

KFO Stone

Revision date: 28.11.2024

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

1.1. Product identifier

KFO Stone

Prod.-No.

Further trade names

4803-2024 KFO Stone extraweiss - 40200,40134,40133

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

Use of the substance/mixture

Dental stone / for the creation of orthodontic working and diagnostic models

Uses advised against

all uses which are not mentioned above

1.3. Details of the supplier of the safety data sheet

Company name:	OBG Oberbergische Gipswerke GmbH	
Street:	Büchlerhausen 22	
Place:	D-51766 Engelskirchen	
Telephone:	+49 2263 92905 35	Telefax: +49 2263 92905 36
E-mail:	info@obg-gmbh.com	
Contact person:	Zentrale	Telephone: +49 2263 92905 35
E-mail:	info@obg-gmbh.com	
Responsible Department:	management	

1.4. Emergency telephone number:

+49 2263 92905 35 (Mo-Fr 07:00-17:00 Uhr)

Further Information

No information available.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

This mixture is not classified as hazardous in accordance with GB CLP Regulation.

2.2. Label elements

GB CLP Regulation

Special labelling of certain mixtures

EUH210	Safety data sheet available on request.
EUH212	Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

2.3. Other hazards

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

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria. This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Advices on safe handling: Avoid dust formation.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
50-00-0	Formaldehyde ... %			< 0.1 %
	200-001-8	605-001-00-5	01-2119488953-20	
	Carc. 1B, Muta. 2, Acute Tox. 2, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1; H350 H341 H330 H311 H301 H314 H318 H317			

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
50-00-0	200-001-8	Formaldehyde ... %	< 0.1 %
	inhalation: LC50 = < 463 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); dermal: ATE = 300 mg/kg; oral: LD50 = 460 mg/kg Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 5 - < 25 Eye Irrit. 2; H319: >= 5 - < 25 Skin Sens. 1; H317: >= 0,2 - 100 STOT SE 3; H335: >= 5 - 100		

Further Information

No information available.

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

Take off contaminated clothing and wash it before reuse.

Provide fresh air.

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Remove person to fresh air and keep comfortable for breathing. Put victim at rest, cover with a blanket and keep warm. If unconscious but breathing normally, place in recovery position and seek medical advice.

After contact with skin

Take off contaminated clothing and wash it before reuse.

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

If skin irritation occurs: Get medical advice/attention.

After contact with eyes

Protect uninjured eye. Rinse immediately carefully and thoroughly with eye-bath or water. (10-15 min) In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Let 1 glass of water be drunken in little sips (dilution effect). Never give anything by mouth to an unconscious person or a person with cramps.

Do NOT induce vomiting.

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

Reference to other sections: 2, 11

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures
5.1. Extinguishing media

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Suitable extinguishing media

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

Unsuitable extinguishing media

No information available.

5.2. Special hazards arising from the substance or mixture

No known hazardous decomposition products.

5.3. Advice for firefighters

The product is not: Combustible

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

See protective measures under point 7 and 8.
Wear personal protection equipment (refer to section 8).
Provide adequate ventilation. Do not breathe dust.
Avoid dust formation. Measures to prevent aerosol and dust generation
Clear spills immediately.
Avoid contact with skin, eyes and clothes.

For non-emergency personnel

Remove persons to safety. Keep away from unprotected people. Keep upwind.

For emergency responders

Knock down dust with water spray jet. The danger areas must be delimited and identified using relevant warning and safety signs.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

For containment

Stop leak if safe to do so.
Take up dust-free and set down dust-free.
Take up mechanically, placing in appropriate containers for disposal.
Dispose of waste according to applicable legislation.
Don't store containers without labelling.

For cleaning up

For cleaning up: Clean with detergents. Avoid solvent cleaners.
Do not use a brush or compressed air for cleaning surfaces or clothing.
Use approved industrial vacuum cleaner for removal.

Other information

Provide fresh air.

Refer to manufacturer or supplier for information on recovery or recycling.

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

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Advice on safe handling

Wear personal protection equipment (refer to section 8).
Avoid contact with skin, eyes and clothes.
Always close containers tightly after the removal of product.
dust formation/ Avoid dust formation. Measures to prevent aerosol and dust generation
Floors, walls and other surfaces in the hazard area must be cleaned regularly.
Ventilate affected area. In case of inadequate ventilation wear respiratory protection.
Carry out filling operations only at stations with exhaust ventilation facilities.
Avoid release to the environment. Do not allow to enter into surface water or drains.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500. (Germany)
Work in well-ventilated zones or use proper respiratory protection.
Only wear fitting, comfortable and clean protective clothing.
Avoid contact with skin, eyes and clothes.
When using do not eat, drink, smoke, sniff.
Wash hands before breaks and after work.
Take off contaminated clothing and wash it before reuse.
Make available sufficient washing facilities
Apply skin care products after work.

Further information on handling

Obtain, read and follow all safety instructions before use.
Observe technical data sheet.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container.
Keep container tightly closed and in a well-ventilated place.
Store in a dry place.
Restrict access to stockrooms.
Unsuitable container/equipment material: Aluminium

Hints on joint storage

Keep away from: Food and feedingstuffs
Do not store together with: Reducing agent, strong
Aluminium Powder

Further information on storage conditions

Keep away from: Humidity

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
-	Dust, inhalable	-	10		TWA (8 h)	WEL
-	Dust, respirable	-	4		TWA (8 h)	WEL
50-00-0	Formaldehyde	2	2.5		TWA (8 h)	WEL
		2	2.5		STEL (15 min)	WEL
13463-67-7	Titanium dioxide, respirable	-	4		TWA (8 h)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
13463-67-7	titanium dioxide			
Worker DNEL, long-term		inhalation	local	1,25 mg/m ³
Consumer DNEL, long-term		oral	systemic	700 mg/kg bw/day
50-00-0	Formaldehyde ... %			
Worker DNEL, long-term		inhalation	systemic	9 mg/m ³
Worker DNEL, long-term		inhalation	local	0,375 mg/m ³
Worker DNEL, acute		inhalation	local	0,75 mg/m ³
Worker DNEL, long-term		dermal	systemic	240 mg/kg bw/day
Worker DNEL, long-term		dermal	local	0,037 mg/cm ²
Consumer DNEL, long-term		inhalation	systemic	3,2 mg/m ³
Consumer DNEL, long-term		inhalation	local	0,1 mg/m ³
Consumer DNEL, long-term		dermal	systemic	102 mg/kg bw/day
Consumer DNEL, long-term		dermal	local	0,012 mg/cm ²
Consumer DNEL, long-term		oral	systemic	4,1 mg/kg bw/day

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PNEC values

CAS No	Substance	
Environmental compartment		Value
13463-67-7	titanium dioxide	
Freshwater		0,184 mg/l
Freshwater (intermittent releases)		0,193 mg/l
Marine water		0,018 mg/l
Freshwater sediment		1000 mg/kg
Marine sediment		100 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		100 mg/kg
50-00-0	Formaldehyde ... %	
Freshwater		0,44 mg/l
Freshwater (intermittent releases)		4,44 mg/l
Marine water		0,44 mg/l
Freshwater sediment		2,3 mg/kg
Marine sediment		2,3 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,19 mg/l
Soil		0,2 mg/kg

Additional advice on limit values

Abbreviations and acronyms: Germany

A: respirable fraction

E: inhalable fraction

Y: A risk of reproductive effects needs not to be feared if the occupational exposure limit value (AGW) and the biological limit value (BGW) is kept

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

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

Individual protection measures, such as personal protective equipment

Eye/face protection

Dust protection eye glasses EN 166

Hand protection

By long-term hand contact: Tested protective gloves must be worn (EN ISO 374).

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Suitable material: NBR (Nitrile rubber)

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Thickness of the glove material, Breakthrough times and swelling properties of the material must be taken into consideration. Replace when worn.

Skin protection

Wear suitable protective clothing. (dust-tight)

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Respiratory protection

Respiratory protection necessary at: exceeding exposure limit values, insufficient ventilation, dust formation
Use appropriate respiratory protection. Full-/half-/quarter-face masks (EN 136/140) P1+A Formaldehyd
Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Thermal hazards

No information available.

Environmental exposure controls

Clear spills immediately.
Keep container tightly closed.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid (Powder)	
Colour:	white	
Odour:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability:		Non-flammable.
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		No data available
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		No data available
Water solubility:		poorly soluble
Solubility in other solvents		
No data available		
Partition coefficient n-octanol/water:		No data available
Vapour pressure:		No data available
Density:		No data available
Relative vapour density:		No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive

Sustaining combustion:

No data available

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Oxidizing properties

The product is not: oxidising

Other safety characteristics

Evaporation rate:

No data available

Solid content:

100%

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

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Flow time:

No data available

Further Information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No known hazardous reactions.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Explosion hazard with: Aluminium Powder (Heat)

10.4. Conditions to avoid

Avoid dust formation.

10.5. Incompatible materials

Strong acid
Reducing agent, strong
Aluminium Powder,

10.6. Hazardous decomposition products

No information available.

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
50-00-0	Formaldehyde ... %					
	oral	LD50 mg/kg	460	Rat	Kefo J Med 24: 19-37 (1975)	OECD Guideline 401
	dermal	ATE mg/kg	300			
	inhalation (4 h) vapour	LC50 mg/l	< 463	Rat	Study report (2015)	OECD Guideline 403
	inhalation dust/mist	ATE	0,05 mg/l			

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: 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

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Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: 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.

11.2. Information on other hazards
Endocrine disrupting properties

No information available.

Further information

Calculation method.

SECTION 12: Ecological information
12.1. Toxicity

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

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
50-00-0	Formaldehyde ... %					
	Acute fish toxicity	LC50 mg/l	27,57	96 h	Ictalurus punctatus	Prog.Fish-Cult. 20(1):8-15 (1958) acute toxicity test; "static bioassay"
	Acute algae toxicity	ErC50 mg/l	3,48	72 h	Desmodesmus subspicatus	Ecotoxicol Environ Safety 54: 346-354 (2) OECD Guideline 201
	Acute crustacea toxicity	EC50	5,8 mg/l	48 h	Daphnia pulex	Water, Air and Soil Pollution 97, 315-32 OECD Guideline 202
	Fish toxicity	NOEC mg/l	>= 48	28 d	Oryzias latipes	NTIS (ed.) Compendium of the FY1988 and OECD Guideline 215
	Crustacea toxicity	NOEC mg/l	>= 6,4	21 d	Daphnia magna	Study report (2008) OECD Guideline 211
	Acute bacteria toxicity	EC50)	19 mg/l (3 h	Activated sludge	Chemosphere 14, 1239-1251 (1985) OECD Guideline 209

12.2. Persistence and degradability

Product/Substance is inorganic.

12.3. Bioaccumulative potential

No information available.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
50-00-0	Formaldehyde ... %	0,35

BCF

CAS No	Chemical name	BCF	Species	Source
50-00-0	Formaldehyde ... %	< 1	Paralichthys olivaceus and Sebastes schlegeli	Aquaculture 194, 253

12.4. Mobility in soil

No information available.

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12.5. Results of PBT and vPvB assessment

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

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Water solubility: practically insoluble

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

Recycle according to official regulations.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Non hazardous waste according to Directive 2008/98/EC (waste framework directive).

List of Wastes Code - residues/unused products

170802 CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES); gypsum-based construction material; gypsum-based construction materials other than those mentioned in 17 08 01

Contaminated packaging

Dispose of waste according to applicable legislation.

Recycle according to official regulations.

Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

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

Inland waterways transport (ADN)

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

Marine transport (IMDG)

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

Air transport (ICAO-TI/IATA-DGR)

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

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

Other applicable information

No information available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

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EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 28, Entry 75

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

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Classification according to Regulation (EC) No 1272/2008 [CLP]

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

DIRECTIVE (EU) 2018/851 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2018 amending Directive 2008/98/EC on waste

DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives

Council Directive 89/654/EEC of 30 November 1989 concerning the minimum safety and health requirements for the workplace (first individual directive within the meaning of Article 16 (1) of Directive 89/391/EEC)

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

Additional information

Germany

Ordinance on systems for handling water-polluting substances (AwSV)

Hazardous Substances Ordinance (GefStoffV)

TRGS 201 TRGS 220 TRGS 400 TRGS 402 TRGS 500 TRGS 509 TRGS 510 TRGS 900

15.2. Chemical safety assessment

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

Formaldehyde ... %

SECTION 16: Other information

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Abbreviations and acronyms

Acute Tox: Acute toxicity
Skin Corr: Skin corrosion
Eye Dam: Eye damage
Skin Sens: Skin sensitisation
Muta: Germ cell mutagenicity
Carc: Carcinogenicity
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 concernant 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 Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
CLP: Classification, labelling and Packaging
CAS-No.: Chemical Abstracts Service
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
EG-No: European Inventory of Existing Chemical Substances" (EINECS)
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
SVHC: Substance of Very High Concern
TWA: time-weighted-average
WEL: working place exposure limits
TRGS: Technische Regeln für Gefahrstoffe

Key literature references and sources for data

<https://www.reach-clp-biozid-helpdesk.de/DE/Home>
ECHA

Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.

Safety Data Sheet

according to UK REACH Regulation

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EUH210 Safety data sheet available on request.
EUH212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

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