

# Material Safety Data Sheet

## According to 91/155 EC

Printing date 21.08.2003

Reviewed on 16.04.2003

### 1 Identification of substance:

- **Product details:**
- **Trade name:** 2-Seal Paste A
- **Application of the substance / the preparation** root canal filling material
- **Manufacturer/Supplier:**  
VDW GmbH  
Bayerwaldstr. 15  
  
D-81737 Munich  
GERMANY  
Tel. +49-89-62734-0  
Fax: +49-89-62734-90
- **Further information obtainable from:**
  - Departement Marketing & Sales for distribution of the safety data sheets
  - **Information in case of emergency:** +49-89-62734-0

### 2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

	4,4'-(1-methylethylidene)bisphenol copolymer (MW < 700) Xi, N; R 36/38-43-51/53	25-50%
CAS: 1314-23-4 EINECS: 215-227-2	zirconium dioxide	10-25%

- **Additional information** For the wording of the listed risk phrases refer to section 16.

### 3 Hazard identification

- **Hazard description:**  
Xi Irritant  
N Dangerous for the environment
- **Information concerning to particular hazards to man and environment**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
R 36/38 Irritating to eyes and skin.  
R 43 May cause sensitisation by skin contact.  
R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Contains epoxy constituents. See information supplied by the manufacturer.
- **Classification system**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

### 4 First aid measures

- **After inhalation**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** If symptoms persist consult doctor.

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### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards caused by the substance, its products of combustion or resulting gases:**  
Formation of toxic gases is possible during heating or in case of fire.
- **Protective equipment:** Wear self-contained respiratory protective device

### 6 Accidental release measures

- **Person-related safety precautions:** Wear protective clothing.
- **Measures for environmental protection:**  
Inform respective authorities in case of seepage into water course or sewage system.
- **Measures for cleaning/collecting:** Pick up mechanically.
- **Additional information:** No dangerous substances are released.

### 7 Handling and storage

- **Handling** Product is intended for dental use only.
- **Information for safe handling:** Observe normal care for working with chemicals.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.

### 8 Exposure controls and personal protection gear

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

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· *Body protection: Protective work clothing.*

### 9 Physical and chemical properties:

#### · General Information

Form:	Pasty
Colour:	Yellow
Odour:	Characteristic

#### · Change in condition

Melting point/Melting range: undetermined  
Boiling point/Boiling range: undetermined

· Flash point: Not applicable

· Self-igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Density: Not determined

· Solubility in / Miscibility with  
Water: Insoluble

### 10 Stability and reactivity

- *Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.*
- *Dangerous reactions No dangerous reactions known*
- *Dangerous decomposition products: Void*

### 11 Toxicological information

- *Acute toxicity:*
- *Primary irritant effect:*
- *on the skin: Irritant to skin and mucous membranes.*
- *on the eye: Irritating effect.*
- *Sensitization: Sensitization possible through skin contact.*
- *Additional toxicological information:*

*Irritant*

*The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.*

### 12 Ecological information:

- *Ecotoxic effects:*
- *Remark: Toxic for fish*
- *General notes:*
- *Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.*
- *Also poisonous for fish and plankton in water bodies.*
- *Toxic for aquatic organisms*
- *Do not allow product to reach ground water, water course or sewage system, even in small quantities.*

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Trade name: 2-Seal Paste A

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### 13 Disposal considerations

- **Product:**
- **Recommendation**



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 9 (M6) Miscellaneous dangerous substances and articles.
- **Danger code (Kemler):** 90
- **UN-Number:** 3082
- **Packaging group:** III
- **Hazard label** 9

- **Maritime transport IMDG:**



- **IMDG Class:** 9
- **UN Number:** 3082
- **Label** 9
- **Packaging group:** III
- **Marine pollutant:** Yes
- **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-(1-methylethylidene)bisphenol copolymer(MW< 700))

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 9
- **UN/ID Number:** 3082
- **Label** 9
- **Packaging group:** III
- **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-(1-methylethylidene)bisphenol copolymer(MW< 700))

### 15 Regulations

- **Labelling according to EU guidelines:**  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

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Trade name: 2-Seal Paste A

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



*Xi Irritant*  
*N Dangerous for the environment*

· **Hazard-determining components of labelling:**

4,4'-(1-methylethylidene)bisphenol copolymer (MW < 700)

· **Risk phrases:**

36/38 Irritating to eyes and skin.

43 May cause sensitisation by skin contact.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Safety phrases:**

24 Avoid contact with skin.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

28 After contact with skin, wash immediately with plenty of water.

37 Wear suitable gloves.

57 Use appropriate container to avoid environmental contamination.

60 This material and its container must be disposed of as hazardous waste.

· **Special labelling of certain preparations:**

Contains epoxy constituents. See information supplied by the manufacturer.

· **National regulations**

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**16 Other 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.*

· **Relevant R-phrases**

36/38 Irritating to eyes and skin.

43 May cause sensitisation by skin contact.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

# Material Safety Data Sheet

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## 1 Identification of substance:

- **Product details:**
- **Trade name:** 2-Seal Paste B
- **Application of the substance / the preparation** root canal filling material
- **Manufacturer/Supplier:**  
VDW GmbH  
Bayerwaldstr. 15  
  
D-81737 Munich  
GERMANY  
Tel: +49-89-62734-0  
Fax: +49-89-62734-90
- **Further information obtainable from:**
  - Departement Marketing & Sales for distribution of the safety data sheets
  - **Information in case of emergency:** +49-89-62734-0

## 2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.

### Dangerous components:

CAS: 113506-22-2	N,N'-Dibenzyl-5-oxanonandiamin-1,9	Xn; R 22-36/37/38	2,5-10%
CAS: 768-94-5	amantadine	Xn; R 22-36/37/38	2,5-10%
EINECS: 212-201-2			

- **Additional information** For the wording of the listed risk phrases refer to section 16.

## 3 Hazard identification

- **Hazard description:** not applicable
- **Information concerning to particular hazards to man and environment**  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

## 4 First aid measures

- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
If symptoms persist consult doctor.

## 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **Special hazards caused by the substance, its products of combustion or resulting gases:**  
Formation of toxic gases is possible during heating or in case of fire.

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Trade name: 2-Seal Paste B

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- **Protective equipment:** Wear self-contained respiratory protective device

### 6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:** Pick up mechanically.
- **Additional information:** See Section 7 for information on safe handling

### 7 Handling and storage

- **Handling** Product is intended for dental use only.
- **Information for safe handling:**  
Observe normal care for working with chemicals.  
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.

### 8 Exposure controls and personal protection gear

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**  
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

### 9 Physical and chemical properties:

#### · General Information

<b>Form:</b>	Pasty
<b>Colour:</b>	White

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Trade name: 2-Seal Paste B

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<b>Odour:</b>	Characteristic
<b>Change in condition</b> Melting point/Melting range: undetermined Boiling point/Boiling range: undetermined	
<b>Flash point:</b>	Not applicable
<b>Self-igniting:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Density:</b>	Not determined
<b>Solubility in / Miscibility with Water:</b>	Insoluble

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous decomposition products:** Irritant gases/vapours

**11 Toxicological information**

- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** The unpolymerized product may be irritant to the skin for susceptible persons.
  - **on the eye:** Irritating effect.
- **Sensitization:** Sensitizing effect by skin contact is possible by prolonged exposure.
- **Additional toxicological information:**  
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.  
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

**12 Ecological information:**

- **General notes:**  
Do not allow product to reach ground water, water course or sewage system.  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

**13 Disposal considerations**

- **Product:**
- **Recommendation**



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

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**14 Transport information**

- Land transport ADR/RID (cross-border)
- ADR/RID class: -

- Maritime transport IMDG:
- IMDG Class: -
- Marine pollutant: No

- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class: -

**15 Regulations**

- Labelling according to EU guidelines:  
Observe the general safety regulations when handling chemicals  
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
- Special labelling of certain preparations:  
Contains TCD-diamin. May produce an allergic reaction.
- National regulations
- Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

**16 Other 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.*

- Relevant R-phrases  
22 Harmful if swallowed.  
36/37/38 Irritating to eyes, respiratory system and skin.