



According to Regulation (EC) No. 1907/2006  
Date of issue: 02.04.2013

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**Hinrivest Liquid**

**1. Identification of the substance / Preparation and Company:**

Identification of the substance or preparation:

Commercial product name: Hinrivest Liquid

Company / Manufacturer: ERNST HINRICHS Dental GmbH  
Borsigstr. 1  
D - 38644 Goslar  
0 53 21 / 5 06 24  
0 53 21 / 5 08 81  
info@hinrichs-dental.de / www.hinrichs-dental.de

**2. Hazards Identification:**

- |     |   |  |
|-----|---|--|
| 2.1 | Classification of the substance or mixture Classification (REGULATION (EC) No 1272/2008):<br>Classification (67/548/EEC, 1999/45/EC): | Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.<br><br>Not a hazardous substance or mixture according to EC directives 67/548/EEC or 1999/45/EC.  |
| 2.2 | Label elements<br>Labelling (REGULATION (EC) No 1272/2008):   | Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.   |
| 2.3 | Other hazards:<br>PBT and vPvB assessment :   | No further data available.<br>This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).<br>This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB). |

**3. Composition / Information on Ingredients:**

- |     |  |   |
|-----|--|---|
| 3.1 | Mixtures:<br>Remarks :   | No dangerous ingredients according to Directive 67/548/EEC.   |
|     | Silicon dioxide, amorphous OEL   | 7631-86-9 30 - 60<br>231-545-4<br>01-<br>2119379499-<br>16  |
|     | OEL:<br>Candidate List of Substances of Very High Concern for Authorisation:<br>Candidate List of Substances of Very High Concern for Authorisation: | Occupational exposure limit.<br>This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57). |

**4. First aid measures:**

- |     |   |  |
|-----|---|--|
| 4.1 | Description of first aid measures<br>General advice:<br>After inhalation:<br><br>After skin contact:<br>After eye contact:<br><br>After swallowing: | No hazards which require special first aid measures.<br>If breathed in, move person into fresh air. If symptoms persist, call a physician.<br>Remove contaminated clothing. Rinse with water.<br>Rinse with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing.<br><br>Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. |
| 4.2 | Most important symptoms and effects, both acute and delayed:<br>Symptoms:<br>Risks:   | No information available.<br>No information available.   |
| 4.3 | Indication of any immediate medical attention and special treatment needed:<br>Treatment:   | Treat symptomatically.   |



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**5. Fire Fighting measures:**

- 5.1 Suitable extinguishing agents: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- 5.2 Special hazards arising from the substance or mixture: No hazards to be specially mentioned.
- 5.3 Protective equipment: In the event of fire, wear self-contained breathing apparatus.  
Further information : Standard procedure for chemical fires.

**6. Accidental release measures:**

- 6.1 Person-related safety precautions: No conditions to be specially mentioned.
- 6.2 Measures for environmental protection: No special environmental precautions required.
- 6.3 Measures for cleaning / collecting: Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum.
- 6.4 Reference to other sections: For personal protection, see section 8.

**7. Handling and Storage:**

- 7.1 Handling:  
Information for safe handling: For personal protection, see section 8. No special handling advice required. Advice on protection against fire and explosion.  
Information about fire- and explosion protection: Normal measures for preventive fire protection.
- 7.2 Storage:  
Requirements to be met by storerooms and receptacles: Keep container tightly closed in a dry and well-ventilated place. Store in closed dark containers made of anti-corrosive material.  
Information about storing in one common storage facility: No special restrictions on storage with other products.  
German storage class: Non-combustible Liquids.  
Minimum storage temperature: Avoid temperatures below: 5 °C  
Maximum storage temperature: 50 °C  
Other data: No decomposition if stored and applied as directed.  
Specific end use(s): No information available.

**8. Exposure controls / Personal protection:**

8.1 Control parameters

Components with workplace control parameters:

Components	CAS-No.	Value	Control parameters	Update	Basis	Form of exposure
Silicon dioxide, amorphous	7631-86-9	AGW	4 mg/m <sup>3</sup>	2011-04-12	DE TRGS 900	Inhalable fraction

Further Information: DFG: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  
2: Colloidal amorphous silica, including pyrogenic silica and in wet processes manufactured silica (precipitated silica, silicagel).  
Y: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child

STEL: Short term exposure limit.  
TWA: Time Weighted Average (TWA).

- 8.2 Exposure controls:  
Engineering Controls: Effective exhaust ventilation system.  
Personal protective equipment: The usual precautionary measures are to be adhered to when handling chemicals.  
General protective and hygienic measures:



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Respiratory protection:	No personal respiratory protective equipment normally required.
Protection of hands:	PVC Rubber gloves.
Eye protection:	Safety glasses.
Hygiene measures:	General industrial hygiene practice.
Environmental exposure controls:	
General advice:	No special environmental precautions required.

**9. Physical and chemical properties:**

9.1	General information:	
	Form:	liquid
	Colour:	white
	Odour:	odourless
	Odour threshold:	No data available.
	pH-value:	9 - 10
	Melting point / Melting range:	0°C
	Boiling point / Boiling range:	100°C
	Flash point:	Not applicable.
	Evaporation rate:	No data available.
	Flammability (solid, gas):	The product is not flammable.
	Lower explosion limit :	Not applicable.
	Upper explosion limit :	Not applicable.
	Vapour pressure:	Approx. 23 hPa at 20°C
	Relative vapour density:	No data available.
	Relative density:	1,100 - 1,400
	Water solubility:	dispersible
	Solubility in other solvents:	No data available.
	Partition coefficient: n octanol/water:	Not applicable.
	Auto-ignition temperature:	Not applicable.
	Decomposition temperature:	No data available.
	Viscosity, dynamic:	< 20 mPa.s
	Viscosity, kinematic:	No data available.
	Explosive properties:	Not explosive.
	Oxidizing properties:	Not classified as oxidising.
9.2	This safety datasheet only contains information relating to safety and does not replace any product information or product specification.	

**10. Stability and Reactivity:**

10.1	Reactivity:	Stable under normal conditions.
10.2	Chemical stability:	Stable under recommended storage conditions.
10.3	Possibility of hazardous reactions:	No dangerous reaction known under conditions of normal use.
10.4	Conditions to avoid:	Avoid drying out of the solution as this can lead to a build up of dust.
10.5	Incompatible materials:	Materials to avoid : Mild steel, Aluminium, Copper
10.6	Hazardous decomposition products:	No hazardous decomposition products are known.
	Thermal decomposition:	No data available.

**11. Toxicological Information:**

Product information	
Hazard Summary:	
Inhalation:	May cause respiratory tract irritation.
Skin:	Causes mild skin irritation.
Eyes:	May cause eye irritation.
Ingestion:	May cause irritation of the mucous membranes.



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Toxicology Assessment:

Further information:

Information given is based on data on the components and the toxicology of similar products.

11.1 Information on toxicological effects

Test result:

Acute oral toxicity:

LD50: > 5 000 mg/kg

Species: rat

The value is estimated from tests on similar products.

Sensitisation:

Did not cause sensitisation on laboratory animals.

Method: (Magnusson-Kligman):

The value is estimated from tests on similar products.

Germ cell mutagenicity:

Genotoxicity in vitro:

Ames test

negative

Method: OECD Guide-line 471 - Bacterial Reverse Mutation Test

The value is estimated from tests on similar products.

Silicon dioxide, amorphous:

Acute oral toxicity :

LD50: > 10 000 mg/kg

Species: rat

**12. Ecological Information:**

Product information:

Ecotoxicology Assessment:

Results of PBT assessment:

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

None known.

Additional ecological information:

12.1 Toxicity

Test result:

Toxicity to fish:

LC50: > 5 000 mg/l

Exposure time: 96 h

Species: Danio rerio (zebra fish)

The value is estimated from tests on similar products.

Toxicity to daphnia and other aquatic invertebrates:

EC50: 7 600 mg/l

Exposure time: 48 h

Species: Ceriodaphnia Dubia (water flea)

The value is estimated from tests on similar products.

Toxicity to algae:

NOEC: 60 mg/l

Exposure time: 48 h

Species: Selenastrum capricornutum (green algae)

The value is estimated from tests on similar products.

EC50: 120 mg/l

Exposure time: 48 h

Species: Selenastrum capricornutum (green algae)

The value is estimated from tests on similar products.

EC10: 140 mg/l

Exposure time: 48 h

Species: Selenastrum capricornutum (green algae)

The value is estimated from tests on similar products.

12.2 Persistence and degradability

Product information:

Biodegradability:

Not applicable – inorganic.



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12.3	Bioaccumulative potential Product information: Bioaccumulation:	No bioaccumulation is expected.
12.4	Mobility in soil Product information: Mobility:  Distribution among environmental compartments:	No test results. Under extreme circumstances, transport from earth to water may take place. Transport to air is not expected.
12.5	Results of PBT and vPvB assessment Product information: PBT and vPvB assessment :	This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).
12.6	Other adverse effects Product information: Biochemical Oxygen Demand (BOD):	No data available.
<b>13. Disposal Considerations:</b>		
13.1	Waste treatment methods - Contaminated packaging:	Empty remaining contents. Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>14. Transport Information:</b>		
14.1	UN-Number: ADR, ADN, IMDG, IATA:	Not dangerous goods.
14.2	UN proper shipping name: ADR, ADN, IMDG, IATA:	Not dangerous goods.
14.3	Transport hazardous class: ADR, ADN, IMDG, IATA:	Not dangerous goods.
14.4	Packing group: ADR, IMDG, IATA:	Not dangerous goods.
14.5	Environmental hazards: Marine pollutant:	Not dangerous goods.
14.6	Special precautions for user:	Not classified as dangerous in the meaning of transport regulations.
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	No data available.
<b>15. Regulatory Information:</b>		
15.1	Safety, health and environmental regulations / legislation specific for the substance or mixture: Major Accident Hazard Legislation:  Water contaminating class (Germany): TA Luft List (Germany):	96/82/EC - Update: 2003 Directive 96/82/EC does not apply. NWG not water endangering. -Total dust: not applicable - Inorganic substances in powdered form: not applicable - Inorganic substances in vapour or gaseous form: not applicable - Organic Substances: not applicable - Carcinogenic substances: not applicable - Mutagenic: not applicable - Toxic to reproduction: not applicable



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Notification status: CH INV : YES. The formulation contains substances listed on the Swiss Inventory  
TSCA : YES. All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.  
DSL : YES. All components of this product are on the Canadian DSL.  
AICS : YES. On the inventory, or in compliance with the inventory.  
NZIoC : YES. On the inventory, or in compliance with the inventory.  
ENCS : YES. On the inventory, or in compliance with the inventory.  
ISHL : YES. On the inventory, or in compliance with the inventory.  
KECI : YES. On the inventory, or in compliance with the inventory.  
PICCS : YES. On the inventory, or in compliance with the inventory.  
IECSC : YES. On the inventory, or in compliance with the inventory.

For explanation of abbreviation see section 16.

Further information: This product is to be considered as a preparation according to EU-legislation.

15.2 Chemical Safety Assessment:  
Silicon dioxide, amorphous : A Chemical Safety Assessment is not required for this substance.

**16. Further Information:**

This information is based on our present knowledge. However this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

16.1 Full text of H-Statements referred to under sections 2 and 3.

Explanations for possible abbreviations mentioned in section 2

PBT: Persistent, bioaccumulative and toxic.  
vPvB: Very persistent and very bioaccumulative.  
OEL: Occupational exposure limit.

16.2 Further abbreviations and acronyms:

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".  
ICAO: International Civil Aviation Organization.  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization".

16.3 Notification status explanation:

CH INV: Switzerland. New notified substances and declared preparations.  
TSCA: United States TSCA Inventory.  
DSL: Canadian Domestic Substances List (DSL).  
AICS: Australia Inventory of Chemical Substances (AICS).  
NZIoC: New Zealand. Inventory of Chemical Substances.  
ENCS: Japan. ENCS - Existing and New Chemical Substances Inventory.  
ISHL: Japan. ISHL - Inventory of Chemical Substances (METI).  
KECI: Korea. Korean Existing Chemicals Inventory (KECI).  
PICCS: Philippines Inventory of Chemicals and Chemical Substances (PICCS).  
IECSC: China. Inventory of Existing Chemical Substances in China (IECSC).