

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Dental Zirconia

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

HT, ST, UT, STC, STML, UTML, UT3D, DHT, DUT, DST

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### **Use of the substance/mixture**

Dental Zirconia DUT are dental milling blanks made of yttria-stabilized zirconia for the manufacture of dental restorations. Dental Zirconia DUT can be used for all dental constructions with up to two pontics in anterior and posterior region.

##### **Uses advised against**

No information available.

#### 1.3. Details of the supplier of the safety data sheet

Company	Audental Bio-Material Co., Ltd 2-2 88, Jingche Road, Songjiang District, 201661 Shanghai, P.R. China
Marketer	Audental Advanced Material Co., Ltd 2-2 88, Jingche Road, Songjiang District, 201661 Shanghai, P.R. China
E-mail (competent person)	wangxi@audental-asia.com

1.4. Emergency telephone number: +86 (0) 335 8691917

#### **Further Information**

No information available.

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### **Regulation (EC) No. 1272/2008**

This mixture is not classified as hazardous according to Regulation (EC) No. 1272/2008.

#### 2.2. Label elements

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### **Chemical characterization**

$ZrO_2 + HfO_2 + Y_2O_3 \geq 99\%$

$Y_2O_3 < 9.2\%$

$Al_2O_3 < 0.1\%$

##### **Further Information**

No information available.

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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### **After inhalation**

Remove person to fresh air and keep comfortable for breathing. In case of respiratory tract irritation, consult a physician.

#### **After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. If skin irritation occurs: Get medical advice/attention.

#### **After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

#### **After ingestion**

Rinse mouth immediately and drink plenty of water.

### 4.2. Most important symptoms and effects, both acute and delayed

No information available.

### 4.3. Indication of any immediate medical attention and special treatment needed

No information available.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### **Suitable extinguishing media**

Dry extinguishing powder. Carbon dioxide (CO<sub>2</sub>). alcohol resistant foam. Water spray jet

#### **Unsuitable extinguishing media**

High power water jet

### 5.2. Special hazards arising from the substance or mixture

No information available.

### 5.3. Advice for firefighters

Co-ordinate fire-fighting measures to the fire surroundings. The product itself does not burn. In case of fire: Wear self-contained breathing apparatus.

#### **Additional information**

Do not allow run-off from fire-fighting to enter drains or water courses.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protection equipment.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

### 6.3. Methods and material for containment and cleaning up

Take up mechanically. Avoid dust formation. Collect in closed and suitable containers for disposal.

### 6.4. Reference to other sections

See protective measures under point 7 and 8. Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### **Advice on safe handling**

See section 8.

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## Advice on protection against fire and explosion

No special fire protection measures are necessary.

## Further information on handling

Avoid dust formation. Protect from moisture. Provide adequate ventilation as well as local exhaustion at critical locations. To follow: Occupational exposure limit values

## 7.2. Conditions for safe storage, including any incompatibilities

### Requirements for storage rooms and vessels

Keep/Store only in original container.

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## Advice on storage compatibility

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

## Further information on storage conditions

Keep away from: Frost, Heat  
Handle with care - avoid bumps, friction and impact.

## 7.3. Specific end use(s)

Observe instructions for use.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

### 8.2. Exposure controls

#### Appropriate engineering controls

Technical ventilation of workplace

#### Protective and hygiene measures

Work in well-ventilated zones or use proper respiratory protection.  
Only wear fitting, comfortable and clean protective clothing.  
Wash hands before breaks and after work.  
Separate storage of work clothes.

#### Eye/face protection

Suitable eye protection:  
Eye glasses with side protection  
goggles

#### Hand protection

Suitable gloves type:  
NBR (Nitrile rubber) DIN EN 374,  
Butyl caoutchouc (butyl rubber) DIN EN 374,  
NR (natural rubber, natural latex).  
Wear cotton undermitten if possible.  
Breakthrough times and swelling properties of the material must be taken into consideration.

#### Skin protection

Protective clothing.

#### Respiratory protection

Particle filter device (DIN EN 143)

## SECTION 9: Physical and chemical properties

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## **9.1. Information on basic physical and chemical properties**

Physical state: solid  
Colour: white  
Odour: odourless

### **Test method**

pH-Value: not applicable

### **Changes in the physical state**

Melting point: not determined  
Initial boiling point and boiling range: not determined  
Sublimation point: not determined  
Softening point: not determined  
Pour point: not determined

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Flash point: not applicable

### **Flammability**

Solid: not applicable  
Gas: not applicable

**Explosive properties** not explosive  
according to EU A.14 Lower explosion  
limits:

not applicable

Upper explosion limits: not applicable

### **Auto-ignition temperature**

Solid: not determined  
Gas: not determined

Decomposition temperature: not determined

### **Oxidizing properties**

Not oxidizing.

Vapour pressure: not determined

Density: not determined

Bulk density: 1000-1500 kg/m<sup>3</sup>

Water solubility: insoluble

### **Solubility in other solvents**

No information available.

Partition coefficient: not applicable

Viscosity / dynamic: not determined

Vapour density: not determined

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Evaporation rate:

not determined

## **9.2. Other information**

No information available.

## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

No information available.

### **10.2. Chemical stability**

No information available.

### **10.3. Possibility of hazardous reactions**

No information available.

### **10.4. Conditions to avoid**

No information available.

### **10.5. Incompatible materials**

No information available.

### **10.6. Hazardous decomposition products**

not applicable

## **SECTION 11: Toxicological information**

### **11.1. Information on toxicological effects**

#### **Toxicokinetics, metabolism and distribution**

No information available.

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#### **Acute toxicity**

Based on available data, the classification criteria are not met.

#### **Irritation and corrosivity**

Based on available data, the classification criteria are not met.

#### **Sensitising effects**

Based on available data, the classification criteria are not met.

#### **Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

#### **STOT-single exposure**

Based on available data, the classification criteria are not met.

#### **STOT-repeated exposure**

Based on available data, the classification criteria are not met.

#### **Aspiration hazard**

Based on available data, the classification criteria are not met.

## **SECTION 12: Ecological information**

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## **12.1. Toxicity**

No information available.

## **12.2. Persistence and degradability**

No information available.

## **12.3. Bioaccumulative potential**

No information available.

## **12.4. Mobility in soil**

No information available.

## **12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## **12.6. Other adverse effects**

No information available.

## **SECTION 13: Disposal considerations**

### **13.1. Waste treatment methods**

#### **Advice on disposal**

Dispose of waste according to applicable legislation.

#### **Contaminated packaging**

Dispose of waste according to applicable legislation. Non-contaminated packages may be recycled.

## **SECTION 14: Transport information**

### **Land transport (ADR/RID)**

#### **14.1. UN number:**

No dangerous good in sense of this transport regulation.

#### **14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

#### **14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

#### **14.4. Packing group:**

No dangerous good in sense of this transport regulation.

### **Inland waterways transport (ADN)**

#### **14.1. UN number:**

No dangerous good in sense of this transport regulation.

#### **14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

#### **14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

#### **14.4. Packing group:**

No dangerous good in sense of this transport regulation.

### **Marine transport (IMDG)**

#### **14.1. UN number:**

No dangerous good in sense of this transport regulation.

#### **14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

#### **14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

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**14.4. Packing group:** No dangerous good in sense of this transport regulation.

## Air transport (ICAO)

**14.1. UN number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

## 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

## 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

## 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No dangerous good in sense of this transport regulation.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regula

### ions/legislation specific for the substance or mixture

#### National regulatory information

Water contaminating class (D): - - not water contaminating

### 15.2. Chemical safety assessment

For the following substances of this mixt are a chemical safety assessment has been carried out:

## SECTION 16: Other information

### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international conernat le transport des marchandises dangereuses par chemin de fer  
(Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Refulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
CLP: Regulation on Classification, Labelling and Packaging of Substances and Mixtures,  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
EC50: Effectice concentration, 50 percent  
DNEL: Derived No Effect Level  
PNEC: Predicted No Effect Concentration PBT:  
Persistent, Bioaccumulative and Toxic vPvB:  
very Persistent and very Bioaccumulative

### Further Information

The above information describes exclusively the safety requirements of the product and is based on our

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present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*

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