

Safety data sheet according to EC Directive 1907/2006

REF 540 Rev. 000 Printed on: 03/03/2025

1. Description of the substance or mixture and the company

- 1.1 Trade name: **GC Initial Zirconia Disk**
Multilayer Elite
- 1.2 Description: Blanks made from zirconium dioxide ceramic for use in the manufacture of dental prostheses
- 1.3 Manufacturer/supplier: pritidenta® GmbH
Meisenweg 37
70771 Leinfelden-Echterdingen
Germany
E-Mail info@pritidenta.com
www.pritidenta.com
Telefon +49 (0) 711.320656-0
- 1.4 Emergency information: International: +01-813-248-0585 (ChemTel Inc.)

2. Composition/information on ingredients

Chem. Characterization, description:

<u>Composition</u>	<u>Molecular formula</u>	<u>CAS no.</u>	<u>EINECS no.</u>	<u>Weight percent.</u>
Zirconium dioxide				
(+hafnium oxide+yttrium oxide)	ZrO ₂ /HfO ₂ /Y ₂ O ₃	1314-23-4	215-227-2	> 99
Hafnium oxide	HfO ₂	12055-23-1	235-013-2	< 3
Yttrium oxide	Y ₂ O ₃	1314-36-9	215-233-5	4,5 – 10,5
Aluminum oxide	Al ₂ O ₃	1344-28-1	215-691-6	< 0,4
Iron oxide	Fe ₂ O ₃	1309-37-1	215-168-2	< 0,35
Erbium oxide	Er ₂ O ₃	12061-16-4	235-045-7	< 0,65
Cobalt oxide	Co ₃ O ₄	1308-06-1	215-157-2	< 0,009
Other oxides	-	-	-	< 0,05

3. Hazards identification

- 3.1 Hazard statements for humans and the environment: N/A
- 3.2 Hazardous/non-hazardous preparation: N/A
- 3.3 Additional information: Do not inhale dust.
- 3.4 Other hazards based on the material: None.

4. First aid measures

- 4.1 General information: No special measures required.
- 4.2 After inhalation: Seek fresh air. If complaints persist, seek advice from a doctor.
- 4.3 After skin contact: If the grinding dust comes into contact with skin, wash thoroughly with warm water and soap.
- 4.4 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.
- 4.5 After swallowing: Rinse out the mouth; if complaints persist, seek advice from a doctor.

5. Fire-fighting measures

5.1	Suitable extinguishing media:	N/A
5.2	Unsuitable extinguishing media:	N/A
5.3	Special hazards:	N/A
5.4	Special protective equipment:	No special measures required.

6. Accidental release measures

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

7. Handling and storage

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

8. Exposure controls/personal protection

8.1	Exposure limit values:	TRGS 900. Peak limit (4 mg/cm ³), respirable fraction (5 mg/cm ³)
8.2	Limit and monitoring of the exposure:	Not known.
	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

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

10. Stability and reactivity

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|------|-----------------------------------|-------------------------------|
| 10.1 | Conditions to avoid: | Not known. |
| 10.2 | Materials to avoid: | Not known. |
| 10.3 | Hazardous decomposition products: | No hazardous reactions known. |

11. Toxicological information

- 11.1 Testing of toxicological effects
Yttrium oxide partially stabilized and fully stabilized zirconium dioxide (4Y-TZP and 5Y-TZP) has no cell-toxic potential, does not cause allergic reactions and is biocompatible.
- 11.2 Practical experience
Breathing dust can cause respiratory tract irritation. Inflammation of the eye because of mechanical action (dust) is possible.

12. Ecological information

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|------|--------------------------------|---|
| 12.1 | Ecotoxicity: | When handled and used correctly, no ecological problems are to be expected. |
| 12.2 | Mobility: | Not applicable. |
| 12.3 | Persistence and degradability: | Not applicable. |
| 12.4 | Bioaccumulative potential: | Not known. |
| 12.5 | Other adverse effects: | Not known. |

13. Disposal considerations

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

14. Transport information

- | Information | Description |
|---|---|
| 14.1 UN number: | Not documented. |
| 14.2 Type: | Not documented. |
| 14.3 Concrete description of the goods: | Not documented. |
| 14.4 Packing Group: | Not documented. |
| 14.5 Marine Pollutant: | Not documented. |
| 14.6 Other applicable information: | No special transport precautions. |
| 14.7 Note: | Fragile product – sturdy packaging with soft padding. |

15. Regulatory information

- 15.1 Labeling requirement: There is no labeling requirement for the product under EU Directives.

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.