

EC Directive 1907/2006

# Safety data sheet according

1. Description of the substance or mixture and the company	
Trade name	<b>CADtools Opaque</b> Opaque, discs
Description	Blanks made from zirconium dioxide ceramic for use in the manufacture of dental prostheses
Manufacturer / supplier	pritidenta® GmbH Meisenweg 37 70771 Leinfelden-Echterdingen / Germany Telephone +49 (0) 711.320656-0  eMail: info@pritidenta.com www.pritidenta.com
Worldwide Distributor	MINDFAB GmbH Max-Josef-Metzger-Str. 6 86157 Augsburg / Germany Telephone +49 (0) 821.455252-0  eMail: augsburg@cadtools.eu www.cadtools.eu
Emergency information	Giftnotrufzentrale Freiburg [Freiburg poison control center]: Telephone +49 (0) 761.19240 (24-hour emergency information service)

2. Composition/information on ingredients				
Chem. Characterization, description				
Composition	Molecular formula	CAS no.	EINEC no.	Weight percent
Zirconium dioxide		1314-23-4	215-227-2	> 99
(+ hafnium oxide + yttrium oxide)	ZrO <sub>2</sub> /HfO <sub>2</sub> /Y <sub>2</sub> O <sub>3</sub>	-	-	
Hafnium oxide	HfO <sub>2</sub>	12055-23-1	235-013-2	< 3
Yttrium oxide	Y <sub>2</sub> O <sub>3</sub>	1314-36-9	215-233-5	4,5-10,5
Aluminium oxide	Al <sub>2</sub> O <sub>3</sub>	1344-28-1	215-691-6	< 0,4
Iron oxide	Fe <sub>2</sub> O <sub>3</sub>	1309-37-1	215-168-2	< 0,35
Erbium oxide	Er <sub>2</sub> O <sub>3</sub>	12061-16-4	235-045-7	< 0,65
Manganese oxide	Mn <sub>2</sub> O <sub>3</sub>	1317-34-6	215-264-4	< 0,009
	Mn <sub>3</sub> O <sub>4</sub>	1317-35-7	215-266-5	
Cobalt oxide	Co <sub>3</sub> O <sub>4</sub>	1308-06-1	215-157-2	
Other oxides	-	-	-	< 0,05

**3. Hazards identification**

Hazard statements for humans and the environment	N / A
Hazardous/non-hazardous preparation	N / A
Additional information	Do not inhale dust
Other hazards based on the mater	None

**4. First aid measures**

General information	No special measures required.
After inhalation	Seek fresh air. If complaints persist, seek advice from a doctor.
After skin contact	If the grinding dust comes into contact with skin, wash thoroughly with warm water and soap.
After eye contact	If product dust gets into the eye, rinse the eye with a large amount of cool and clean water. If irritation persists, consult a doctor.
After swallowing	Rinse out the mouth; if complaints persist, seek advice from a doctor.

**5. Fire-fighting measures**

Suitable extinguishing media	N / A
Unsuitable extinguishing media	N / A
Special hazards	N / A
Special protective equipment	No special measures required.

**6. Accidental release measures**

Personal protection measures	Object extraction, face mask, protective clothing.
Environmental protection measures	Substance must not come into contact with surface water, ground water or sewage system.
Procedure for cleaning up and collecting	Collect mechanically or use vacuum.
Additional information	No special measures are required for the material in its compact form.

## 7. Handling and storage

Handling	To be carried out by trained personnel as per instructions. It must be ensured that: <ul style="list-style-type: none"> <li>• Dust is prevented from forming and being deposited</li> <li>• All contact with moisture (e.g. wet hands) is avoided</li> <li>• Sufficient ventilation and suitable extraction is available</li> </ul>
Storage	It must be ensured that the blanks: <ul style="list-style-type: none"> <li>• Are stored dry in the original packaging</li> <li>• Are not exposed to impacts or vibration</li> <li>• Are not soiled</li> </ul>
Use	Gebrauchsanweisung beachten

## 8. Exposure controls / personal protection

Exposure limit values	TRGS 900. Peak limit (4 mg / cm <sup>3</sup> ), respirable fraction (5 mg / cm <sup>3</sup> )
Limit and monitoring of the exposure	Not known
Limiting exposure in the workplace	Limiting exposure in the workplace: Suitable extraction / ventilation must be used in the workplace or on the equipment. Avoid contact with skin, mouth, eyes and clothing. Do not smoke, eat or drink while working.
Keep personal protective equipment away from food and drink.	
Dust formation	A respirator is recommended for grinding work.
Hand protection	Wear protective gloves, wash your hands after work, use skin care products.
Eye protection	Wear safety glasses for grinding work.
Body protection	Wear lightweight protective clothing.

## 9. Physical and chemical properties

Appearance	Industrially manufactured solid, white / tooth color.
Physical state	Solid
Odor	Odorless
Melting point	Not applicable
Boiling point	Not applicable
Flashpoint	Not applicable
Relative density	< 2,98 g / cm <sup>3</sup> „white body“ density (final density > 6,04 g / cm <sup>3</sup> )
Solubility	Insoluble in water
Flammability	Not flammable
Explosion risk	No risk of explosion

**10. Stability and reactivity**

Conditions to avoid	Not known
Materials to avoid	Not known
Hazardous decomposition products	No hazardous reactions known.

**11. Toxicological information**

Testing of toxicological effects  
 Yttrium oxide partially stabilized zirconium dioxide (3Y-TZP) has no cell-toxic potential, does not cause allergic reactions and is biocompatible.

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Practical experience  
 Breathing dust can cause respiratory tract irritation. Inflammation of the eye because of mechanical action (dust) is possible.

**12. Ecological information**

Ecotoxicity	When handled and used correctly, no ecological problems are to be expected.
Mobility	Not applicable
Persistence and degradability	Not applicable
Bioaccumulative potential	Not known
Other adverse effects	Not known

**13. Disposal considerations**

Local and official regulations must be observed when disposing of the product and any residual material.

**14. Transport information**

<b>Information</b>	<b>Description</b>
UN number	Not documented
Type	Not documented
Concrete description of the goods	Not documented
Packing Group	Not documented
Marine Pollutant	Not documented
Other applicable information	No special transport precautions
Note	Fragile product - sturdy packaging with soft padding

**15. Regulatory information**

Labeling requirement	There is no labeling requirement for the product under EU Directives.
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**16. Other information**

This information is based on current knowledge and experience. This safety data sheet describes products in terms of safety requirements. The information does not represent a guarantee of product properties and does not give rise to a contractual legal relationship.

Although this information is correct based on the knowledge currently available to us and reflects the state of the product upon delivery, we do not provide any warranty, guarantee or equivalent, either explicitly or implicitly, for the accuracy, reliability and / or completeness of the information.

REF 329 Rev 001 Printed on: 14.12.2021