

Safety Data Sheet according to 1907/2006/EC

1. Substance/Preparation and company name

Name of substance	Zfx™ BionX ²
Use of substance/preparation	High translucent zirconia for the manufacture of monolithic or for ceramic veneering reduced partial or single crowns, bridges with up to 3-elements (anterior and posterior region), inlays/onlays and veneers for dental application.
Company name	Zfx GmbH Kopernikusstraße 15 85221 Dachau Deutschland Tel. +49 (0) 8131 / 33 244 - 0 Fax +49 (0) 8131 / 33 244 - 10 info@zfx-dental.com www.zfx-dental.com

CE 0123



2. Composition/information on ingredients

Synonyms	CAS no.	EINECS no.	Concentration	Molecular formula
Zirconium oxide	1314-23-4	215-227-2	70 - 100%	ZrO ₂
Aluminum oxide	1344-28-1	215-691-6	0 - 1%	Al ₂ O ₃
Yttrium oxide	1314-36-9	215-233-5	3 - 15%	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

Inhalation	Bring into fresh air, contact a doctor if discomfort continues.
Skin contact	Wash thoroughly with warm water and soap. Consult a doctor should skin irritation occur.
Eye contact	Wash out immediately with copious amounts of cool water. Consult a doctor if irritation persists.
Swallowing	Rinse out mouth with water and then drink copious amounts of water, consult a doctor in the event of complaints.

5. Fire fighting measures

Suitable extinguishing agent	Fire extinguishing measures suited to environment. The product itself does not burn.
Unsuitable extinguishing agent	Unknown
Special risks	Unknown
Special protective equipment for fire fighting	Wear respiratory protective equipment independent of ambient air in case of fire.
Additional instructions	Prevent extinguishing water from penetration surface water or the ground water system.

6. Measures in case of unintended release

Personal precautionary measures	Use personal protective equipment.
Environmental protection measures	Prevent from penetrating surface water or the sewer system.
Cleaning procedure	Pick up mechanically, avoid dust formation, fill into labelled, closable containers.

7. Handling and storage

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

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

Specific usage

Please observe instructions for use.

8. Exposure control and personal protective equipment

Exposure limits

TRGS 900 – General. Dust limit; alveolar fraction; value:	3 mg/m ³
TRGS 900 – General. Dust limit; respirable fraction; value:	10 mg/m ³ 2(II)
Zirconium Oxide – CAS-No.: EC No.:	1314-23-4 215-227-2
TRGS 900 – zirconium and water-insoluble compounds, inhalable fraction, value: Peak limitation category: Skin absorption / Sensitization	1 mg/m ³ 1 (I) Sah
Aluminum Oxide – CAS No.: EC No.:	1344-28-1 215-691-6
DFG - aluminum, aluminum oxide, aluminum hydroxide containing dust (respirable fraction) measured as respirable, value:	1.5 mg/m ³
DFG - aluminum oxide, fibrous dust, carcinogenic (C)	2
DFG - inhalable fraction measured as the inhalable fraction, value:	4 mg/m ³

Personal protective equipment

Peak limitation category:	Respiratory protection with particle filter EN 143
Skin absorption / Sensitization:	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	Wear safety glasses during grinding work.
Body protection	Protective clothing
General protective measures	The precautionary measures usual when handling chemicals should be observed. Store working clothes separately.

9. Physical and chemical properties

General information

Appearance	industrially-manufactured solid
Colour	white
Odour	odourless

Important information regarding health and environmental protection and safety

PH value	no data available
Flammability (solid, gaseous)	not highly flammable, method Directive 67/548/EEC, Annex V, A.10
Flammability (contact with water)	not highly flammable, method Directive 67/548/EEC, Annex V, A.12.
Dust explosion hazard	no data available
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/m ³
Solubility	water insoluble

10. Stability and reactivity

Conditions to be avoided	None known
Substances to be avoided	None known
Hazardous degradation products	Not applicable
Thermal degradation	Not applicable

11. Toxicological information

Toxicological information not available.

12. Ecological information

Ecotoxicity	No ecological problems should be expected if handled and used correctly.
Mobility	Not applicable
Persistence and degradability	Not applicable
Bioaccumulation potential	Unknown
Other harmful effects	Unknown



13. Disposal instructions

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

Land transportation	ADR/RID	Not hazardous substance
Air transportation	ICAO-TI/IATA-DGR	Not hazardous substance
Sea transportation		Not hazardous substance

15. Legal provisions

Labelling in compliance with EU Directive

Directive 1999/45/EC	Not subject to mandatory labelling
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National regulations

Hazardous Incident Ordinance	12.BImSchV; 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.