

Safety Data Sheet

Report No.: P57168/H250619-031EN

Date: June 20.2025

page 1 of 10

Chemical Safety Data Sheet

(SDS)

Product Name: Zirconia Dental Ceramics/X-Cera Zirconia Blanks

Type/Model: /

Entrust Unit: SHENZHEN XIANGTONG CO.,LTD.

Audited by:

章明

Edited by:

章明



Unit: Foshan Ceramics Research Institute Testing Co., Ltd.

Add: No.18,Liuyuan Road, Chancheng District,Foshan,Guangdong ,China

Tel: 0757-82273885

Web: www.fcric.com.cn

Safety Data Sheet

Report No.: P57168/H250619-031EN

Date: June 20.2025

page 2 of 10

SAFETY DATA SHEET

Zirconia Dental Ceramics/X-Cera Zirconia Blanks

*According to GHS (Tenth Revised Edition)

SDS**Section 1 Identification of the chemical and supplier**◆ **Product identifier**

Product Name	Zirconia Dental Ceramics/X-Cera Zirconia Blanks
Type/Model	Not applicable
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable

◆ **Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses	Please consult the manufacturer.
Uses advised against	Please consult the manufacturer.

◆ **Details of the supplier of the Safety Data Sheet**

Applicant Name	SHENZHEN XIANGTONG CO.,LTD.
Applicant Address	Room 101, 301, 701, 801, Building 1, No.110, Guanchang Road, Dalingshan Town, Dongguan, 523800 Guangdong, P.R. China
Applicant Telephone	+86-15521016970
Applicant Fax	-
Applicant E-mail	liufs@xianton.com
Supplier Name	SHENZHEN XIANGTONG CO.,LTD
Supplier Address	Room 101,301,701,801,Building 1,No.110,Guanchang Road,Dalingshan Town, Dongguan,523800 Guangdong,P.R.China
Supplier Telephone	+86-15521016970
Supplier Fax	-
Supplier E-mail	liufs@xianton.com

◆ **Emergency phone number**

Emergency phone number	+86-15521016970
-------------------------------	-----------------

Section 2 Hazards identification◆ **Hazard classification according to GHS**

Hazard classification according to GHS	Not applicable
---	----------------

◆ **GHS Label elements**

Hazard pictograms	Not applicable
Signal word	Not applicable

◆ **Hazard statements**

Safety Data Sheet

Report No.: P57168/H250619-031EN

Date: June 20,2025

page 3 of 10

Hazard statements		Not applicable	
◆	Precautionary statements		
▲	Prevention		
Prevention		Not applicable	
▲	Response		
Response		Not applicable	
▲	Storage		
Storage		Not applicable	
▲	Disposal		
Disposal		Not applicable	
◆	Hazard description		
▲	Physical and chemical hazards		
Physical and chemical hazards		Solid, insoluble in water, no harm in general situation.	
▲	Health hazards		
Inhaled		According to the material form, it is not the normal way of contacting	
Ingestion		Accidental ingestion of the product may be harmful to the health of the individual.	
Skin Contact		No harm in general situation.	
Eye		This product may cause temporary discomfort following direct contact with the eye.	
▲	Environmental hazards		
Environmental hazards		Please refer to 12th chapter of SDS.	
Section 3 Composition/information on ingredients			
◆	Substance / mixture		
		<input type="checkbox"/> Substance	<input checked="" type="checkbox"/> mixture
Component	Cas No.	EC No.	Concentration (weight percent, %)
ZrO ₂	1314-23-4	215-227-2	88-94
Y ₂ O ₃	1314-36-9	215-233-5	4-10
HfO ₂	12055-23-1	235-013-2	1-5
Al ₂ O ₃	1344-28-1	215-691-6	0.01-0.5
Other oxides	N/A	N/A	0.001-0.5
Section 4 First aid measures			
◆	Description of first aid measures		
General advice		Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.	
Eye contact		Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel	

Safety Data Sheet

Report No.: P57168/H250619-031EN

Date: June 20.2025

page 4 of 10

	uncomfortable.
Skin contact	No harm in general situation. First aid is not needed.
Ingestion	Never feed anything from the mouth to an unconscious person. Call the doctor immediately
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.
♦	Most important symptoms/effects, acute and delayed
1	Please see section 11.
♦	Indication of any immediate medical attention and special treatment needed
1	Treat symptomatically.
2	Symptoms may be delayed.
Section 5 Firefighting measures	
♦	Extinguishing media
Suitable extinguishing media	Use extinguishing media suitable for surrounding area.
Unsuitable extinguishing media	There is no restriction on the type of extinguisher which may be used.
♦	Specific hazards arising from the substance or mixture
1	Not combustible, not considered a significant fire risk, however containers may burn.
♦	Special protective equipment and precautions for fire-fighters
1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.
Section 6 Accidental release measures	
♦	Personal precautions, protective equipment and emergency procedures
1	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
2	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
3	Use personal protective equipment. Avoid breathing vapours, mist, gas or dust.
♦	Environmental precautions
1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.
♦	Methods and materials for containment and cleaning up
1	Cut off sources of leaks as much as possible.
2	Keep the spill area well ventilated.

Safety Data Sheet

Report No.: P57168/H250619-031EN

Date: June 20.2025

page 5 of 10

3 Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

Section 7 Handling and storage

◆ **Precautions for safe handling**

1 Handling is performed in a well ventilated place.

2 Wear suitable protective equipment.

3 Avoid contact with skin and eyes.

◆ **Conditions for safe storage, including any incompatibilities**

1 Keep containers tightly closed.

2 Keep containers in a dry, cool and well-ventilated place.

3 Keep away from heat/sparks/open flames/hot surfaces.

4 Store away from incompatible materials and foodstuff containers.

Section 8 Exposure controls/personal protection

◆ **Control parameters**

▲ **Occupational Exposure limit values**

Component	Country/Region	Limit value - TWA		Limit value - STEL	
		ppm	mg/m ³	ppm	mg/m ³
ZrO ₂	Germany (DFG)	-	0,3	-	2,4
Al ₂ O ₃	USA-OSHA	-	15	-	-
	South Korea	-	10	-	-
	Ireland	-	10	-	-
	Germany (DFG)	-	4	-	-
	Denmark	-	5	-	10
	Australia	-	10	-	-

▲ **Biological limit values**

No information available

▲ **Monitoring methods**

1 EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

2 GBZ/T 300 Series Standards — Determination of Toxic Substances in Workplace Air.

▲ **Engineering controls**

1 Ensure adequate ventilation, especially in confined areas.

2 Ensure that eyewash stations and safety showers are close to the workstation location.

Safety Data Sheet

Report No.: P57168/H250619-031EN

Date: June 20.2025

page 6 of 10

3	Set up emergency evacuation routes and necessary risk mitigation areas.	
4	Operate according to good industrial hygiene and safety regulations.	
▲	Personal protection equipment	
	General requirement	No special requirements, please see the description below.
	Eye protection	In general situation, eye protection is not needed. In the production process, when contacting with dust, tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).
	Hand protection	In general situation, hand protection is not needed.
	Respiratory protection	In general situation, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
	Skin and body protection	In general situation, skin and body protection are not needed.
Section 9 Physical and chemical properties		
◆	Physical and chemical properties	
	Appearance	Smooth outer surface, uniform color, solid in the form of round cakes, blocks, or horseshoes.
	Odor	Odorless
	pH	No information available/Not applicable.
	Melting point/freezing point(°C)	No information available/Not applicable.
	Initial boiling point and boiling range(°C)	No information available/Not applicable.
	Flash point(Closed cup,°C)	No information available/Not applicable.
	Evaporation rate	No information available/Not applicable.
	Flammability	No information available/Not applicable.
	Upper/lower explosive limits[%(v/v)]	No information available/Not applicable.
	Vapor pressure(KPa)	No information available/Not applicable.
	Vapor density(Air = 1)	No information available/Not applicable.
	Relative density(Water=1)	No information available/Not applicable.
	Solubility(mg/L)	Not Soluble In Water
	n-octanol/water partition coefficient	No information available/Not applicable.
	Auto-ignition temperature(°C)	No information available/Not applicable.
	Decomposition temperature(°C)	No information available/Not applicable.
	Viscosity(mm²/s)	No information available/Not applicable.
	Particle characteristics	No information available/Not applicable.
	Explosive properties	No information available/Not applicable.
	Oxidizing properties	No information available/Not applicable.
Section 10 Stability and reactivity		

Safety Data Sheet

Report No.: P57168/H250619-031EN

Date: June 20.2025

page 7 of 10

◆ Stability and reactivity			
Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.		
Chemical stability	Stable under proper operation and storage conditions.		
Possibility of hazardous reactions	No information available		
Conditions to avoid	Incompatible materials, heat, flame and spark.		
Incompatible materials	Strong acid, strong base, strong oxidant.		
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.		
Section 11 Toxicological information			
◆ Acute toxicity			
Component	LD₅₀(oral)	LD₅₀(dermal)	LC₅₀(inhalation,4h)
Y ₂ O ₃	>5mg/kg(Rat)	No information available	No information available
◆ Carcinogenicity			
Component	IARC	NTP	
ZrO ₂	Not Listed	Not Listed	
Y ₂ O ₃	Category 3	Not Listed	
HfO ₂	Not Listed	Not Listed	
Al ₂ O ₃	Not Listed	Not Listed	
Other oxides	Not Listed	Not Listed	
◆ Others			
Skin corrosion/irritation	Based on available data, the classification criteria are not met		
Serious eye damage/irritation	Based on available data, the classification criteria are not met		
Skin sensitization	Based on available data, the classification criteria are not met		
Respiratory sensitization	Based on available data, the classification criteria are not met		
Reproductive toxicity	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		
Germ cell mutagenicity	Based on available data, the classification criteria are not met		
Section 12 Ecological information			
◆ Acute aquatic toxicity			
No information available			

Safety Data Sheet

Report No.: P57168/H250619-031EN

Date: June 20.2025

page 8 of 10

♦	Chronic aquatic toxicity	No information available
♦	Persistence and degradability	No information available
♦	Bioaccumulative potential	No information available
♦	Mobility in soil	No information available
♦	Results of PBT and vPvB assessment	
	Component	Results of PBT and vPvB assessment (according to (EC) No 1907/2006)
	ZrO ₂	not PBT/vPvB
	Y ₂ O ₃	not PBT/vPvB
	HfO ₂	not PBT/vPvB
	Al ₂ O ₃	not PBT/vPvB
	Other oxides	not PBT/vPvB
Section 13 Disposal considerations		
Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Preferably via a certified collector or company.	
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.	
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.	
Section 14 Transport information		
♦	Label and Mark	
	Transporting Label	Not applicable
♦	IMDG-CODE	
	IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
♦	IATA-DG	
	IATA-DGR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
♦	UN-ADR	
	UN-ADR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
♦	Special precautions for user	
	Special precautions for user	During transportation, the transport vehicles shall be equipped with fire-fighting equipment and leakage emergency treatment equipment of corresponding types and quantities. Before transportation, the integrity and tightness of packaging containers shall be checked. Signs and announcements shall be posted on the transport vehicles in accordance with relevant transportation requirements.

Safety Data Sheet

Report No.: P57168/H250619-031EN

Date: June 20.2025

page 9 of 10

◆	Transport in bulk according to IMO instruments
▲	Transport in bulk according to Annex II of MARPOL and the IBC code
	No information available
▲	Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code
	No information available
▲	Transport in bulk in accordance with the IGC Code
	No information available

Section 15 Regulatory information

◆	International list of chemicals									
Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AIICS	ENCS	
Y ₂ O ₃	√	√	√	√	√	√	√	√	√	√
HfO ₂	√	√	√	√	√	√	√	√	√	√
Al ₂ O ₃	√	√	√	√	√	√	√	√	√	√
Other oxides	×	×	×	×	×	×	×	×	×	×

【EINECS】 European Inventory of Existing Commercial Chemical Substances

【TSCA】 United States Toxic Substances Control Act Inventory

【DSL】 Canadian Domestic Substances List

【IECSC】 China Inventory of Existing Chemical Substances

【NZIoC】 New Zealand Inventory of Chemicals

【PICCS】 Philippines Inventory of Chemicals and Chemical Substances

【KECI】 Existing and Evaluated Chemical Substances

【AIICS】 Australia Inventory of Chemical Substances

【ENCS】 Japan Inventory of Existing & New Chemical Substances

Note :

"√" Indicates that the substance included in the regulations

"×" That no data or included in the regulations

Section 16 Additional Information

◆	Information on revision	
	Creation Date	2025/06/20
	Revision Date	-
	Reason for revision	-
◆	References	
	【1】 IPCS:The International Chemical Safety Cards (ICSC) ,website: http://www.ilo.org/dyn/icsc/showcard.home .	
	【2】 IARC, website: http://www.iarc.fr/ .	
	【3】 OECD: The Global Portal to Information on Chemical Substances, website: http://www.chemportal.org/chemportal/index?pageID=0&request_locale=en .	
	【4】 CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple .	

Safety Data Sheet

Report No.: P57168/H250619-031EN

Date: June 20.2025

page 10 of 10

- 【5】 NLM:ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
【6】 EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
【7】 U.S. Department of Transportation:ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
【8】 Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

◆ Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG	International Maritime Dangerous Goods
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	ICAO-International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC ₅₀	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD ₅₀	Lethal Dose 50%	NTP	National Toxicology Program
EC ₅₀	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
ECX	Effective Concentration X%	vPvB	vPvB -High very Persistent, High very Bioaccumulative
P _{ow}	Partition coefficient Octanol:Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor (BCF)	RPE	Respiratory Protective Equipment
ED	Endocrine disruptors	-	-

◆ Disclaimer

This Safety Data Sheet (SDS) The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user' s reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product, This report may not be published as an advertisement without the approval of the Foshan Ceramics Research Institute Testing Co.,Ltd. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is illegal and the offender may be prosecuted to the fullest extent of the law.In case of any different meanings from the language used in the report, the Chinese version is applicable.