

## **SAFETY DATA SHEETS**

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

071398403

**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 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%
	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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**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.

<b>· PAC-1:</b>		
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>
<b>· PAC-2:</b>		
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>
<b>· PAC-3:</b>		
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> as Zr
REL (USA)	Short-term value: 10 mg/m <sup>3</sup> Long-term value: 5 mg/m <sup>3</sup> as Zr
TLV (USA)	Short-term value: 10 mg/m <sup>3</sup> Long-term value: 5 mg/m <sup>3</sup> as Zr; A4

### 1314-36-9 yttrium oxide

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

### 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

- **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:**

· <b>Form:</b>	Solid
· <b>Color:</b>	Colored
· <b>Odor:</b>	Odorless
· <b>Odor threshold:</b>	Not determined

· **pH-value:** Not determined

· **Change in condition**

· <b>Melting point/Melting range:</b>	Not determined
· <b>Boiling point/Boiling range:</b>	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:**

· <b>Lower:</b>	Not determined
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· <b>Upper:</b>	Not determined
· <b>Oxidizing properties</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**
- **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:**

· <b>IARC (International Agency for Research on Cancer)</b>		
1313-99-1	nickel oxide	1
· <b>NTP (National Toxicology Program)</b>		
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>	
· <b>DOT, ADR, IMDG, IATA</b>	Void
· <b>UN proper shipping name</b>	
· <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.

**· 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