

Safety Data Sheet (91/155/EEC)

Material: 00259453 Vertex-Dental Putty 1:1 B

Version: 1.1 (REG_EUROPE) GM March 2007

1 Identification of the substance/preparation and company

1.1 Name of substance/preparation

Commercial product name: Vertex-Dental Putty 1:1 B

1.2 Use of substance / preparation:

Dental
elastomer products

1.3 Company name

Manufacturer/distributor: Vertex-Dental B.V.
Street/POB-No.: P.O.box 10
State/postal code/city: 3700 AA Zeist
Telephone: +31306976749
Telefax: +31306955188

	Telefax	Telephone
Information about the Safety Data Sheet:	+31306955188	+31306976749

1.4 Emergency telephone number

	Emergency Number
Emergency Information (German):	Works Fire Brigade
Emergency Information (internat.):	National Response Center

2 Composition/information on ingredients

2.1 Chemical characterization (preparation):

Chemical characteristics
Polydimethylsiloxane with functional groups + auxiliaries for addition cross-linking

3 Hazards identification

3.1 Classification:

R-Phrase	Description
R-	-

3.2 Further hazards to man and environment:

Danger of oxyhydrogen gas formation with water, alcohols, acids, metallic salts, amines and alkalis.

4 First-aid measures

4.1 General information:

In case of accident or if you feel unwell seek medical advice (show label or SDS where possible).

4.2 After inhalation:

Material cannot be inhaled under normal conditions.

4.3 After contact with the skin:

Wipe off excess material with cloth or paper. Wash with plenty of water or water and soap. In the event of a visible skin change or other complaints, seek medical advice (show label or SDS where possible).

4.4 After contact with the eyes:

Rinse immediately with plenty of water. Seek medical advice in case of continuous irritation.

4.5 After swallowing:

Give several small portions of water to drink. Do not induce vomiting.

5 Fire-fighting measures

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- 5.1 Suitable extinguishing media:**
alcohol-resistant foam , carbon dioxide , sand . Hydrogen gas can become trapped under foam blankets, so sources of ignition must be eliminated during the clean-up and recovery process.
- 5.2 Extinguishing media which must not be used for safety reasons:**
water , extinguishing powder , halones .
- 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

- 6.1 Personal precautions:**
Secure the area. Wear personal protection equipment (see section 8). If material is released indicate risk of slipping.
- 6.2 Environmental precautions:**
Prevent material from entering surface waters, drains or sewers and soil.
- 6.3 Methods for cleaning up:**
Take up mechanically and dispose of according to local/state/federal regulations. Use vented recovery containers. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner. Apply sand or other inert granular material to improve traction.
- 6.4 Further information:**
Eliminate all sources of ignition. Material designated for disposal must be segregated from incompatible substances or materials specified in Sect. 10.2. Do not blend contaminated material with uncontaminated material. Observe notes under section 7.

7 Handling and storage

7.1 Handling

Precautions for safe handling:

Use caution when opening any bulging container. Wear all appropriate protective equipment. Work in an open area away from other materials, operations, and sources of ignition. Open slowly to allow a gradual release of pressure. Ensure adequate ventilation. Keep container closed when not in use. Keep away from incompatible substances in accordance with section 10.2. Where possible, inert process equipment and blanket vessels, tanks and containers with nitrogen to reduce the available oxygen level. Contact Vertex-Dental for additional publications on the safe Handling of SiH Products.

Precautions against fire and explosion:

Product can release hydrogen. In partly emptied containers formation of explosive mixtures is possible. Keep away from sources of ignition and do not smoke. Keep away from open flames, heat and sparks. Take precautionary measures against electrostatic charging.

7.2 Storage

Conditions for storage rooms and vessels:

none known

Advice for storage of incompatible materials:

Do not store with: basic substances (e.g. alkalis, ammonia, amines) , oxidizing agents , strong acids .

Further information for storage:

Protect against moisture. Store in a dry and cool place. Store container in a well ventilated place.

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8 Exposure controls and personal protection equipment

8.1 Exposure limits

Maximum airborne concentrations at the workplace: not applicable

8.2 Exposure limited and controlled

8.2.1 Exposure in the work place limited and controlled

General protection and hygiene measures:

Do not eat, drink or smoke when handling. Wash hands at the end of work and before eating.

Personal protection equipment

Respiratory protection:

not required .

Hand protection:

Recommendation: Protective gloves made of butyl rubber , protective gloves coated with neoprene , PVC gloves . Gloves suitable for up to 60 minutes' use.

Eye protection:

protective goggles .

8.2.2 Exposure to the environment limited and controlled:

Prevent material from entering surface waters and soil.

9 Physical and chemical properties

9.1 General information

Physical state / form.....: paste
Colour.....: blue
Odour.....: odourless

9.2 Important information about the protection of health, safety and the environment

Method
(67/548/EEC) :

Melting point / melting range.....: not applicable
Boiling point / boiling range.....: not applicable
Flash point.....: > 200 °C
Ignition temperature: > 400 °C
Lower explosion limit (LEL).....: not applicable
Upper explosion limit (UEL).....: not applicable
Vapour pressure.....: not applicable
Density.....: 1,56 g/cm³ at 23 °C
Water solubility / miscibility.....: virtually insoluble
pH-Value.....: 7
Viscosity (dynamic).....: > 20000 mPa*s at 20 °C

(BROOKFIELD)

9.3 Other information

According to previous experience autoignition of SiH containing products on a catalytically active surface may occur at a much lower temperature than expected. This applies to porous or fibrous substances including those with alkaline surfaces, such as thermal insulation and cementaceous insulating materials. Explosion limits for released hydrogen: 4 - 75.6%(V). Re 9.2 pH Value: Product displays neutral reaction.

10 Stability and reactivity

10.0 General information:

Stable under normal conditions of use. In contact with incompatible substances this material may quickly generate a large volume of flammable hydrogen gas.

10.1 Conditions to avoid:

moisture . Heat, open flames, and other sources of ignition. Contact with contaminated piping or vessels or with corroded and rusty containers can increase the rate of hydrogen formation. Observe information in section 7.

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10.2 Materials to avoid:

Reacts with: acids , basic substances (e.g. alkalis, ammonia, amines) , alcohols , water , moisture , oxidizing agents , catalyst . Reaction causes the formation of: hydrogen .

10.3 Hazardous decomposition products:

Releases flammable Hydrogen Gas. Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 °F) through oxidation.

11 Toxicological information

11.0 General information:

According to our present state of knowledge no damaging effect expected when treated in accordance with standard industrial practices and local regulations where applicable.

11.1 Toxicological tests

Specific symptoms in animal test:

Animal test with a chemically similar product: By skin contact: Not irritating to skin. By eye contact: Slight irritation possible. Not sensitising to the skin.

Further information:

-

11.2 Experience with man:

-

11.3 Further toxicological information:

-

12 Ecological information

12.1 Ecotoxicity

Species	Test method	Exp. Time	Result	Source
rainbow trout (Oncorhynchus mykiss)	acute	96 h	> 100 mg/l (LC50)	test report
rainbow trout (Oncorhynchus mykiss)	acute	96 h	100 mg/l (NOEC)	test report

No expected damaging effects to aquatic organisms.

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

According to current knowledge adverse effects on water purification plants are not expected.

12.2 Mobility

-

12.3 Persistence and degradability

Biodegradation / further information:

Biologically not degradable. Polydimethylsiloxanes are degradable to a certain extent in abiotic processes.

Further information:

Elimination by adsorption to activated sludge.

12.4 Bio-accumulation potential

Bioaccumulation is not expected to occur.

12.5 Other harmful effects

none known

12.6 Additional information

General information:

In cross-linked state not soluble in water. Easily separable from water by filtration.

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13 Disposal considerations

13.1 Material

Recommendation:

Material that cannot be used or chemically reprocessed should be disposed of at an approved facility in accordance with any applicable governmental regulations. Material designated for disposal must be segregated from incompatible substances or materials specified in Sect. 10.2. Wastes of this material should not be mixed with other wastes. Provide measures such as vented bungs to ensure pressure relief in the waste containers.

13.2 Uncleaned packaging

Recommendation:

Containers may contain hazardous quantities of hydrogen gas. Uncleaned containers should not be reused to hold another material due to the potential for reaction between residual product and incompatible materials. Uncleaned packaging should be treated with the same precautions as the material. Containers should be completely emptied before recycling as specified in government regulations.

14 Transport information

14.1 Land transport GGVSE/ADR and RID

Road ADR:

Valuation.....: Not regulated for transport

Railway RID:

Valuation.....: Not regulated for transport

14.2 Inland navigation GGVBinsch/ADNR

14.3 Transport by sea GGVSee/IMDG-Code

Valuation.....: Not regulated for transport

14.4 Air transport ICAO-TI/IATA-DGR

Valuation.....: Not regulated for transport

14.5 Transport/further information

Postal and courier service:

The Netherlands postal dispatch.....: permitted

15 Regulatory information

15.1 Warning Label (EU)

R-Phrase	Description
R-	-
S-Phrase	Description
S-	-

15.2 National regulations:

16 Other information

16.1 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.

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16.2 Further information:

Commas appearing in numerical data denote a decimal point. Vertical lines in the left-hand margin indicate changes compared with the previous version.

n.a. = not applicable	n.s. = not subject to
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Details of international registration status

Listed on the following inventories:

AICS

IECSC

DSL

ECL

EINECS

ENCS

TSCA