

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

FINOFRAME ZR HT CAD/CAM Blank

Article numbers: 04758/ 04759/ 04811-04814/ 06189/ 06192-06194/
06200/06203/06204/06204/06206/06208/06209**Further trade names**

ZIRCONIUM DIOXIDE

Product code: 06192

Product group: Metalloxiide

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Oxide ceramic preparation for the creation of dental restorations

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name:	FINO GmbH	
Street:	Mangelsfeld 18	
Place:	D-97708 Bad Bocklet	
Telephone:	+49-97 08-90 94 20	Telefax: +49-97 08-90 94 21
e-mail:	info@fino.com	Internet: www.fino.com
Contact person:	Joachim Mahlmeister	Telephone: +49-97 08-90 94 20

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

none

Special labelling of certain mixtures

EUH210 Safety data sheet available on request.

Additional advice on labelling

According to EC directives or the corresponding national regulations the product does not have to be labelled.

2.3. Other hazards

Harmful dust is produced during dry-state pulverisation. Inhalation of dust may cause irritation of the respiratory system.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Chemical characterization**Description: pre-sintered, porous ZrO₂ block

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
1314-23-4	Zirconium oxide			Balance %
	215-222-7			
1314-36-9	Yttrium oxide			5,15-5,55 %
	215-233-5			
1344-28-1	Aluminium oxide			0,03-0,07 %
	215-691-1			
-	Other			0-0,02 %
	-		-	
20344-49-4	Iron (III) oxide hydrate			0-0,01 %
	243-746-4			

Full text of H and EUH statements: see section 16.

Further Information

The hazard and safety statements in chapters 4 to 8 and 12 are not related to the product itself but to the dusts released during processing.

SECTION 4: First aid measures
4.1. Description of first aid measures
General information

No special measures are necessary.

After inhalation

Provide fresh air.

Seek medical attention if problems persist.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.

Seek medical attention if problems persist.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes.

Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water.

Seek medical attention if problems persist.

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

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures
5.1. Extinguishing media
Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

Not known.

5.2. Special hazards arising from the substance or mixture

This information is not available.

5.3. Advice for firefighters

No special measures are necessary.

Additional information

The product itself does not burn.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.
Avoid dust formation.
Dust should be exhausted directly at the point of origin.

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.
Use approved industrial vacuum cleaner for removal.

6.4. Reference to other sections

See protective measures under point 7 and 8.
Treat the recovered material as prescribed in the section on waste disposal.
No specific measures for the material in compact form.

SECTION 7: Handling and storage
7.1. Precautions for safe handling
Advice on safe handling

Ensure good ventilation / exhaustion at the workplace.
Do not breathe dust.
Protect from moisture.
Wear personal protection equipment. dust formation
If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Further information on handling

No special handling advices are necessary.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels

Store in a dry place.

Advice on storage compatibility

Not known.

Further information on storage conditions

No special requirements.

Betriebssicherheitsverordnung (BetrSichV) ---

7.3. Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
1344-28-1	Aluminium oxides, respirable dust	-	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

Additional advice on limit values

Exposure limit values: Overflow factor: TRGS 900

8.2. Exposure controls
Appropriate engineering controls

Ensure good ventilation / exhaustion at the workplace.
If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

Protective and hygiene measures

The usual precautionary measures are to be adhered to when handling chemicals.
Wash hands before breaks and after work.
When using do not eat, drink, smoke, sniff.
Do not breathe dust.
Keep away from food, drink and animal feedingstuffs.
Avoid contact with eyes and skin.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

Thorough skin-cleansing after handling the product. After cleaning apply high-fat content skin care cream.

Skin protection

light weight protective clothing.

Respiratory protection

Do not breathe dust.
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Environmental exposure controls

No further relevant information available.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state:	solid
Colour:	white
Odour:	odourless

pH-Value:	not determined	Test method
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Changes in the physical state

Melting point:	2680 °C
Initial boiling point and boiling range:	5500 °C
Softening point:	not determined
Flash point:	non-flammable
Sustaining combustion:	No data available

Flammability

Solid:	not applicable
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Explosive properties

not explosive.

Lower explosion limits:	---
Upper explosion limits:	---
Ignition temperature:	non-flammable

Auto-ignition temperature

Solid:	Product is not selfigniting.
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Decomposition temperature:	not determined
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Vapour pressure:	not determined
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Density:	3 g/cm ³
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Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.
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Viscosity / dynamic:	not determined
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Vapour density:	not applicable
Evaporation rate:	not applicable
Solvent content:	not determined

9.2. Other information

Solid content:	not applicable
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SECTION 10: Stability and reactivity**10.1. Reactivity**

No information available.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

No decomposition if used according to specifications.

10.5. Incompatible materials

No specific if used according to specifications.

10.6. Hazardous decomposition products

No dangerous decomposition products known.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

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

If used pertinently toxic effect are not to expect.

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.

Specific effects in experiment on an animal

Toxicological data are not available.

Additional information on tests

none

Practical experience**Observations relevant to classification**

No special references.

Other observations

Inhalation of dust may cause irritation of the respiratory system. In case of skin contact mechanically irritating.

SECTION 12: Ecological information**12.1. Toxicity**

Do not allow to enter into surface water or drains.

12.2. Persistence and degradability

none Evidence exists for biodegradation processes.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

12.4. Mobility in soil

This information is not available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

If used in accordance with specifications no environmental effects are to expect.

Further information

If used and handled pertinently ecological problems are not to expect.

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:	UN 0000
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:	UN 0000
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:	UN 0000
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.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	UN 0000
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 special measures are necessary.

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

No special precautionary measures.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

2010/75/EU (VOC):	0 %
2004/42/EC (VOC):	0 %

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Additional information: 0

Additional information

According to EC directives or the corresponding national regulations the product does not have to be labelled.

National regulatory information

Water contaminating class (D):

Additional information

Betriebssicherheitsverordnung (BetrSichV) ---
No further data.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information
Abbreviations and acronyms

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IATA: International Air Transport Association
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
IMDG: International Maritime Code for Dangerous Goods
IMDG: International Maritime Code for Dangerous Goods
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
TRGS: Technical rules for hazardous substances
VwVwS: Administrative Regulation on Substances Hazardous to Water
CAS: Chemical Abstracts Service (division of the American Chemical Society)
CLP: Classification, Labelling and Packaging
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Aquatic Chronic 4: Hazardous to the aquatic environment - Chronic Hazard, Category 4
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Carc. 2: Carcinogenicity, Hazard Category 2

Relevant H and EUH statements (number and full text)

EUH210 Safety data sheet available on request.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our 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. The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

Identified uses

No	Short title	SU main	SU	PC	PROC	ERC	AC	Specification
1	Fräsrohling	-	20	15	24	6a	4	1314-23-4

SU main: Main user groups

SU: Sectors of use

PC: Product categories

PROC: Process categories

ERC: Environmental release categories

AC: Article categories

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