

Safety Data Sheet
according to HPR, Schedule 1

Printing date 05/29/2024

Version 3


Reviewed on 05/29/2024

1 Identification

- **Product identifier**
- **Trade name:** KATANA Zirconia, KATANA Zirconia Block, KATANA Zirconia ONE
- **Article number:** CA828, 889, 902
- **Relevant identified uses of the substance or mixture and uses advised against**
 No further relevant information available.
- **Application of the substance / the mixture** Dental materials
- **Details of the supplier of the safety data sheet**
- **Supplier**
 Kuraray America, Inc.
 32 Old Slip, 7th Floor, New York,
 NY 10005 U.S.A.
 Tel: 800-879-1676
 Website: www.kuraraydental.com
- **Further information obtainable from:** Supplier
- **Emergency telephone number:**
 CHEMTREC; day and night, within USA and Canada
 1-800-424-9300 CCN706984 or +1 703-527-3887 (collect calls accepted)

2 Hazard identification

- **Classification of the substance or mixture**
 Carcinogenicity - Category 1A H350 May cause cancer.

 - **Label elements**
 - **GHS label elements**
 The product is classified and labeled according to the Globally Harmonized System (GHS).
 - **Hazard pictograms**
- 

GHS08
- **Signal word** Danger
 - **Hazard-determining components of labeling:**
 Cobalt nickel gray periclase (CPMA)
 - **Hazard statements**
 H350 May cause cancer.
 - **Precautionary statements**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/Information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

(Contd. on page 2)

Safety Data Sheet
according to HPR, Schedule 1

Printing date 05/29/2024

Version 3

Reviewed on 05/29/2024

Trade name: KATANA Zirconia, KATANA Zirconia Block, KATANA Zirconia ONE

(Contd. of page 1)

· Dangerous components:

	Cobalt nickel gray periclase (CPMA) ⚠ Carcinogenicity - Category 1A, H350	< 1%
1313-99-1	nickel oxide ⚠ Carcinogenicity - Category 1A, H350; Specific Target Organ Toxicity - Repeated Exposure - Category 1, H372; ⚠ Skin Sensitizer - Category 1, H317; Aquatic Chronic 4, H413	< 0.1%

· Other ingredients:

Zirconium oxide
Yttrium oxide
Pigments

4 First-aid measures

· Description of first aid measures

· General information:

Avoid contact with eyes.
Avoid contact with skin.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist consult 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:

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.

· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways.

Vacuum or sweep material and place in a disposal container. Provide 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.

CA

(Contd. on page 3)

Trade name: KATANA Zirconia, KATANA Zirconia Block, KATANA Zirconia ONE

(Contd. of page 2)

7 Handling and storage

- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
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:** Store at 10 - 30 °C
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

1314-23-4 zirconium dioxide	
EL	STEL: 10 mg/m ³ TWA: 5 mg/m ³ as Zr
1314-36-9 yttrium oxide	
EL	TWA: 1 mg/m ³ as Y
13463-67-7 titanium dioxide	
EL	TWA: 10* 3** mg/m ³ IARC 2B, +total dust;**resp. fraction
EV	TWA: 10 mg/m ³ total dust
12055-23-1 hafnium dioxide	
EL	TWA: 0.5 mg/m ³ as Hf

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Additional information about design of technical systems:** No further data; see section 7.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
- **Breathing equipment:** Suitable respiratory protective device recommended.

(Contd. on page 4)

Trade name: KATANA Zirconia, KATANA Zirconia Block, KATANA Zirconia ONE

(Contd. of page 3)

· 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

· Physical state	Solid
· Color:	Colored
· Odor:	Odorless
· Melting point/Melting range:	Not determined.
· Boiling point/Boiling range:	Not determined.
· Flammability (solid, gaseous):	Product is not flammable.
· Explosion limits:	
· Lower:	Not applicable.
· Upper:	Not applicable.
· Flash point:	Not applicable
· Auto ignition temperature:	Not applicable.
· Decomposition temperature:	Not applicable.
· pH-value:	Not determined.
· Viscosity:	
· Kinematic viscosity	Not applicable.
· Dynamic:	Not applicable.
· Solubility in / Miscibility with	
· Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not applicable.
· Vapor pressure:	Not applicable.
· Density:	KATANA Zirconia 6.0 g/cm ³ (at 20 °C) KATANA Zirconia Block 3.3 g/cm ³ (at 20 °C) KATANA Zirconia ONE 3.3 g/cm ³ (at 20 °C)
· Relative vapor density	Not applicable.
· Particle characteristics	Not determined.

(Contd. on page 5)

Safety Data Sheet
according to HPR, Schedule 1

Printing date 05/29/2024

Version 3

Reviewed on 05/29/2024

Trade name: KATANA Zirconia, KATANA Zirconia Block, KATANA Zirconia ONE

(Contd. of page 4)

- **Other information**
- **Important information on protection of health and environment, and on safety.**
- **Danger of explosion:** Product does not present an explosion hazard.

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:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **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.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity**
May cause cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - single exposure**
Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - repeated exposure**
Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Subacute to chronic toxicity:**

· **Carcinogenic categories**

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

1313-99-1	nickel oxide	1
	Cobalt nickel gray periclase (CPMA)	1

· **NTP (National Toxicology Program)**

1313-99-1	nickel oxide	K
	Cobalt nickel gray periclase (CPMA)	K

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

(Contd. on page 6)

Safety Data Sheet according to HPR, Schedule 1

Printing date 05/29/2024

Version 3

Reviewed on 05/29/2024

Trade name: KATANA Zirconia, KATANA Zirconia Block, KATANA Zirconia ONE

(Contd. of page 5)

- **Other adverse effects**
- **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.

13 Disposal considerations

- **Recommendation:**
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	Void
· DOT/TDG, ADR, IMDG, IATA	Void
· UN proper shipping name	Void
· DOT/TDG, ADR, IMDG, IATA	Void
· Transport hazard class(es)	
· DOT/TDG, ADR, IMDG, IATA	
· Class	Void
· Packing group	
· DOT/TDG, 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

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Canadian substance listings:**

· Canadian Domestic Substances List (DSL)	
1314-23-4	zirconium dioxide
1314-36-9	yttrium oxide
13463-67-7	titanium dioxide
12055-23-1	hafnium dioxide
1313-99-1	nickel oxide
· Canadian Non-Domestic Substances List (NDSL)	
None of the ingredients is listed.	
· Canadian Ingredient Disclosure list (limit 0.1%)	
None of the ingredients is listed.	

(Contd. on page 7)

Safety Data Sheet
according to HPR, Schedule 1

Printing date 05/29/2024

Version 3

Reviewed on 05/29/2024

Trade name: KATANA Zirconia, KATANA Zirconia Block, KATANA Zirconia ONE

(Contd. of page 6)

· **Canadian Ingredient Disclosure list (limit 1%)**

None of the ingredients is listed.

· **National regulations:**

· **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.

· **Relevant phrases**

H317 May cause an allergic skin reaction.

H350 May cause cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H413 May cause long lasting harmful effects to aquatic life.

· **Abbreviations and acronyms:**

DOT: US Department of Transportation

ELINCS: European List of Notified Chemical Substances

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

CA