

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 19.03.2024 Version number 2 Revision: 19.03.2024

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

- . 1.1 Product identifier
- . Trade name Dreibettmasse®
- . Article number: 16100003/16103006/16101200/16101050/16101040/16101048
- . 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
Application of the substance / the mixture Auxiliary for dental technology
For the production of dental prostheses in the dental laboratory For the production of a refractory mould
- . 1.3 Details of the supplier of the safety data sheet
- . Manufacturer/Supplier:
Klasse 4 Dental GmbH, Bismarckstraße 21, D-86159 Augsburg, info@klasse4.de, www.klasse4.de
- . Information: product information: +49 821 608914-0
- . 1.4 Emergency telephone number:
Phone: +49 821 608914-0
*This number is only obtainable during office hours
(Monday - Thursday 8.00 a.m. - 4.30 p.m., Friday 8.00 a.m. - 2.00 p.m.)*
24h Emergency: Please also contact the national emergency numbers.

SECTION 2: Hazards identification

- . 2.1 Classification of the substance or mixture
- . Classification according to Regulation (EC) No 1272/2008
STOT RE 1 H372 Causes damage to the lung through prolonged or repeated exposure. Route of exposure: Inhalation.
- . 2.2 Label elements
- . Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the GB CLP regulation.
- . Hazard pictograms



GHS08

- . Signal word Danger
- . Hazard-determining components of labelling:
Quartz (SiO₂)
cristobalite
- . Hazard statements
H372 Causes damage to the lung through prolonged or repeated exposure. Route of exposure: Inhalation.
- . Precautionary statements P260 Do not breathe dust.
P284 [In case of inadequate ventilation] wear respiratory protection.
P314 Get medical advice/attention if you feel unwell.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: Composition/information on ingredients

- . 3.2 Chemical characterisation: Mixtures
- . Description: Blend of quartz and cristobalite powder, ammonium phosphate and magnesium oxide.

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. **Dangerous components:**

CAS: 14808-60-7	Quartz (SiO ₂)	25-<50%
EINECS: 238-878-4	STOT RE 2, H373	
CAS: 14808-60-7	Quartz (SiO ₂)	10-<25%
EINECS: 238-878-4	STOT RE 1, H372	
CAS: 14464-46-1	cristobalite	10-<25%
EINECS: 238-455-4	STOT RE 2, H373	
CAS: 1309-48-4	magnesium oxide	2.5-<10%
EINECS: 215-171-9	substance with a Community workplace exposure limit	

. Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- . 4.1 Description of first aid measures
- . General information No special measures required.
- . After inhalation : Supply fresh air; consult doctor in case of symptoms.
- . After skin contact :
Wash with water and soap.
The product is not skin irritating.
- . After eye contact : Rinse opened eye for 15 minutes under running water. If symptoms persist, consult doctor.
- . After swallowing :
Rinse out mouth and then drink plenty of water (approx. 500 ml). In case of persistent symptoms consult doctor.
- . 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 agents
Use fire fighting measures that suit the environment.
CO₂, extinguishing powder or water jet. Fight larger fires with foam.
- . 5.2 Special hazards arising from the substance or mixture
Fire can cause release of :
Nitrogen oxides (NO_x)
Ammonia (NH₃)
- . 5.3 Advice for firefighters
- . Protective equipment: No special measures required.

SECTION 6: Accidental release measures

- . 6.1 Personal precautions, protective equipment and emergency procedures Avoid causing dust.
Use breathing protection against the effects of fumes/dust/aerosol. Wear protective clothing.
- . 6.2 Environmental precautions: No special measures required.
- . 6.3 Methods and material for containment and cleaning up: Collect mechanically.
Dispose of contaminated material as waste according to section 13.
- . 6.4 Reference to other sections
See section 7 for information on safe handling
See section 8 for information on personal protection equipment.

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See Section 13 for information on disposal.

SECTION 7: Handling and storage

- . 7.1 Precautions for safe handling Prevent formation of dust.
Provide suction extractors if dust is formed.
Ensure that suitable extractors are available on processing machines
Wear breathing protection when decanting larger quantities without extractor facilities. Use appropriate industrial vacuum cleaners or central vacuum systems for dust removal.
- . Information about protection against explosions and fires: The product is not flammable
No special measures required.
- . 7.2 Conditions for safe storage, including any incompatibilities
- . Storage
- . Requirements to be met by storerooms and containers: No special requirements.
- . Information about storage in one common storage facility: Not required.
. Further information about storage conditions: Store in cool, dry conditions in well sealed containers.
- . 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- . 8.1 Control parameters
- . Components with critical values that require monitoring at the workplace:
14808-60-7 Quartz (SiO₂)
BOELV (European Union) Long-term value: 0.1* mg/m³ *respirable fraction
14808-60-7 Quartz (SiO₂)
BOELV (European Union) Long-term value: 0.1* mg/m³ *respirable fraction
1309-48-4 magnesium oxide
WEL (Great Britain) Long-term value: 10* 4** mg/m³
(as Mg) *inhalable dust **fume and respirable dust
- . Additional information: The lists that were valid during compilation were used as a basis.
- . 8.2 Exposure controls
- . Personal protective equipment
- . General protective and hygienic measures
The usual precautionary measures should be adhered to in handling the chemicals.
Wash hands during breaks and at the end of the work.
Do not inhale dust / smoke / mist.
Avoid contact with the eyes.
Vacuum clean contaminated clothing. Do not blow or brush off contamination.
- . Breathing equipment:
Use breathing protection in case of insufficient ventilation.
Short term filter device: ABEK-filter
Filter P2.
- . Protection of hands: Not required.
- . Material of gloves not applicable
- . Penetration time of glove material not applicable
- . Eye protection: Safety glasses (DIN 58211, EN 166)

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- . Body protection: Light weight protective clothing

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SECTION 9: Physical and chemical properties

- . 9.1 Information on basic physical and chemical properties
- . General Information
- . Appearance:

Form:	Solid
Colour:	Whitish
- . Smell:

Odour:	Odourless
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- . Odour threshold: not applicable
- . pH-value at 20 °C: 6 (Suspension)
- . Change in condition

Melting point/freezing point:	>1,400 °C
Initial boiling point and boiling range:	>999 °C
- . Flash point: Not applicable
- . Inflammability (solid, gaseous) not applicable
- . Auto-ignition temperature: not applicable
- . Decomposition temperature: not determined
- . Explosive properties: Product is not explosive.
- . Critical values for explosion:

Lower:	not applicable
Upper:	not applicable
- . Dust explosion class:

Oxidising properties	none
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- . Steam pressure: Not applicable. not applicable
- . Density at 20 °C: 1.15 g/cm³
- . Evaporation rate: not applicable
- . Solubility in / Miscibility with

Water:	Unsoluble
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- . Partition coefficient: n-octanol/water: not determined
- . Viscosity:

dynamic:	Not applicable. not applicable
kinematic:	Not applicable. not applicable
- . Solvent content:

Water:	0.0 %
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- . Solids content: 100.0 %
- . 9.2 Other information No further relevant information available.

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SECTION 10: Stability and reactivity

- . 10.1 Reactivity No hazardous reactions when stored and handled according to instructions.
- . 10.2 Chemical stability
- . Thermal decomposition / conditions to be avoided: none
- . 10.3 Possibility of hazardous reactions No dangerous reactions known
- . 10.4 Conditions to avoid No further relevant information available.
- . 10.5 Incompatible materials: void
- . 10.6 Hazardous decomposition products: At preheating temperature (250-300°C) slight odour like ammonia.

SECTION 11: Toxicological information

- . 11.1 Information on toxicological effects
- . Acute toxicity Based on available data, the classification criteria are not met.
- . LD/LC50 values that are relevant for classification:

7722-76-1 ammonium dihydrogenorthophosphate

Oral LD50 >2,001 mg/kg (rat)

Dermal LD50 >5,001 mg/kg (rat)

- . Primary irritant effect:

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

- . Serious eye damage/irritation Moderate irritation

- . Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

- . Subacute to chronic toxicity: Do not breathe dust.

Harmful: possible risk of irreversible effects through inhalation.

- . Additional toxicological information:

- . Repeated dose toxicity

Contact with skin and eyes may cause mechanical irritation. Prolonged and/or intense exposure to dust containing alveolar crystalline silica may cause silicosis.

- . CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction) No further relevant information available.

- . 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

Causes damage to the lung through prolonged or repeated exposure. Route of exposure: Inhalation.

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

SECTION 12: Ecological information

- . 12.1 Toxicity

- . Aquatic toxicity:

7722-76-1 ammonium dihydrogenorthophosphate

LC50 (96 h) (static) >100 mg/L (rainbow trout)

NOEC (static) 85.9 mg/L (rainbow trout)

- . 12.2 Persistence and degradability No further relevant information available.

- . Other information: Easy elimination possible by flocculation or adsorption by sludge.

- . 12.3 Bioaccumulative potential No further relevant information available.

- . 12.4 Mobility in soil No further relevant information available.

- . Ecotoxicological effects:

- . Other information:

No AOX

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No VOC (0%) according to EC-directive 1999/13/EC

- . Additional ecological information:
- . General notes:
Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
- . 12.5 Results of PBT and vPvB assessment
- . PBT: Not applicable.
- . vPvB: Not applicable.
- . 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- . 13.1 Waste treatment methods
- . Recommendation:
Can be deposited with household garbage after consulting with the operator of the waste disposal facility and the pertinent authorities and under adherence to the necessary technical regulations.
- . Uncleaned packaging:
- . Recommendation:
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.
Packagings that cannot be cleaned are to be disposed of in the same manner as the product. Dispose of packaging according to regulations on the disposal of packagings.
- . Recommended cleaning agent: Water, if necessary with cleaning agent.

SECTION 14: Transport information

. 14.1 UN-Number	Void
. ADR/RID/ADN, IMDG, IATA	Void
. 14.2 UN proper shipping name	Void
. ADR/RID/ADN, IMDG, IATA	Void
. 14.3 Transport hazard class(es)	Void
. ADR/RID/ADN, IMDG, IATA	Void
. Class	Void
. 14.4 Packing group	Void
. ADR/RID/ADN, IMDG, IATA	Void
. 14.5 Environmental hazards:	Not applicable.
. 14.6 Special precautions for user	Not applicable.
. 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
. Transport/Additional information:	Not dangerous according to the above regulations.
. UN "Model Regulation":	Void

SECTION 15: Regulatory information

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

. Poisons Act

. Regulated explosives precursors

None of the ingredients is listed.

. Regulated poisons

None of the ingredients is listed.

. Reportable explosives precursors

None of the ingredients is listed.

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. Reportable poisons

None of the ingredients is listed.

. Directive 2012/18/EU

. Named dangerous substances - ANNEX I None of the ingredients is listed.

. National regulations

. Information about limitation of use: Employment restrictions concerning young persons must be observed.

. Other regulations, limitations and prohibitive regulations

The general dust exposure limit of 1.25 mg/m³, measured as alveolic part has to be observed (German TRGS 900, 2015).

. Chemical inventories: All ingredients listed in: Europe

(EINECS): yes

(AICS): yes

Japan (ENCS): yes

China (IECSC): yes

Korea (KECI): yes

USA (TSCA): yes

Philippines (PICCS): yes

. 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. Relevant phrases

H372 Causes damage to organs through prolonged or repeated exposure.

H373 May cause damage to organs through prolonged or repeated exposure.

. Department issuing data specification sheet:

. Contact:

sales manager

info@klasse4.de

. Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

. Sources: source ECHA: European Chemicals Agency, <http://echa.europa.eu/>

. * Data compared to the previous version altered.