

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 27.06.2013


Version number 6

Revision: 27.06.2013

## 1 Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Calibra Base Paste
- **Application:** *Esthetic Resin Cement*
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
*No further relevant information available.*
- **Application of the substance / the preparation** *Esthetic Resin Cement*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*DENTSPLY DeTrey GmbH*  
*De-Trey-Str. 1*  
*D-78467 Konstanz*  
*GERMANY*  
*Tel.: +49-(0)7531-583-0*  
*Fax: +49-(0)7531-583-104*  
*email: KonstanzDEU.info-sdb@dentsply.com*
- **Further information obtainable from:**
  - *Departement Analytical Research / Research & Development for technical information*
  - *Departement Marketing & Sales for distribution of the safety data sheets*
- **1.4 Emergency telephone number:** +49-(0)7531-583-0 8:00 - 17:00 (GMT + 1:00)

## 2 Hazards identification

- **2.1 Classification of the substance or mixture**
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
*Xi; Irritant*  
*R36/37/38: Irritating to eyes, respiratory system and skin.*
  - *Xi; Sensitising*  
*R43: May cause sensitisation by skin contact.*
  - **Information concerning particular hazards for human 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.*
  - **Classification system:**  
*The classification is according to the latest editions of the EU-lists, and extended by company and literature data.*
  - **2.2 Label elements**
  - **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*
- **Hazard-determining components of labelling:**  
*2,2'-Ethylendioxydiethylmethacrylat*
  - **Risk phrases:**  
*36/37/38 Irritating to eyes, respiratory system and skin.*  
*43 May cause sensitisation by skin contact.*

(Contd. on page 2)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 27.06.2013

Version number 6

Revision: 27.06.2013

Trade name: Calibra Base Paste


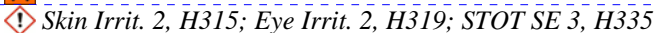
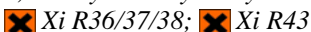
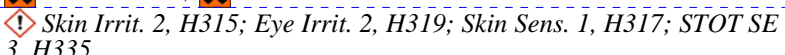
(Contd. of page 1)

- **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.
  - 60 This material and its container must be disposed of as hazardous waste.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

- **Dangerous components:**

Index number: 607-134-00-4	methacrylate with the exception of those specified elsewhere in this Annex  Xi R36/37/38  Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	10-25%
CAS: 109-16-0 EINECS: 203-652-6	2,2'-Ethylendioxydiethylmethacrylat  Xi R36/37/38; Xi R43  Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	2.5-10%

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

### 4 First aid measures

- **4.1 Description of 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. If symptoms persist, consult a doctor.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.

(Contd. on page 3)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 27.06.2013

Version number 6

Revision: 27.06.2013

Trade name: Calibra Base Paste

(Contd. of page 2)

- **5.3 Advice for firefighters**
- **Protective equipment:** Self-contained respiratory protective device.

## 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **7.1 Precautions for safe handling** Observe normal care for working with chemicals.
- **Handling** Product is intended for dental use only.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **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:**  
Protect from exposure to the light.  
Keep receptacle tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

## \* 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **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.
- **8.2 Exposure controls**
- **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:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.  
Not necessary if room is well-ventilated.

(Contd. on page 4)

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 27.06.2013

Version number 6

Revision: 27.06.2013

**Trade name: Calibra Base Paste**

(Contd. of page 3)

**· Protection of hands:**

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**· Material of gloves**

Natural rubber, NR

Recommended thickness of the material:  $\geq 0.12$  mmPermeation: Level  $\geq 1$ 

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



Tightly sealed goggles.

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

## 9 Physical and chemical properties

**· 9.1 Information on basic physical and chemical properties****· General Information****· Appearance:**

<b>Form:</b>	Pasty
<b>Colour:</b>	According to product specification
<b>· Odour:</b>	Characteristic
<b>· Odour threshold:</b>	Not determined.

**· pH-value:** Not applicable.

**· Change in condition**

<b>Melting point/Melting range:</b>	undetermined
<b>Boiling point/Boiling range:</b>	undetermined

**· Flash point:** Not applicable

**· Flammability (solid, gaseous)** Not determined.

**· Ignition temperature:**

**Decomposition temperature:** Not determined.

**· Self-igniting:** Product is not selfigniting.

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

**· Explosion limits:**

**Lower:** Not determined.

(Contd. on page 5)

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 27.06.2013

Version number 6

Revision: 27.06.2013

**Trade name: Calibra Base Paste**

(Contd. of page 4)

<b>Upper:</b>	Not determined.
· <b>Vapour pressure:</b>	Not applicable.
· <b>Density:</b>	Not determined
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with Water:</b>	Insoluble
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>dynamic:</b>	Not applicable.
<b>kinematic:</b>	Not applicable.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Solids content:</b>	67.0 %
· <b>9.2 Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:**  
Irritant to skin and mucous membranes.  
The unpolymerized product may be irritant to the skin for susceptible persons.
- **on the eye:** Irritating effect.
- **Sensitization:**  
Sensitization possible through skin contact.  
Repeated or prolonged contact with the not polymerized product may cause sensitization for acrylates / methacrylates.
- **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

GB

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 27.06.2013

Version number 6

Revision: 27.06.2013

Trade name: Calibra Base Paste

(Contd. of page 5)

## 12 Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**



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

- **European waste catalogue**

18 01 06*	chemicals consisting of or containing dangerous substances
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- |   |                 |
|---|-----------------|
| · <b>14.1 UN-Number</b><br>· <b>ADR, ADN, IMDG, IATA</b>                                    | Void            |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR, ADN, IMDG, IATA</b>                      | Void            |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADR, ADN, IMDG, IATA</b><br>· <b>Class</b> | Void            |
| · <b>14.4 Packing group</b><br>· <b>ADR, IMDG, IATA</b>                                     | Void            |
| · <b>14.5 Environmental hazards:</b><br>· <b>Marine pollutant:</b>                          | No              |
| · <b>14.6 Special precautions for user</b>  | Not applicable. |

(Contd. on page 7)

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 27.06.2013

Version number 6

Revision: 27.06.2013

**Trade name: Calibra Base Paste**

(Contd. of page 6)

- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** *Not applicable.*

### **15 Regulatory information**

- **15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

### **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.*

*The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to accidents during transport or storage by the dealer.*

*For quantities of material typically used in clinical practice, information necessary for safe use and storage of the product is given in the DFU.*

- **Relevant phrases**

*H315 Causes skin irritation.*

*H317 May cause an allergic skin reaction.*

*H319 Causes serious eye irritation.*

*H335 May cause respiratory irritation.*

*R36/37/38 Irritating to eyes, respiratory system and skin.*

*R43 May cause sensitisation by skin contact.*

- **Department issuing MSDS:** *Analytical Research*
- **Contact:** *HotLine for urgent technical support: +49-7531-583-333*
- **\* Data compared to the previous version altered.**

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 27.06.2013


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Revision: 27.06.2013

## 1 Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Calibra Catalyst Paste
- **Application:** *Esthetic Resin Cement*
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
*No further relevant information available.*
- **Application of the substance / the preparation** *Esthetic Resin Cement*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*DENTSPLY DeTrey GmbH*  
*De-Trey-Str. 1*  
*D-78467 Konstanz*  
*GERMANY*  
*Tel.: +49-(0)7531-583-0*  
*Fax: +49-(0)7531-583-104*  
*email: KonstanzDEU.info-sdb@dentsply.com*
- **Further information obtainable from:**
  - *Departement Analytical Research / Research & Development for technical information*
  - *Departement Marketing & Sales for distribution of the safety data sheets*
- **1.4 Emergency telephone number:** +49-(0)7531-583-0 8:00 - 17:00 (GMT + 1:00)

## 2 Hazards identification

- **2.1 Classification of the substance or mixture**
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
*Xi; Irritant*  
*R36/37/38: Irritating to eyes, respiratory system and skin.*
  - *Xi; Sensitising*  
*R43: May cause sensitisation by skin contact.*
  - **Information concerning particular hazards for human 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.*
  - **Classification system:**  
*The classification is according to the latest editions of the EU-lists, and extended by company and literature data.*
  - **2.2 Label elements**
  - **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*
- **Hazard-determining components of labelling:**  
*2,2'-Ethylendioxydiethylmethacrylat*
  - **Risk phrases:**  
*36/37/38 Irritating to eyes, respiratory system and skin.*  
*43 May cause sensitisation by skin contact.*

(Contd. on page 2)



# Safety data sheet

## according to 1907/2006/EC, Article 31

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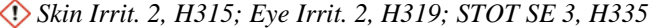
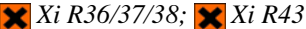
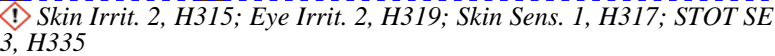
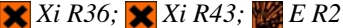
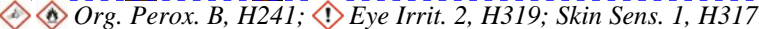
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- **Safety phrases:**
  - 24 Avoid contact with skin.
  - 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  - 28 After contact with skin, wash immediately with plenty of water.
  - 37 Wear suitable gloves.
  - 60 This material and its container must be disposed of as hazardous waste.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

- **Dangerous components:**

Index number: 607-134-00-4	methacrylate with the exception of those specified elsewhere in this Annex  Xi R36/37/38 	25-50%
CAS: 109-16-0 EINECS: 203-652-6	2,2'-Ethylenedioxydiethylmethacrylat  	2.5-10%
CAS: 94-36-0 EINECS: 202-327-6 Index number: 617-008-00-0	dibenzoyl peroxide  	≤ 2.5%

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

### 4 First aid measures

- **4.1 Description of 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. If symptoms persist, consult a doctor.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.

(Contd. on page 3)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 27.06.2013

Version number 6

Revision: 27.06.2013

Trade name: Calibra Catalyst Paste

(Contd. of page 2)

- **5.3 Advice for firefighters**
- **Protective equipment:** Self-contained respiratory protective device.

### 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Ensure adequate ventilation.
- **6.4 Reference to other sections**
  - See Section 7 for information on safe handling
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

### 7 Handling and storage

- **7.1 Precautions for safe handling** Observe normal care for working with chemicals.
- **Handling** Product is intended for dental use only.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
  - **Storage**
  - **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
  - **Information about storage in one common storage facility:** Store away from oxidizing agents.
  - **Further information about storage conditions:**
    - Protect from exposure to the light.
    - Keep receptacle tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **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.
- **8.2 Exposure controls**
- **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 necessary if room is well-ventilated.
- **Protection of hands:**



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

(Contd. on page 4)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 27.06.2013

Version number 6

Revision: 27.06.2013

**Trade name: Calibra Catalyst Paste**

(Contd. of page 3)

*Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*

- **Material of gloves**

Natural rubber, NR

Permeation: Level  $\geq 1$

Recommended thickness of the material:  $\geq 0.12$  mm

*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



Tightly sealed goggles.

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

## 9 Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

· <b>Form:</b>	Pasty
· <b>Colour:</b>	Various colours
· <b>Odour:</b>	Product specific
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not applicable.

- **Change in condition**

· <b>Melting point/Melting range:</b>	undetermined
· <b>Boiling point/Boiling range:</b>	undetermined

· **Flash point:** Not applicable

· **Flammability (solid, gaseous)** Not determined.

- **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

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

- **Explosion limits:**

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· **Vapour pressure:** Not applicable.

· <b>Density:</b>	Not determined
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.

(Contd. on page 5)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 27.06.2013

Version number 6

Revision: 27.06.2013

Trade name: Calibra Catalyst Paste

(Contd. of page 4)

- |   |   |
|---|---|
| · <b>Solubility in / Miscibility with Water:</b>  | <i>Insoluble</i>                                  |
| · <b>Partition coefficient (n-octanol/water):</b> | <i>Not determined.</i>                            |
| · <b>Viscosity:</b>                               |   |
| <i>dynamic:</i>                                   | <i>Not applicable.</i>                            |
| <i>kinematic:</i>                                 | <i>Not applicable.</i>                            |
| · <b>Solvent content:</b>                         |   |
| <b>Organic solvents:</b>                          | <i>0.0 %</i>                                      |
| <b>Solids content:</b>                            | <i>60.0 %</i>                                     |
| · <b>9.2 Other information</b>                    | <i>No further relevant information available.</i> |

### 10 Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **10.3 Possibility of hazardous reactions** *No dangerous reactions known*
- **10.4 Conditions to avoid** *No further relevant information available.*
- **10.5 Incompatible materials:** *No further relevant information available.*
- **10.6 Hazardous decomposition products:** *No dangerous decomposition products known*

### 11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:**  
*Irritant to skin and mucous membranes.*  
*The unpolymerized product may be irritant to the skin for susceptible persons.*
- **on the eye:** *Irritating effect.*
- **Sensitization:**  
*Sensitization possible through skin contact.*  
*Repeated or prolonged contact with the not polymerized product may cause sensitization for acrylates / methacrylates.*
- **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

- **12.1 Toxicity**
- **Aquatic toxicity:** *No further relevant information available.*
- **12.2 Persistence and degradability** *No further relevant information available.*
- **12.3 Bioaccumulative potential** *No further relevant information available.*
- **12.4 Mobility in soil** *No further relevant information available.*

(Contd. on page 6)

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 27.06.2013

Version number 6

Revision: 27.06.2013

Trade name: Calibra Catalyst Paste

(Contd. of page 5)

- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**



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

- **European waste catalogue**

18 01 06*	chemicals consisting of or containing dangerous substances
-----------	--

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

### 14 Transport information

- |   |                 |
|---|-----------------|
| · <b>14.1 UN-Number</b>   | Void            |
| · <b>ADR, ADN, IMDG, IATA</b>   | Void            |
| · <b>14.2 UN proper shipping name</b>   | Void            |
| · <b>ADR, ADN, IMDG, IATA</b>   | Void            |
| · <b>14.3 Transport hazard class(es)</b>  | Void            |
| · <b>ADR, ADN, IMDG, IATA</b>   | Void            |
| · <b>Class</b>  | Void            |
| · <b>14.4 Packing group</b>   | Void            |
| · <b>ADR, IMDG, IATA</b>  | Void            |
| · <b>14.5 Environmental hazards:</b>  | No              |
| · <b>Marine pollutant:</b>  | No              |
| · <b>14.6 Special precautions for user</b>  | Not applicable. |
| · <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |

### 15 Regulatory information

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

GB

(Contd. on page 7)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 27.06.2013

Version number 6

Revision: 27.06.2013

**Trade name: Calibra Catalyst Paste**

(Contd. of page 6)

**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.*

*The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to accidents during transport or storage by the dealer.*

*For quantities of material typically used in clinical practice, information necessary for safe use and storage of the product is given in the DFU.*

**· Relevant phrases**

H241 Heating may cause a fire or explosion.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

R2 Risk of explosion by shock, friction, fire or other sources of ignition.

R36 Irritating to eyes.

R36/37/38 Irritating to eyes, respiratory system and skin.

R43 May cause sensitisation by skin contact.

· **Department issuing MSDS:** Analytical Research

· **Contact:** HotLine for urgent technical support: +49-7531-583-333

· **\* Data compared to the previous version altered.**

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.07.2013

Version number 5

Revision: 06.03.2013

## 1 Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Calibra Try-In Paste
- **Application:** *Esthetic Resin Cement*
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
*No further relevant information available.*
- **Application of the substance / the preparation** *Esthetic Resin Cement*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*DENTSPLY DeTrey GmbH*  
*De-Trey-Str. 1*  
*D-78467 Konstanz*  
*GERMANY*  
*Tel.: +49-(0)7531-583-0*  
*Fax: +49-(0)7531-583-104*  
*email: KonstanzDEU.info-sdb@dentsply.com*
- **Further information obtainable from:**
  - *Departement Analytical Research / Research & Development for technical information*
  - *Departement Marketing & Sales for distribution of the safety data sheets*
- **1.4 Emergency telephone number:** +49-(0)7531-583-0 8:00 - 17:00 (GMT + 1:00)

## 2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** *not applicable*
- **Information concerning particular hazards for human 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.*
- **2.2 Label elements**
- **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).*
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*

## 3 Composition/information on ingredients

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

- **Dangerous components:**

CAS: 56-81-5	glycerol	substance with a Community workplace exposure limit	50-100%
EINECS: 200-289-5			

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

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 03.07.2013

Version number 5

Revision: 06.03.2013

Trade name: Calibra Try-In Paste

(Contd. of page 1)

#### 4 First aid measures

- **4.1 Description of 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.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

#### 5 Firefighting measures

- **5.1 Extinguishing media**
- **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.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Self-contained respiratory protective device.

#### 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**  
No dangerous substances are released.  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

#### 7 Handling and storage

- **7.1 Precautions for safe handling** Observe normal care for working with chemicals.
- **Handling** Product is intended for dental use only.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **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.

(Contd. on page 3)



**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 03.07.2013

Version number 5

Revision: 06.03.2013

Trade name: Calibra Try-In Paste

(Contd. of page 2)

· 7.3 Specific end use(s) No further relevant information available.

## 8 Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

### · 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

56-81-5 glycerol

WEL Long-term value: 10 mg/m<sup>3</sup>

· Additional information: The lists valid during the making were used as basis.

### · 8.2 Exposure controls

· 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.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.11$  mmPermeation: Level  $\geq 6$ 

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: Goggles recommended during refilling.

· Body protection: Protective work clothing.

## 9 Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: paste

Colour: Different according to colouring

· Odour: Mild

· Odour threshold: Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range: undetermined

Boiling point/Boiling range: undetermined

· Flash point: Not applicable

· Flammability (solid, gaseous) Not applicable.

(Contd. on page 4)

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 03.07.2013

Version number 5

Revision: 06.03.2013

**Trade name: Calibra Try-In Paste**

(Contd. of page 3)

· <b>Ignition temperature:</b>	400 °C
· <b>Decomposition temperature:</b>	Not determined.
· <b>Self-igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	2.6 Vol %
<b>Upper:</b>	11.3 Vol %
· <b>Vapour pressure:</b>	Not determined.
· <b>Density at 20 °C:</b>	1.4 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Partly soluble
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>dynamic:</b>	Not determined.
<b>kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	85.0 %
<b>Solids content:</b>	15.0 %
· <b>9.2 Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
  - strong oxidants
  - strong bases
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.

(Contd. on page 5)

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 03.07.2013

Version number 5

Revision: 06.03.2013

Trade name: Calibra Try-In Paste

(Contd. of page 4)

· **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

· **12.1 Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

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

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

## 13 Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

Can be disposed of with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Smaller quantities can be disposed of with household waste.

· **European waste catalogue**

18 01 07	chemicals other than those mentioned in 18 01 06
----------	--

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## 14 Transport information

· **14.1 UN-Number**

· **ADR, ADN, IMDG, IATA** Void

· **14.2 UN proper shipping name**

· **ADR, ADN, IMDG, IATA** Void

· **14.3 Transport hazard class(es)**

· **ADR, ADN, IMDG, IATA**

· **Class** Void

· **14.4 Packing group**

· **ADR, IMDG, IATA** Void

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 03.07.2013

Version number 5

Revision: 06.03.2013

**Trade name: Calibra Try-In Paste**

(Contd. of page 5)

- |   |                 |
|---|-----------------|
| · <b>14.5 Environmental hazards:</b>  |                 |
| · <b>Marine pollutant:</b>  | No              |
| · <b>14.6 Special precautions for user</b>  | Not applicable. |
| · <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |

### 15 Regulatory information

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 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.*

*The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to accidents during transport or storage by the dealer.*

*For quantities of material typically used in clinical practice, information necessary for safe use and storage of the product is given in the DFU.*

- **Department issuing MSDS:** Analytical Research
- **Contact:** HotLine for urgent technical support: +49-7531-583-333
- **\* Data compared to the previous version altered.**

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4

Revision: 07.03.2013


## 1 Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name: Calibra Silane Coupling Agent**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation** Silane Coupling Agent
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
DENTSPLY DeTrey GmbH  
De-Trey-Str. 1  
D-78467 Konstanz  
GERMANY  
Tel.: +49-(0)7531-583-0  
Fax: +49-(0)7531-583-104  
email: KonstanzDEU.info-sdb@dentsply.com
- **Further information obtainable from:**
  - Departement Analytical Research / Research & Development for technical information
  - Departement Marketing & Sales for distribution of the safety data sheets
- **1.4 Emergency telephone number:** +49-(0)7531-583-0 8:00 - 17:00 (GMT + 1:00)

## 2 Hazards identification

- **2.1 Classification of the substance or mixture**
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
F; Highly flammable  
R11: Highly flammable.
  - **Information concerning particular hazards for human 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.
  - **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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  - **2.2 Label elements**
  - **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:**
- 

F Highly flammable
- **Risk phrases:**  
11 Highly flammable.
  - **Safety phrases:**
    - 7/9 Keep container tightly closed and in a well-ventilated place.
    - 16 Keep away from sources of ignition - No smoking.
    - 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
    - 60 This material and its container must be disposed of as hazardous waste.
  - **2.3 Other hazards**
  - **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.

(Contd. on page 2)

GB

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4

Revision: 07.03.2013

**Trade name: Calibra Silane Coupling Agent**







(Contd. of page 1)

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

· **Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6	ethanol  F R11  Flam. Liq. 2, H225	50-100%
CAS: 67-64-1 EINECS: 200-662-2	acetone  Xi R36;  F R11 R66-67  Flam. Liq. 2, H225;  Eye Irrit. 2, H319; STOT SE 3, H336	2.5-10%

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

### 4 First aid measures

- **4.1 Description of 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.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Self-contained respiratory protective device.

### 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling

(Contd. on page 3)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4

Revision: 07.03.2013

**Trade name: Calibra Silane Coupling Agent**

(Contd. of page 2)

See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **7.1 Precautions for safe handling** Observe normal care for working with chemicals.
- **Handling** Product is intended for dental use only.
- **Information about fire - and explosion protection:**



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

**64-17-5 ethanol**

WEL Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm

**67-64-1 acetone**

WEL Short-term value: 3620 mg/m<sup>3</sup>, 1500 ppm  
Long-term value: 1210 mg/m<sup>3</sup>, 500 ppm

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment**

- **General protective and hygienic measures** Wash hands before breaks and at the end of work.
- **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.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Butyl rubber, BR

Recommended thickness of the material:  $\geq 0.7$  mm

Permeation: Level  $\geq 6$

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.

(Contd. on page 4)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4

Revision: 07.03.2013

Trade name: Calibra Silane Coupling Agent

(Contd. of page 3)

· **Eye protection:**

Tightly sealed goggles.

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

## 9 Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

· <b>Form:</b>	Liquid
· <b>Colour:</b>	Clear
· <b>Odour:</b>	Alcohol-like
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.· **Change in condition**

· <b>Melting point/Melting range:</b>	undetermined
· <b>Boiling point/Boiling range:</b>	78 °C

· **Flash point:** 6 °C (c.c. Abel)· **Flammability (solid, gaseous)** Not applicable.· **Ignition temperature:** 425 °C· **Decomposition temperature:** Not determined.· **Self-igniting:** Product is not selfigniting.· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.· **Explosion limits:**

· <b>Lower:</b>	3.5 Vol %
· <b>Upper:</b>	15.0 Vol %

· **Vapour pressure at 20 °C:** 59 hPa

· <b>Density at 20 °C:</b>	0.8 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.

· **Solubility in / Miscibility with**· **Water:** Partly miscible· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**

· <b>dynamic:</b>	Not determined.
· <b>kinematic:</b>	Not determined.

· **Solvent content:**· **Organic solvents:** 98.0 %

(Contd. on page 5)



**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4

Revision: 07.03.2013

Trade name: Calibra Silane Coupling Agent

(Contd. of page 4)

· **9.2 Other information** *No further relevant information available.*

### 10 Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **10.3 Possibility of hazardous reactions** *No dangerous reactions known*
- **10.4 Conditions to avoid** *No further relevant information available.*
- **10.5 Incompatible materials:** *No further relevant information available.*
- **10.6 Hazardous decomposition products:** *No dangerous decomposition products known*

### \* 11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** *No irritant effect.*
- **on the eye:** *No irritating effect.*
- **Sensitization:** *No sensitizing effects known.*

### 12 Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** *No further relevant information available.*
- **12.2 Persistence and degradability** *No further relevant information available.*
- **12.3 Bioaccumulative potential** *No further relevant information available.*
- **12.4 Mobility in soil** *No further relevant information available.*
- **Additional ecological information:**
- **General notes:**
- *Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*
- **12.6 Other adverse effects** *No further relevant information available.*

### \* 13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**



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

- **European waste catalogue**

18 01 06\* *chemicals consisting of or containing dangerous substances*

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4



Revision: 07.03.2013

Trade name: Calibra Silane Coupling Agent

(Contd. of page 5)

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

· <b>14.1 UN-Number</b> · <b>ADR, IMDG, IATA</b>	UNI993
· <b>14.2 UN proper shipping name</b> · <b>ADR</b>  · <b>IMDG</b>  · <b>IATA</b>	1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL), ACETONE) FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL), ACETONE) FLAMMABLE LIQUID, N.O.S. (ETHANOL, ACETONE)
· <b>14.3 Transport hazard class(es)</b>  · <b>ADR</b>	
	
· <b>Class</b> · <b>Label</b>	3 (F1) Flammable liquids. 3
· <b>IMDG, IATA</b>	
	
· <b>Class</b> · <b>Label</b>	3 Flammable liquids. 3
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	II
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b>	Warning: Flammable liquids. 33 F-E, <u>S-E</u>
· <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Transport category</b> · <b>Tunnel restriction code</b>	1L 2 D/E

GB

(Contd. on page 7)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4

Revision: 07.03.2013

**Trade name: Calibra Silane Coupling Agent**

(Contd. of page 6)

**15 Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Information about limitation of use:** Employment restrictions concerning juveniles must be observed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**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.*

*The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to accidents during transport or storage by the dealer.*

*For quantities of material typically used in clinical practice, information necessary for safe use and storage of the product is given in the DFU.*

- **Relevant phrases**
  - H225 Highly flammable liquid and vapour.*
  - H319 Causes serious eye irritation.*
  - H336 May cause drowsiness or dizziness.*
  - R11 Highly flammable.*
  - R36 Irritating to eyes.*
  - R66 Repeated exposure may cause skin dryness or cracking.*
  - R67 Vapours may cause drowsiness and dizziness.*
- **Department issuing MSDS:** Analytical Research
- **Contact:** HotLine for urgent technical support: +49-7531-583-333
- **\* Data compared to the previous version altered.**

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4

Revision: 07.03.2013


## 1 Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name: Calibra Silane Coupling Agent**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation** Silane Coupling Agent
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
DENTSPLY DeTrey GmbH  
De-Trey-Str. 1  
D-78467 Konstanz  
GERMANY  
Tel.: +49-(0)7531-583-0  
Fax: +49-(0)7531-583-104  
email: KonstanzDEU.info-sdb@dentsply.com
- **Further information obtainable from:**
  - Departement Analytical Research / Research & Development for technical information
  - Departement Marketing & Sales for distribution of the safety data sheets
- **1.4 Emergency telephone number:** +49-(0)7531-583-0 8:00 - 17:00 (GMT + 1:00)

## 2 Hazards identification

- **2.1 Classification of the substance or mixture**
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
F; Highly flammable  
R11: Highly flammable.
  - **Information concerning particular hazards for human 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.
  - **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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  - **2.2 Label elements**
  - **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:**
- 

F Highly flammable
- **Risk phrases:**  
11 Highly flammable.
  - **Safety phrases:**
    - 7/9 Keep container tightly closed and in a well-ventilated place.
    - 16 Keep away from sources of ignition - No smoking.
    - 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
    - 60 This material and its container must be disposed of as hazardous waste.
  - **2.3 Other hazards**
  - **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.

(Contd. on page 2)

GB

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4

Revision: 07.03.2013

**Trade name: Calibra Silane Coupling Agent**







(Contd. of page 1)

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

· **Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6	ethanol  F R11  Flam. Liq. 2, H225	50-100%
CAS: 67-64-1 EINECS: 200-662-2	acetone  Xi R36;  F R11 R66-67  Flam. Liq. 2, H225;  Eye Irrit. 2, H319; STOT SE 3, H336	2.5-10%

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

### 4 First aid measures

- **4.1 Description of 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.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Self-contained respiratory protective device.

### 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling

(Contd. on page 3)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4

Revision: 07.03.2013

**Trade name: Calibra Silane Coupling Agent**

(Contd. of page 2)

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

- **7.1 Precautions for safe handling** Observe normal care for working with chemicals.
- **Handling** Product is intended for dental use only.
- **Information about fire - and explosion protection:**



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

**64-17-5 ethanol**

WEL Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm

**67-64-1 acetone**

WEL Short-term value: 3620 mg/m<sup>3</sup>, 1500 ppm  
Long-term value: 1210 mg/m<sup>3</sup>, 500 ppm

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment**

- **General protective and hygienic measures** Wash hands before breaks and at the end of work.
- **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.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Butyl rubber, BR

Recommended thickness of the material:  $\geq 0.7$  mm

Permeation: Level  $\geq 6$

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.

(Contd. on page 4)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4

Revision: 07.03.2013

Trade name: Calibra Silane Coupling Agent

(Contd. of page 3)

## · Eye protection:



Tightly sealed goggles.

## · Body protection: Protective work clothing.

## 9 Physical and chemical properties

## · 9.1 Information on basic physical and chemical properties

## · General Information

## · Appearance:

Form:	Liquid
Colour:	Clear
· Odour:	Alcohol-like
· Odour threshold:	Not determined.

· pH-value: Not determined.

## · Change in condition

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	78 °C

· Flash point: 6 °C (c.c. Abel)

· Flammability (solid, gaseous) Not applicable.

· Ignition temperature: 425 °C

· Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

## · Explosion limits:

Lower:	3.5 Vol %
Upper:	15.0 Vol %

· Vapour pressure at 20 °C: 59 hPa

· Density at 20 °C:	0.8 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

## · Solubility in / Miscibility with

Water: Partly miscible

· Partition coefficient (n-octanol/water): Not determined.

## · Viscosity:

dynamic:	Not determined.
kinematic:	Not determined.

## · Solvent content:

Organic solvents: 98.0 %

(Contd. on page 5)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4

Revision: 07.03.2013

Trade name: Calibra Silane Coupling Agent

(Contd. of page 4)

· **9.2 Other information** *No further relevant information available.*

### 10 Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **10.3 Possibility of hazardous reactions** *No dangerous reactions known*
- **10.4 Conditions to avoid** *No further relevant information available.*
- **10.5 Incompatible materials:** *No further relevant information available.*
- **10.6 Hazardous decomposition products:** *No dangerous decomposition products known*

### \* 11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** *No irritant effect.*
- **on the eye:** *No irritating effect.*
- **Sensitization:** *No sensitizing effects known.*

### 12 Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** *No further relevant information available.*
- **12.2 Persistence and degradability** *No further relevant information available.*
- **12.3 Bioaccumulative potential** *No further relevant information available.*
- **12.4 Mobility in soil** *No further relevant information available.*
- **Additional ecological information:**
- **General notes:**
- *Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*
- **12.6 Other adverse effects** *No further relevant information available.*

### \* 13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**



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

- **European waste catalogue**

18 01 06\* *chemicals consisting of or containing dangerous substances*

(Contd. on page 6)

GB



**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4



Revision: 07.03.2013

Trade name: Calibra Silane Coupling Agent

(Contd. of page 5)

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

· <b>14.1 UN-Number</b> · <b>ADR, IMDG, IATA</b>	UNI993
· <b>14.2 UN proper shipping name</b> · <b>ADR</b>  · <b>IMDG</b>  · <b>IATA</b>	1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL), ACETONE) FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL), ACETONE) FLAMMABLE LIQUID, N.O.S. (ETHANOL, ACETONE)
· <b>14.3 Transport hazard class(es)</b>  · <b>ADR</b>	
	
· <b>Class</b> · <b>Label</b>	3 (F1) Flammable liquids. 3
· <b>IMDG, IATA</b>	
	
· <b>Class</b> · <b>Label</b>	3 Flammable liquids. 3
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	II
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b>	Warning: Flammable liquids. 33 F-E, <u>S-E</u>
· <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Transport category</b> · <b>Tunnel restriction code</b>	1L 2 D/E

GB

(Contd. on page 7)

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according to 1907/2006/EC, Article 31

Printing date 08.05.2013

Version number 4

Revision: 07.03.2013

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(Contd. of page 6)

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- **Relevant phrases**
  - H225 Highly flammable liquid and vapour.*
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  - H336 May cause drowsiness or dizziness.*
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  - R67 Vapours may cause drowsiness and dizziness.*
- **Department issuing MSDS:** Analytical Research
- **Contact:** HotLine for urgent technical support: +49-7531-583-333
- **\* Data compared to the previous version altered.**

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