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

ERNST HINRICHS GmbH Dental- und Gipspräparate

Date of printing: 13.07.2009 reviewed on: 29.05.2009

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

Product name: Hinrisol

Manufacturer/supplier:

ERNST HINRICHS GMBH Dental and gypsum products Borsigstrasse 1 D-38644 Goslar Tel. +49 (0) 53 21- 5 06 24, 5 06 25

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2. Composition / information on ingredients

Chemical characteristics:

Polydimethylsiloxane with functional groups in isopropanol

Hazardous ingredients (EU):

CAS-No.: 67-63-0 Material: Isopropanol Content: until < 20,0 %

Warning Label (EU), Symbol: F, Xi R-Phrases 11-36-67

3. Hazards identification

Critical hazards to man and environment:

R-Phrase: R11

Description: Highly flammable.

4. First-aid measures

- 4.1 General information: -
- 4.2 After inhalation: Provide fresh air.
- 4.3 After contact with the skin: Immediately rinse with plenty of soap and water.
- 4.4 After contact with the eyes: Rinse immediately with plenty of water for 10-15 minutes and seek medical advice.
- 4.5 After swallowing: Do not induce vomiting. Danger of aspiration. Seek medical advice and clearly identify substance.

5. Fire-fighting measures

- Suitable extinguishing media: plenty of water, dry powder, sand, alcohol-resistant foam, carbon dioxide.
- Extinguishing media which must not be used for safety reasons: 5.2
- 5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:
- 5.4 Special protective equipment for fire fighting: Use respiratory protection independent of recirculated air.

6. Accidental release measures

- Personal precautions: Wear personal protective suit (see section 8.3).
- Environmental precautions: Do not introduce into sewer system or in shore-waters. Observe local 6.2 bye-laws.
- 6.3 Methods for cleaning up: Absorb mechanically and dispose of according to regulations. Dilute with plenty of water and dispose of accordingly.
- 6.4 Further information: Eliminate all sources of ignition

7. Handling and storage

Handling

Precautions for safe handling: Ensure adequate ventilation. Must be syphoned off in situ. Precautions against fire and explosion: Keep away from sources of ignition and do not smoke. Take precautionary measures against static discharges. Cool endangered containers with water. Formation of explosive mixtures with air, also in empty, uncleaned containers. Keep away from heat, open flames, sparks and other sources of ignition.

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7.2 Storage:

Conditions for storage rooms and vessels: Protect against light.

Advice for storage of incompatible materials: - Further information for storage: Store cool.

8. Exposure controls / personal protection

8.1 Further information for system design and engineering measures: Observe information in section 7.

8.2 Associate substances with specific control parameters such as limit values

TVL values:

CAS-No. Material Type mg/m³ ppm E/A fibre/m³

8.3 <u>Personal protection equipment</u>

General protection and hygiene measures: Avoid contact with eyes and skin. Do not breathe vapours.

Respiratory protection: not required.

Hand protection: PVC gloves.

Eye protection: protective goggles recommended.

9. Physical and chemical properties

Form: liquid
Colour: colourless
Odour: mild
Flash point: 3 °C
Ignition temperature: 325 °C

Lower explosion point: approx. 2,0 % (V)
Upper explosion point approx. 12 % (V)
Density: 0,77 g/cm³ at 23 °C
Solubility in water: virtually insoluble

pH value: 8

Viscosity: 5,7 mPa*s

Further information:

Thermal decomposition: not applicable

10. Stability and reactivity

- 10.1 General information: If stored and handled in accordance with standard industrial practices no hazardous reactions are known.
- 10.2 Conditions to avoid: -
- 10.3 Materials to avoid: -
- 10.4 Hazardous decomposition products: If stored and handled in accordance with standard industrial practices and local regulations where applicable: none known.

11. Toxicological information

- 11.1 General information: Product not investigated.
- 11.2 Acute toxicity: -
- 11.3 Further toxicological information: According to the literature Isopropanol (67-63-0) acts irritating on mucous membranes, slightly irritating on the skin, it causes degreasing of the skin and is narcotic.

12. Ecological information

- 12.1 Information on elimination (persistence and degradability):
- 12.2 Behaviour in environmental compartiments:

Further information: Bioaccumulation improbable

12.3 Ecotoxicological effects:

Effects in sewage treatment plants (bacteria toxicity: respiration-/reproduction inhibition):

Do not introduce large amounts into purification plants.

12.4 Further ecological information:

General information: Do not introduce into waters.

13. Disposal considerations

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13.1 Material:

Recommendation: Dispose of according to regulations by incineration in a special waste incinerator. Observe local bye-laws.

13.2 Contaminated packaging:

Recommendation: Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/national bye-laws.

14. Transport information

14.1 Land transport GGVS/ADR and GGVE/RID:

Road GGVS/ADR:

Valuation: Hazardous material

Class: 3
Item: 3
Letter: B
Hazard No.: 33
UN No.: 1993

N.O.S.-item: Entzündbarer flüssiger Stoff, n.a.g.

Technical name: Enthält Hexamethyldisiloxan und 2-Propanol

Hazard label: **TL: inflammable liquid

a-Marginal no: Materials in combined packaging, with up to 3 litres per inner pack, and up to 12 litres per outer pack.

Railway GGVE/RID:

Valuation: Hazardous material

Class: 3
Item: 3
Letter: B
Hazard No.: 33
UN No.: 1993

N.O.S.-item: Entzündbarer flüssiger Stoff, n.a.g.

Technical name: Enthält Hexamethyldisiloxan und 2-Propanol

Hazard label: **TL: inflammable liquid Express: up to 6 l per container

a-Marginal no: Materials in combined packaging, with up to 3 litres per inner pack, and

up to 12 litres per outer pack.

14.2 Inland navigation GGVBinsch/ADNR

14.3 Transport by sea GGVSee/IMDG-Code

Valuation: Hazardous material

Class: 3.2 Page: 3230 Packaging Group: II UN No.: 1993

Correct technical name

Proper Shipping name: Flammable liquid, n.o.s.

Technical name: contains hexamethyldisiloxaneand 2-propanol

Label: **TL: inflammable liquid/3

EmS No.: 3-07 MFAG No.: 305 Marine Pollutant: no

14.4 Air transport ICAO-TI/IATA-DGR

Valuation: Hazardous material

Class: 3
Packaging Group: II
UN No.: 1993
Correct technical name

Proper Shipping name: Flammable liquid, n.o.s.

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Technical name: contains hexamethyldisiloxaneand 2-propanol

Packing regulations:

PAC: 305 Max.net: 5 I CAO: 307 Max.net: 60 I Label: ** HL: This way up

** TL: inflammable liquid/3

14.5 Transport/further information:

Postal and courier service: German postal dispatch - 250 ccm per container / 2000 ccm per

package

15. Regulatory information

15.1 Warning Label (EU): "F" - High Flammable



R-Phrase: RI1 Description: Highly flammable.

S-Phrase: S7/9 Description: Keep container tightly closed and in a well ventilated place.

S16 Description: Keep away from sources of ignition - No smoking.

S23 Description: Do not breathe vapour.

S33 Description: Keep precautionary measures against static discharges.

15.2 National regulations:

16. Other information

Material:

The above information describes exclusively the safety requirements of the product(s) and is based on our present-day knowledge. It does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations. Properties of the product are to be found in the respective product leaflet.

n.a. = not applicable n.s. = not subject to