

Material Safety Data Sheet

Zirconia Block

Page 1 of 4

SECTION 1: Product Identification

1.1. Chemical Name

Zirconia Block

1.2. Chemical Formula

ZrO₂

1.3. application / preparation

Zirconia Block for dental restorations

1.3. Details of the supplier of the safety data sheet

Company Name: Shandong Huge Dental Material Corporation
Address: No.68 shanghai Road, Donggang District
City, State, Zip Code: Rizhao City, Shandong Province, 276800, P.R.China
Telephone: 86-0633-2277268
email address: marketing@hugedental.com
Website: www.hugedental.com

SECTION 2: Composition/Information on Ingredients

Chemical Name	CAS#	Hazardous(Y/N)	concentration(%)
zirconium oxide	1314-23-4	Y	>85
Yttrium oxide	1314-36-9	Y	<6
Hafnium oxide	12055-23-1	N	<5
Aluminum oxide	1344-28-1	Y	<1
Inert ingredients	1344-28-1	N	<5

SECTION 3: Hazards Identification

3.1. Hazard designation for human an environment

n.a

3.2. Hazardous / non hazardous preparation

n.a

3.3 Harmful effects to health and evironment on

do not inhale dust

3.4 Other hazards based on Material

none

SECTION 4: First aid measures

4.1. general information

no special measures are requiredNotes to physician: No hazards which require special first aid measures.

4.2. after inhalation

supply fresh air. If irritations occur or persist, consult a physician.

4.3. after skin contact

rinse thoroughly with warm water and soap.

4.4. after eye contact

rinse open eye for several minutes under running water. If symptoms persist, consult a physician.

4.5 after swallowing

rinse mouth thoroughly with water. If symptoms persist consult a physician

4.6 information for physician

n.a.



Safety Data Sheet

Zirconia Block

Page 2 of 4

SECTION 5: Fire-fighting Measures

5.1 suitable extinguishing media

n.a.

5.2 not suitable extinguishing media

n.a.

5.3 hazardous combustion products

n.a.

5.4 special protection equipment

n.a.

SECTION 6: Accidental Release Measures

6.1 personal precautions

common use of protective clothing, dust mask and dust extractor device

6.2 environmental precautions

do not empty into surface water, ground-water or drain

6.3 methods of cleaning

absorb mechanically

6.4 additional information

no special measures are required for material in compact shape

SECTION 7: Operation and Storage

7.1 Operation

according to instruction sheet

7.2 storage

store break-proof and in dry conditions

7.3 application

n.a.

SECTION 8: Exposure Controls/Personal Protection

8.1 exposure Guidelines: The following limits apply to components of this material Chemical

Zirconium compounds (as Zr)	5mg/M3----ACGIH TWA	5mg/M3---OSHA PEL
Zirconium compounds (as Zr)	10mg/M3----ACGIH TWA	10mg/M3---OSHA PEL
Yttrium compounds(as Y)	1mg/M3----ACGIH TWA	
Aluminum oxide		
(respirable fraction)	3mg/M3----ACGIH TWA	5mg/M3---OSHA PEL
Aluminum oxide(total dust)	10mg/M3----ACGIH TWA	15mg/M3---OSHA PEL

(where: TWA=Time-weighted Average(8-hour exposure), STEL=Short-Time Exposure Limit(15-minute time-weighted average exposure))

8.2 limitation and monitoring to exposure

n.a.

8.2.1 limitation and monitoring to exposure at work station

use suitable dust extractor device at workstation. Avoid contact with skin, mouth, eye and clothes. Do not eat, drink or smoke while you are working. Keep away from food and drinks.

8.2.1.1 respiratory protection

use respirator if there is not sufficient extractor device. Do not inhale dust.

8.2.1.2. hand protection

wear protective gloves, wash your hands after finishing work



Safety Data Sheet

Zirconia Block

Page 3 of 4

SECTION 8: Exposure Controls/Personal Protection

8.2.1.3. eye protection

wear protective glasses

8.2.1.4. skin protection

use protective clothes

8.2.2. limitation and monitoring to environmental exposure

n.a.

SECTION 9: Physical and Chemical Properties

9.1 appearance

solid

9.1.1 aggregate state

white

9.1.2 odour

odourless

9.2 pH

n.a.

9.2.1 boiling poin

about 5000 oC

9.2.2 flash poin

not flammable

9.2.3. auto flammabilit

not self-igniting

9.2.4. explosive propertie

n.a.

9.2.5. oxidizing properties

n.a.

9.2.6. vapor pressure

n.a.

9.2.7. relative density

about 3.10-3.40 g/cm3

9.2.8. solubility water / fat

insoluble in water

9.2.9. partition coefficient

n.a.

9.2.10. Viscosity

n.a.

9.2.11.vapor densitiy

n.a

9.2.12. evaporation rate

n.a.

9.3 other data

melting point about 2680 °C

SECTION 10: Stability and Reactivity

10.1 conditions to avoid

n.a.

10.2 materials to avoid

n.a.



Safety Data Sheet

Zirconia Block

Page 4 of 4

SECTION 10: Stability and Reactivity

10.3 hazardous decomposition products

n.a.

SECTION 11: Toxicological Information

This product doesn't contain any substances that are considered to be harmful to human health

SECTION 12: Ecological Information

If use properly, there are not environmental problems expected. Do not empty into surface water, groundwater or drains.

12.1 ecotoxicity

none

12.2 mobility

n.a.

12.3 persistence / degradability

n.a.

12.4. bioaccumulation potential

n.a.

12.5. other adverse effects

none

SECTION 13: Disposal Considerations

Product and packaging should be disposed to official rules and directives.

SECTION 14: Transport Information

UN number:	n.a.
class:	n.a.
packaging group:	n.a.
ocean harmful substances:	n.a.
other relevant information:	no hazardous good

SECTION 15: Regulatory Information

subject classification: This product is no subject to declaration according to CE rules.

SECTION 16: Other Information

This safety data sheet 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.

We can not a guarantee or give a warranty for the accuracy, dependability and completeness of this information, explicitly or implicitly. We call up on any person who get this information to urgently check and verify the adequacy and completeness for her or his special application.

n.a. = not applicable