

EC Safety Data Sheet

DD Bio Z made of zirconium dioxide
Ceramic blanks for the manufacture of crowns and bridges
This document applies to all manufactured variants



Issue 5 from 01.02.2013

1. Substance/Preparation and company name

1.1 Name of substance or preparation

DD Bio Z

1.2 Use of substance/preparation

DD Bio Z made of zirconium dioxide are ceramic blanks for the manufacture of crown and bridge frameworks.

1.3 Company name

Dental Direkt Handels GmbH
Industriezentrum 106-108
32139 Spenge
Germany

2. Composition/information on ingredients

| Synonyms | CAS no. | EINECS no. | Concentration | Molecular formula |
|-----------------|------------|------------|---------------|-------------------------------|
| Zirconium oxide | 1314-23-4 | 215-227-2 | 88 - 96% | ZrO ₂ |
| Yttrium oxide | 1314-36-9 | 215-233-5 | 4 - 6% | Y ₂ O ₃ |
| Hafnium oxide | 12055-23-1 | 235-013-2 | 1 - 5% | HfO ₂ |

3. Possible risks

No classification

4. First aid measures

Cause

Inhalation

Skin contact

Eye contact

Swallowing

Remedy

Bring into fresh air, contact a doctor if discomfort continues

Wash thoroughly with warm water and soap
Consult a doctor should skin irritation occur

Wash out immediately with copious amounts of cool water. Consult a doctor if irritation persists.

Rinse out mouth with water and then drink copious amounts of water, consult a doctor in the event of complaints.

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5. Fire fighting measures

Indication

Suitable extinguishing agent:

Unsuitable extinguishing agent:

Special risks:

Special protective equipment
for fire fighting:

Additional instructions:

Comment

Fire extinguishing measures suited to environment.
The product itself does not burn.

Unknown

Unknown

Wear respiratory protective equipment
independent of ambient air in case of fire
Prevent extinguishing water from penetration
surface water or the ground water system

6. Measures in case of unintended release.

6.1 Personal precautionary measures

Use personal protective equipment.

6.2 Environmental protection measures

Prevent from penetrating surface water or the sewer system.

6.3 Cleaning procedure

Pick up mechanically, avoid dust formation, fill into labelled, closable containers

7. Handling and storage

7.1 Handling

This product should only be handled by trained personnel.

Ensure that

- dust formation and dust deposits are avoided
- all contact with damp (e.g. wet hands) is avoided
- adequate ventilation and a suitable extraction systems is available.
- occupational exposure limits (OEL) and / or other limit values are observed

7.2 Storage

Ensure that the blanks:

- are stored in their original packaging
- are not exposed to blows or severe vibration
- do not come into contact with liquid: observe water directives
- are not contaminated
- are stored between 5°C and 50°C.

Instructions for common storage: adhere to VCI storage system rules

Instructions on fire and

explosion protection:

no special precautionary measures required

VCI storage class:

13, non-flammable solids

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7.3 Specific usage

Please observe instructions for use.

8. Exposure control and personal protective equipment

8.1 Exposure limits

Zirconium and water insoluble compounds; CAS no.: 1314-23-4

| | | |
|--------------|---|-----------------------|
| Basis | : | TRGS 900 |
| Limit values | : | 1 mg/m ³ E |
| Peak limit | : | 1(l) |
| Comment | : | 10, DFG, Sah |

8.2. Personal protective equipment

Protection

Respiratory protection

Hand protection

Description

Respiratory protection with particle filter EN 143

Glove material, butyl rubber, natural rubber, nitrile rubber. Details of material thickness and break through time are not applicable for non-dissolved solids / dusts

Eye protection

Body protection

General protective measures

Wear safety glasses during grinding work.

Protective clothing

The precautionary measures usual when handling chemicals should be observed.

Store working clothes separately

9. Physical and chemical properties

9.1 General information

Description

Appearance

Colour

Odour

industrially-manufactured solid

white

odourless

9.2 Important information regarding health and environmental protection and safety

Description

PH value

Flammability (solid, gaseous)

Flammability

(contact with water)

Dust explosion hazard

no data available

not highly flammable, method Directive 67/548/EEC, Annex V, A.10

not highly flammable, method Directive 67/548/EEC, Annex V, A.12.

no data available

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Explosion limits
Lower explosion limit no data available

Spontaneous ignitability not highly flammable, method Directive 67/548/EEC, Annex V, A.16.

Density no data available

Bulk density 1.000 – 1.500 kg/m³

Solubility water insoluble

10. Stability and reactivity

10.1 Conditions to be avoided

None known

10.2 Substances to be avoided

None known

10.3 Hazardous degradation products

Not applicable

10.4 Thermal degradation

Not applicable

11. Toxicological information

Toxicological information not available

12. Ecological information

12.1 Ecotoxicity

No ecological problems should be expected if handled and used correctly.

12.2 Mobility

Not applicable

12.3 Persistence and degradability

Not applicable

12.4 Bioaccumulation potential

Unknown

12.5 Other harmful effects

Unknown

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13. Disposal instructions

13.1 Product

- Product: - Disposal should conform to federal/national and local regulations
- No waste key number can be determined for this product in compliance with the European Waste List, as assignment can only be realised on the basis of the purpose of use of the consumer
- Packaging: - Non-contaminated and cleaned packaging can be recycled

14. Transportation information

Specifications

Land transportation ADR/RID

Air transportation ICAO-TI/IATA-DGR

Sea transportation

Description

Not hazardous substance

Not hazardous substance

Not hazardous substance

15. Legal provisions

15.1 Labelling in compliance with EU Directive

Directive 1999/45/EC

Not subject to mandatory labelling

15.2 National regulations

Hazardous Incident Ordinance

-12.BUMSCHV

Annex 1

Number, not subject to Hazardous Incident Ordinance

- 96/82/EC

Annex 1

Number: not subject to Seveso II Directive

German Clean Air Act

Number 5.2.1:

Total dust, including fine dust

16. Other information

Information in this safety data sheet is based on the current state of knowledge and experience. The safety data sheet describes products with regard to safety requirements. However, these specifications are no guarantee of product characteristics and do not establish any contractually-legal relationship. The information is designed to provide you with a guide to safe handling of products mentioned in the safety data sheet during storage, transportation, processing and disposal. Insofar as the product named in this safety data sheet is blended, mixed or processed with other materials, or subject to processing, the information in this safety data sheet cannot be transferred to the new material manufactured in this manner, provided nothing else is expressly achieved from this. The information does not have the importance of statements of condition, assurances of certain characteristics or guarantees.