

Material Safety Data Sheet

According to 91/155/EG

Printing date: 15/12/2011



Trade name: **Zubler® 144 Investment Powder** Article number: 898/2035

1. Identification of substance/mixture and of the company/undertaking

- **Product identifier**

Trade name: **Zubler® 144**

Article number: 898/2035

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

- **Application of the substance / the preparation**

Dental impression material

Auxiliary for dental technology

Processing aid

- **Supplier/ Manufacturer:**

Zubler Gerätebau GmbH/

Buchbrunnenweg 26

D-89081 Ulm/ Germany

Phone +49 731 1452-40 or -0

- **Information:**

Business Unit Investment / Technical Support

Works Ulm Phone +49 731 1452 -0

- **Emergency information:**

Works Ulm Phone +49 731 1452 -0

2. Hazards identification

- **Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xn; Harmful

R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.

- **Information concerning particular hazards for human and environment:**

Contains quartz. Do not inhale dust.

May cause lung injury (Silicosis/lung cancer)

- **Classification system:**

This product is not listed in EC directive 93/72/EC.

Labelled on the basis of internal knowledge.

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

- **Label elements**

- **Labelling according to EU guidelines:**

Observe the normal safety regulations when handling chemicals.

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

- **Code letter and hazard designation of product:**



Xn Harmful

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- **Hazard-determining components of labelling:**
Quartz (SiO₂)
cristobalite
- **Risk phrases:**
48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- **Safety phrases:**
2 Keep out of the reach of children.
22 Do not breathe dust.
38 In case of insufficient ventilation, wear suitable respiratory equipment.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3. Composition / information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Designation:** Void
- **Identification number(s):**
- **EINECS Number:** Void
- **Chemical characterization: Mixtures**
- **Description:**
Blend of quartz and cristobalite powder, ammonium phosphate and magnesium oxide.
- **Dangerous components:**

CAS: 14808-60-7	Quartz (SiO ₂)	50-100%
EINECS: 238-878-4	Xn R48/20 GHS08 STOT RE 2, H373	
CAS: 14464-46-1	cristobalite	10-25%
EINECS: 238-455-4	Xn R48/20 GHS08 STOT RE 2, H373	
CAS: 1309-48-4	magnesium oxide	2.5-10%
EINECS: 215-171-9		

4. First aid measures

- **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 several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing :** Rinse out mouth and then drink plenty of water:
In case of persistent symptoms, consult doctor.

5. Fire fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**
Use fire fighting measures that suit the environment.
CO₂, extinguishing powder or water jet. Fight larger fires with foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **Special hazards arising from the substance or mixture**
Fire can cause release of :
Nitrogen oxides (NO_x)
Ammonia (NH₃)

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6. Accidental release measures

- **Person-related safety precautions:**
Avoid causing dust.
Use breathing protection against the effects of fumes/dust/aerosol.
Wear protective clothing.
- **Environmental precautions: No special measures required.**
- **Methods and material for containment and cleaning up:**
Collect mechanically.
Dispose of contaminated material as waste according to item 13.
- **Reference to other sections**
See Section 8 for information on personal protection equipment.

7. Handling and storage

- **Handling**
- **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.
- **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.
- **VCI-Storage class 13**

8. Exposure controls and personal protection

- **Additional information about design of technical systems:**
No further data; see item 7.
- **Control parameters**
- **Components with critical values that require monitoring at the workplace:**
- **1309-48-4 magnesium oxide**
WEL (Great Britain) Long-term value: $10^* 4^{**} \text{ mg/m}^3$
(as Mg) *inhalable dust **fume and respirable dust
- **Additional information:**
The lists that were valid during compilation were used as a basis.
- **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.

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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)

- **Body protection:** Light weight protective clothing

9. Physical and chemical properties:

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Solid

Colour: Whitish

- **Smell:** Odourless

- **pH-value (10 g/l) at 20°C:** ca. 6 (Suspension)

- **Change in condition**

Melting point/Melting range: > 1400°C

Boiling point/Boiling range: Not applicable

- **Flash point:** Not applicable

- **Ignition temperature:** Not applicable

- **Decomposition temperature:** Not determined

- **Danger of explosion:** Product is not explosive.

- **Critical values for explosion:**

Oxidizing properties: None

- **Density**

Settled apparent density at 20°C: 1100 - 1200 kg/m³

- **Solubility in / Miscibility with**

Water: Insoluble

10. Stability and reactivity

- **Reactivity**

- **Chemical stability**

- **Thermal decomposition / conditions to be avoided:** None

- **Possibility of hazardous reactions** No dangerous reactions known

- **Incompatible materials:** Void

- **Hazardous decomposition products:**

At preheating temperature (250-300°C) slight odour like ammonia.

11. Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **Primary irritant effect:**

- **On the skin:** No irritant effect.

- **On the eye:** Moderate irritation

- **Sensitization:** No sensitizing effect known.

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- **Subacute to chronic toxicity**
Do not breathe dust.
Harmful: possible risk of irreversible effects through inhalation.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
Harmful

12. Ecological information:

- **Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **Persistence and degradability**
- **Other information:**
Inorganic salts are basically not biodegradable.
Easy elimination possible by flocculation or adsorption by sludge.
- **Ecotoxicological effects:**
- **Other information:**
No AOX
No VOC according to EC-directive 1999/13/EC
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

13. Disposal considerations

- **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.
- **European waste catalogue**
16 03 03 inorganic wastes containing dangerous substances
- **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.

14. Transport information

- **Special precautions for user:** Not applicable.
- **Transport/Additional information:**
Not dangerous according to the above regulations.

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15. Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Designation according to EC guidelines:**
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- **Code letter and hazard designation of product:**
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- **Hazard-determining components of labelling:**
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38 In case of insufficient ventilation, wear suitable respiratory equipment.
- **National regulations**
- **Information about limitation of use:**
Employment restrictions concerning young persons must be observed.
- **Decree to be applied in case of technical fault:**
Major accidents hazards regulation, annex:
not applicable (German regulation)
- **Water hazard class:** WGK 1 : low water hazard risk (German regulation)
- **Other regulations, limitations and prohibitive regulations**
UVV "Protection against harmful mineral dust"(VBG 119) (German regulation)
The general dust exposure limit of 3 mg/m³, measured as alveolic part has to be observed (German TRGS 900, 2006).
- **Chemical safety assessment:**
A Chemical Safety Assessment has not been carried out.

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**
H373 May cause damage to organs through prolonged or repeated exposure.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- **Department issuing data specification sheet:**
Product Safety and Regulatory Affairs
- **Contact:**
Kurt Zubler
kurtzubler@aol.com
- **Abbreviations and acronyms:**
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)