

MATERIAL SAFETY DATA SHEET (According to 91/155 EC)

Products: Hinrivest G, Thermal

data for printing: 14.08.03

reviewd on: 09.08.02

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

Product information:

Product names of gypsum bound investments: **Hinrivest G, Thermal**

Manufacturer/supplier:

ERNST HINRICHS GMBH

Dental and gypsum products

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2. Composition / information on ingredients

Chemical properties (component substances): Calcium sulphate hemihydrate

BaSO₄, SiO₂, Al₂, Fe₂O₃, CaO, MgO, TiO₂, CaSO₄

Dangerous contents: Quartz (CAS-No. 14808-60-7) and cristobalite (CAS-No.: 14464-46-1)
as fine dust

3. Hazards identification

Description of dangers: Harmful to health on inhalation; contains silicogenous dust, long-term effect by inhalation can trigger lung disease.

Special guidelines concerning dangers to humans and the environment: none

4. First-aid measures

No particular measures required.

If substance has been swallowed: drink plenty of water and consult doctor.

If eye contact: Wash out with plenty of water and consult doctor

Inhalation: With high dust concentration, an adequate supply of fresh air should be ensured, and affected persons should be removed from severely exposed areas. If complaints persist, please see a doctor.

5.Fire-fighting measures

Suitable quenching agents: All suitable quenching agents, product itself is not combustible.

Unsuitable quenching agents: none

Particular danger caused by material, its combustion products or gases produced: none

Special protective equipment: none

Additional advice: Product gets hard when contact with water is given.

6. Accidental release measures

Procedure for cleaning / absorption: absorb mechanically, take up in a dry state

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7. Handling and storage

Handling: No particular measures required if used correctly.

Storage: Store in a dry place. Storage class VCI 13 / non-combustible solid substance

8. Exposure controls / personal protection

Technical measures: Use suction in the workplace. Destroy muzzles after pouring under special dust-protection measures, e.g. flowing water. Open sachet with a scissors to prevent dust. **Components with critical values that require monitoring at the workplace:**

1309-48-4 magnesium oxide OES Long-term value: $10^* 4^{**} \text{ mg/m}^3$

*total inhalable dust **fume and respirable dust

Additional information: The lists that were valid during compilation were used as a basis.

Personal protective equipment: respiratory protection, e.g. use fine dust mask P2. Wear head protection and working clothes and wash regularly.

Personal Protective Clothing: Observe general measures for protection and hygiene. Maintain general dust limit value of 6 mg / cubic metre

9. Physical and chemical properties

Form:	Powder	Colour:	white or colored
Odour:	odourless	Change of state:	not applicable

Thermal decomposition of gypsum:

into CaSO_4 and H_2O above approx. 140°C (413 K)

into CaO and SO_3 above approx. 1000°C (1273 K)

Flammability:	not applicable	Ignition temperature:	not applicable
Spontaneous ignition:	not applicable	Danger of explosion:	not applicable
Oxidizing properties:	none	Vapour pressure:	not applicable
Density:	$\text{CaSO}_4 \cdot x \text{H}_2\text{O}$ ($x = 1/2$) /	approx. $3,07 \text{ g/cm}^3$	
Solubility:	approx. 2 g/l		
pH value:	approx. 7		
Remark:	Product is not combustible.		

10. Stability and reactivity

Conditions to be avoided: Avoid contact between unbound powder and water prior to use.

Substances to be avoided: none known

Dangerous products of decomposition: none

11. Toxicological information

Acute toxicity: The product is not toxic. Based on long-term experience and current information, the product is not harmful to health provided that it is handled and used properly and that dust protection measures are complied with. Subacute to chronic toxicity:

Do not breathe dust. Harmful: possible risk of irreversible effects through inhalation.

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12. Ecological information

The product is mainly composed of natural minerals. Water hazard category (WHC): 0 (self-classification)

13. Disposal considerations

Product Dentalhartgips: waste disposal No.: 101206 (European Waste Catalogue)

Contaminated packaging: Contaminated containers: contact manufacturer. Contaminated bags or other packaging should ideally be emptied; it then can be recycled after having been decontaminated.

14. Transport information

Not regulated by national or international transportation regulations.

15. Regulatory information

Labelling according to EU-directives: Label code: contains quartz; do not inhale dust

Restrictions governing application and sale: none

National legislation shall apply for the following substances / components / products of decomposition: Quartz- and cristobalite fine dust

National regulations

Germany:

Calcium sulphate is not to be labelled by the regulation on hazardous substances (GefStoffV).

TRGS 900: CaSO₄

MAK value = 6 mg/m³

Calcium sulphate: Water pollution class (WGK) = 1

Code 325, listed substance VwVwS, 17.05.1999 (BANz. 98a, 29.05.1999)

16. Other information

All informations based on our last knowlegde and discribed the product only with regard to the safety requests.