

Date: 2010.08.05.  
Date of revision: 2012.02.08.

## Zirconia blank, [ZircoStar®]

Site: 1/8  
Version: 2

# SAFETY DATA SHEET

(According to CLP and REACH regulations)

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY

### 1. 1. Identification of the substance or preparation

Product /Készítmény name: **Zirconia blank, [ZircoStar®]**  
CAS number: -  
EINECS number: -  
Registration number:  
Registration name:

### 1. 2. Application of the materials/products

Product (semi-finished product) for manufacturing dental substitutions, and implants with working milling machine.

### 1. 3. Supplier

**Manufacturer/ Supplier:** Kerox Kft.  
Address: 2049 Diósd, Homokbánya út 77.  
Tel.: +36 23 382 006 Fax: +36 23 545 215 Email: sales@keroxdental.net

**Distributor:** Kerox Kft.  
Address: 2049 Diósd, Homokbánya út 77.  
Tel.: +36 23 382 006 Fax: +36 23 545 215 Email: sales@keroxdental.net

**Responsible for safety data sheet:** Kerox Kft.  
00-36-23-382-006  
sales@keroxdental.net

### 1. 4. Emergency telephone

EGÉSZSÉGÜGYI TOXIKOLÓGIAI TÁJÉKOZTATÓ SZOLGÁLAT (ETTSZ)  
1096 Budapest, Nagyvárad tér 2.  
Tel: 06-80-20-11-99, 06-1-476-6464

## 2. HAZARD IDENTIFICATION

### 2.1. Classification according to Regulation No 1272/2008/EC

GHS label elements

Category

Hazard Statements (H- phrases)

Precautionary Statements (P- phrases)

Supplemental hazard information

### 2.2. Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Risk phrases



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### Danger signs

S22 - Do not breathe dust

### 2.3. Other dangers

Grinding dust can may irritate the eyes and skin. Not hazardous according to 1999/45/EC and 1272/2008/EC.

#### 2.3.1. Health effects

do not inhale dust,

#### 2.3.2. Environmental effects

prevent that the substance in water, agricultural land and gutter gets,

#### 2.3.3. Physical and chemical danger

no data

#### 2.3.4. Specific dangers

no data

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

1314-23-4	Zirconium oxide [ZrO <sub>2</sub> ]	90-94 %
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1314-36-9	Yttrium oxide [Y <sub>2</sub> O <sub>3</sub> ]	3-6 %
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1344-28-1	Aluminium oxide [Al <sub>2</sub> O <sub>3</sub> ]	0-1 %
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(You can see full text of R and H sentences at 16 point.)

## 4. FIRST AID MEASURES

### Inhaling

remove the wounded to fresh air, keep patient at rest, when unconscious without delay artificial respiration or oxygen inhalation, if it necessary seek medical treatment,



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### Eyes

when substance has got into eyes, wash out immediately with plenty of water for at least 15 minutes, remove contact lenses, if it necessary seek medical treatment,

### Skin

wash affected skin with plenty of water and soap, if it necessary seek medical treatment,

### Swallowed

by swallowing wash the wounded's mouth with plenty of water, if it necessary seek medical treatment,

### Symptoms and effects, both acute and delayed

no information available,

### General



Instructions for the doctor: symptomatic treatment,

## 5. FIREFIGHTING MEASURES

Fire-hazard class:: E Non-flammable



- 5.1. **Adequate extinguishing materials:**  
use extinguishing material suitable to the near fire circumstances,
- 5.2. **Inadequate extinguishing materials**  
unknown,
- 5.3. **Dangerous decomposition products**  
unknown,
- 5.4. **Special protection equipment for firemen**  
pneumatic breathing-mask, closed industrial protecting clothing,
- 5.5. **Specific dangers**  
unknown,
- 5.6. **Specific methods**  
no data

## 6. ACCIDENTAL RELEASE MEASURES

- 6.1. **Measures for personel protection:**  
evacuate the area and close for the traffic, keep public away from the dangerous area, put on the protective equipment,
- 6.2. **Measures for enrioment protection**  
prevent that the substance in water, agricultural land and gutter gets, when the substance gets in gutter or water, notify the local authorities,
- 6.3. **Methods of decontamination**  
put on the protective equipment, clean carefully discharged material, prevent dust formation, in closed vessel carry to destroying place, after gathering wash throughly the substanceplace,
- 6.4. **Reference to other sections**  
Find the personal protective equipments in the 8.

## 7. HANDLING AND STORAGE

- 7.1. **Handling**
- 7.1.1. **Technical precautions**  
ventillation should be provided, it is recommended to use protective equipments,



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### 7.1.2. Safe handling guidance

avoid the product getting on the skin, in the eyes, on the clothes, avoid breathing its powder, when using do not eat, drink or smoke, Wash hands immediately after handling the product

### 7.2. Storage

#### 7.2.1. Technical measures/storage conditions

in dry, room-temperated, well ventilated place, protected direct sunlight,

#### 7.2.2. Incompatible products

unknown,

#### 7.2.3. Packaging materials

no data

### 7.3. Special application

for dental use,

## 8. EXPOSURE CONTROLS – PERSONAL PROTECTION

### 8.1. Exposure limit values

ingredients: AK value (mg/m<sup>3</sup>) CK value (mg/m<sup>3</sup>) MK value (mg/m<sup>3</sup>)

1. Zirconium oxide [ZrO<sub>2</sub>]

2. Yttrium oxide [Y<sub>2</sub>O<sub>3</sub>]

3. Aluminium oxide [Al<sub>2</sub>O<sub>3</sub>] 6 resp

### 8.2. Exposure control

handle in accordance with good industrial hygiene and safety practices,

#### 8.2.1. Workplace exposure control

##### 8.2.1.1. Respiratory protection:



wear dust mask when drinding, local ventilation should be used when handling this material.

##### 8.2.1.2. Hand protection:



respiratory protection is not required for routine use,

##### 8.2.1.3. Eyes protection:



tightly closing protective goggles (EN 166),

##### 8.2.1.4. Protection of skin and body surface:

respiratory protection is not required for routine use,

### 8.2.2. Environmental exposure control

no data

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. General informations

Appearance: solid substance,

Colour: white,

Odour: odourless,

#### Information on basic physical and chemical properties

Ph: nem jellemző/not applicable

Boiling Point (°C): 5500 °C



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Ignition temperature (°C): nem jellemző/not applicable

Explosive limit:

- lower: nem jellemző/not applicable

- upper: nem jellemző/not applicable

Oxidize facility: nem jellemző/not applicable

Vapor Pressure (20°C): nem jellemző/not applicable

Gravity (20°C): kb. 3.0

Specific gravity (water=1), (20°C): nincs adat/no data

Solubility:

- Water: insoluble,

- Other solvents: no data

Distribution coefficient (n-octanol/water):: nem jellemző/not applicable

Viscosity: nem jellemző/not applicable

Vapor Density: nincs adat/no data

Evaporation Rate: nincs adat/no data

Decomposition Temperature: nincs adat/no data

Other items: no data

**9.2. Other Informations**

Melting Point (°C): 2700 °C

Flash-point (°C): nem jellemző/not applicable

**10. STABILITY AND REACTIVITY****10.1. Reactivity**

stable under normal conditions,

**10.2. Chemical stability**

there is no decomposition under normal condition,

**10.3. Possibility of hazardous reactions**

unknown,

**10.4. Conditions to avoid**

unknown,

**10.5. Incompatible materials**

unknown,

**10.6. Hazardous decomposition products**

unknown,

**11. TOXICOLOGICAL INFORMATION****Actual material**

Zirconia blank, [ZircoStar®]

**11.1. Acute toxicity****11.1.1. After inhaling**

In animals:

no data

**11.1.2. When swallowed**

In animals:

no data

**11.1.3. In case of contacting skin**

In animals:



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no data

### 11.2. Local effects

#### 11.2.1. After inhaling

breathing may irritate the respiratory system,

#### 11.2.2. In case of contacting skin

non irritant,

#### 11.2.3. In case contacting eyes

not an eye irritant,

### 11.3. Sensibility

not classified to be a potential sensitiser,

### 11.4. Chronic toxicity

no data

### 11.5. Specific effects

#### 11.5.1. Genotoxicity

no data

#### 11.5.2. Carcinogenicity

no data

#### 11.5.3. Reproductive toxicity

no data

## 12. ECOLOGICAL INFORMATION

### Actual material

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### 12.1. Ecotoxicity

#### 12.1.1. Water toxicity

not considered harmful to aquatic organisms,

#### 12.1.2. Terrestrial toxicity

no data

#### 12.1.3. Behaviour in waste water treatment plants

no data

### 12.2. Mobility

no data

### 12.3. Biological persistence

#### 12.3.1. General

no information available,

#### 12.3.2. In water

no data

#### 12.3.3. In air

no data

#### 12.3.4. In soils and sediments

no data

### 12.4. Bioaccumulative potential

no data

### 12.5. Results of PBT and vPvB assessment

not considered vPvB or PBT,

### 12.6. Other adverse effects

prevent that the substance in water, agricultural land and gutter gets, when the substance gets in gutter or water, notify the local authorities,



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**13. DISPOSAL CONSIDERATIONS****13.1. Material disposal**

observe all state and local environmental regulations,

**13.2. Package disposal**

observe all state and local environmental regulations,

**13.3. EWC number**

20 03 01

**14. TRANSPORT INFORMATION****UN number**

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**ADR/ADN/RID**

Proper shipping name: Not subject to the regulations.

Technical/Trade name: Zirconia blank, [ZircoStar®]

Hazard class: -

Labels: -

Classification code: -

Packing group: -

Hazard identification number: -

Hazard of environment: NO

Tunnel restriction code: -

**IMDG**

Proper shipping name:

Technical/Trade name: Zirconia blank, [ZircoStar®]

Hazard class: -

Labels: -

Packing group: -

EmS: -

Marine pollutant: NO

**IATA**

Proper shipping name: Not subject to the regulations.

Technical/Trade name: Zirconia blank, [ZircoStar®]

Hazard class: -

Labels: -

Packing group: -

PAX: -

CAO: -

UN Number: -

**15. REGULATORY INFORMATION****15.1. Seveso category**

-

**15.2. Storage category**

13 stowage class: Not combustible solid substances

**15.3. WGK**

WGK 1



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**15.4. Important national regulations related to the product**

Act No. XCIII/1993 on work safety, and the related regulations  
 Act No. XLIII/2000 on waste management  
 Act No. XXV/2000 on chemical safety  
 Gov. Decree No. 98/2001 (VI. 15.) on the conditions of pursuing waste-related activities  
 Decree No. 25/1996 (VIII. 28.) of the Minister of Public Health on the general health requirements of working and work conditions without health risks  
 Decree No. 26/1996 (VIII. 28.) of the Minister of Public Health on the limitations of the (weekly, daily) exposure time of workers employed under certain health risks  
 Decree No. 28/2011. (IX. 6.) of the Minister of Internal Affairs on issuing the National Fire Protection Rules  
 Decree No. 44/2000. (XII. 20.) of the Minister of Health on the detailed rules of certain procedures and activities related to hazardous substances and hazardous products  
 Joint Decree No. 25/2000 (IX. 30.) of the Minister of Health and of the Minister of Social and Family Affairs on the chemical safety of workplaces,  
 EüM decree no.  
 The European Community and Regulation 1907/2006/EC on the registration, evaluation, approval and restriction of chemicals (REACH)

**15.5. Other relevant national regulations**

Joint Decree No. 25/2000 (IX. 30.) of the Minister of Health and of the Minister of Social and Family Affairs on the chemical safety of workplaces  
 EWC code numbers: Decree No. 16/2001 (VII. 18.) of the Minister for the Environment on the lists of waste, as amended by Decree No. 10/2002 (III. 26.) of the Minister for the Environment  
 Road Transport Department: Act 19 of 1979 and decree no. 71/2011 (XII.8.) amending KPM decree no. 20/1979 (IX. 18.) KPM on the promulgation of Annex "A" and "B" of the European Agreement on the International Road Transport of Hazardous Goods, and Annex C of Act LXXVII of 2006 (GKM decree no. 72/2011 (XII.8.) NFM on the promulgation of the domestic use of the annexes of the International Railway Goods Transport Convention  
 1272/2008/EC regulation on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

**15.6. Chemical safety assessment**

no information available,

**16. OTHER INFORMATION****The review affected this chapters:**

1.3, 2.1, 4.5, 6.4, 10.1, 10.2, 10.3, 12.3.1, 12.5, 14, 15.1, 15.2, 15.3, 15.6, 16.3

**Risk phrases****H- phrases****16.1. General information**

This information relates TO THE PRODUCT AS SUCH and is in compliance with the specifications of the enterprise. In case of products and mixtures, it should be ensured that no new risks arise. The information on this data sheet is based on our best knowledge at the time of printing the safety data sheet and is provided in good faith. However, certain data are being reviewed. Users should note the potential for additional risks in case of using the product for purposes other than the recommended application. This data sheet may be used and reproduced for prevention and safety purposes only. The references to legislation, regulations and practical rules, and documents should not be considered complete. It is the responsibility of the person receiving the product to consult all documents related to the use and handling of the product. The responsibility of parties handling the product also includes to pass on the whole of the information listed on the safety data sheet and necessary for work safety and for the protection of health and the environment, to the next person who may get in contact in any way with the product (use, storage, cleaning of containers, other operations).

**16.2. Technical advisory services**

Kerox Kft.  
 Address: 2049 Diósd, Homokbánya út 77.  
 Tel.: +36 23 382 006 Fax: +36 23 545 215

**16.3. Sources**

ESIS (European chemical Substances Information System); Gestis - Stoffdatenbank,

**16.4. Further information**

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