – Category 1
- Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4