

## **SAFETY DATA SHEETS**

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

071398494

**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 071398387 071398395 071398403  
071398411 071398429 071398437 071398445 071398452 071398460 071398478 071398486

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

Printing date 08/29/2022

Version 1

Reviewed on 08/29/2022

**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%   |
|           | ⚠ Carcinogenicity 1A, H350; Specific Target Organ Toxicity - Repeated Exposure 1, H372; ⚠ Sensitization - Skin 1, H317; Aquatic Chronic 4, H413 |         |

- **Other ingredients:** Pigment

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Trade name: KATANA Zirconia ONE

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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

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.

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 <sup>3</sup>   |
| 1314-36-9 | yttrium oxide     | 3.8 mg/m <sup>3</sup>  |
| 1313-99-1 | nickel oxide      | 0.76 mg/m <sup>3</sup> |

· **PAC-2:**

|           |                   |                       |
|-----------|-------------------|-----------------------|
| 1314-23-4 | zirconium dioxide | 110 mg/m <sup>3</sup> |
| 1314-36-9 | yttrium oxide     | 43 mg/m <sup>3</sup>  |
| 1313-99-1 | nickel oxide      | 220 mg/m <sup>3</sup> |

· **PAC-3:**

|           |                   |                       |
|-----------|-------------------|-----------------------|
| 1314-23-4 | zirconium dioxide | 680 mg/m <sup>3</sup> |
| 1314-36-9 | yttrium oxide     | 260 mg/m <sup>3</sup> |

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1313-99-1 nickel oxide

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1,300 mg/m<sup>3</sup>

## 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 <sup>3</sup><br>as Zr                                               |
| REL (USA) | Short-term value: 10 mg/m <sup>3</sup><br>Long-term value: 5 mg/m <sup>3</sup><br>as Zr     |
| TLV (USA) | Short-term value: 10 mg/m <sup>3</sup><br>Long-term value: 5 mg/m <sup>3</sup><br>as Zr; A4 |

#### 1314-36-9 yttrium oxide

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

#### 1313-99-1 nickel oxide

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

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

## 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.

· **Carcinogenicity 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).

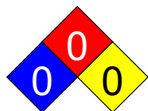
· **Information about limitation of use:**

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)**



Health = 0

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



HEALTH 0 Health = 0

FIRE 0 Fire = 0

REACTIVITY 0 Reactivity = 0

· **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