

Material Safety Data Sheet

According to 91/155 EC

Printing date 13.10.2003

Reviewed on 14.07.2003

1 Identification of substance:

- **Product details:**
- **Trade name:** Dycal Base
- **Application:** Base paste
- **Application of the substance / the preparation** Material for pulp capping
- **Manufacturer/Supplier:**
DENTSPLY DeTrey GmbH
De-Trey-Str. 1
D-78467 Konstanz
GERMANY
Tel.: +49-7531-583-0
Fax: +49-7531-583-104
- **Further information obtainable from:**
 - Departement Analytical Research / Research & Development for technical information
 - Departement Marketing & Sales for distribution of the safety data sheets

2 Composition/Data on components:

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

- **Dangerous components:**

CAS: 73240-13-8	1,3- Butylenglykoldisalicylat	Xi; R 36/38	25-50%
CAS: 1314-13-2 EINECS: 215-222-5	zinc oxide	N; R 50/53	2.5-10%

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

5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, 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.

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Trade name: *Dycal Base*

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

6 Accidental release measures

- **Person-related safety precautions:** *Not required.*
- **Measures for environmental protection:**
Inform respective authorities in case of seepage into water course or sewage system.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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:** *Keep receptacle tightly sealed.*

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 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.*

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9 Physical and chemical properties:

· General Information

Form:	Pasty
Colour:	Dark
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 at 20°C:** 1.98 g/cm³

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix

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:** No dangerous decomposition products known

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
 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.
 Irritant

12 Ecological information:

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

13 Disposal considerations

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



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

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Trade name: *Dycal Base*

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

14 Transport information

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

15 Regulations

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

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



Xi Irritant
N Dangerous for the environment

- **Risk phrases:**
36/38 Irritating to eyes and skin.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Safety phrases:**
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.
- **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.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Department issuing MSDS:** Analytical Research
- **Contact:** HotLine for urgent technical support: +49-7531-583-333

Material Safety Data Sheet

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1 Identification of substance:

- **Product details:**
- **Trade name:** Dycal Catalyst
- **Application:** Catalyst paste
- **Application of the substance / the preparation** Material for pulp capping
- **Manufacturer/Supplier:**
DENTSPLY DeTrey GmbH
De-Trey-Str. 1
D-78467 Konstanz
GERMANY
Tel.: +49-7531-583-0
Fax: +49-7531-583-104
- **Further information obtainable from:**
 - Departement Analytical Research / Research & Development for technical information
 - Departement Marketing & Sales for distribution of the safety data sheets

2 Composition/Data on components:

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

- **Dangerous components:**

CAS: 1305-62-0 EINECS: 215-137-3	calcium dihydroxide	Xi; R 41	50-100%
CAS: 1314-13-2 EINECS: 215-222-5	zinc oxide	N; R 50/53	2.5-10%

- **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 41 Risk of serious damage to eyes.
R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **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; 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. Then consult a doctor.
- **After swallowing**
Rinse out mouth and then drink plenty of water.
Call a doctor immediately.

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Trade name: Dycal Catalyst

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5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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:** None.

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**
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
- **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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles.

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Trade name: *Dycal Catalyst*

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· **Body protection:** *Protective work clothing.*

9 Physical and chemical properties:

· General Information

Form:	<i>Pasty</i>
Colour:	<i>White</i>
Odour:	<i>Odourless</i>

· 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 at 20°C:** *1.82 g/cm³*

· Solubility in / Miscibility with

Water: *Not miscible or difficult to mix*

· **pH-value at 20°C:** *11.5*

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:** *No dangerous decomposition products known*

11 Toxicological information

· **Acute toxicity:**

· **Primary irritant effect:**

· **on the skin:** *may cause skin irritation*

· **on the eye:** *Strong irritant with the danger of severe eye injury.*

· **Sensitization:** *No sensitizing effects known.*

· **Additional toxicological information:**

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.

Irritant

12 Ecological information:

· **Ecotoxicological effects:**

· **Remark:** *Toxic for fish*

· **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

GB

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Trade name: Dycal Catalyst

(Contd. of page 3)

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:** 8 (C6) Corrosive substances.
- **Danger code (Kemler):** 80
- **UN-Number:** 3262
- **Packaging group:** II
- **Hazard label:** 8

- **Maritime transport IMDG:**



- **IMDG Class:** 8
- **UN Number:** 3262
- **Label:** 8
- **Packaging group:** II
- **EMS Number:** F-A,S-B
- **Marine pollutant:** No
- **Proper shipping name:** CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (calcium dihydroxide)

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



- **ICAO/IATA Class:** 8
- **UN/ID Number:** 3262
- **Label:** 8
- **Packaging group:** II
- **Proper shipping name:** CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (calcium dihydroxide)

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: *Dycal Catalyst*

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· **Code letter and hazard designation of product:***Xi Irritant**N Dangerous for the environment*· **Risk phrases:**

41 Risk of serious damage to eyes.

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.

39 Wear eye/face protection.

57 Use appropriate container to avoid environmental contamination.

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

· **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**

41 Risk of serious damage to eyes.

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Department issuing MSDS:** Analytical Research· **Contact:** HotLine for urgent technical support: +49-7531-583-333

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