Printing date 29.11.2016 Version number 8 Revision: 29.11.2016

SECTION 1: Identification of the substance/mixture and of the company/undertaking

### · 1.1 Product identifier

- · Trade name: Calibra Base
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Application of the substance / the mixture Esthetic Resin Cement
- · Uses advised against No further relevant information available.
- · 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@dentsplysirona.com

- · Further information obtainable from:
- Departement 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)

### SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



GHS07

- · Signal word Warning
- · Hazard-determining components of labelling:

(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]bismethacrylate

 $Ethoxylated\ Bisphenol\ A\ Dimethacrylate$ 

2,2'-Ethylendioxydiethyldimethacrylat

· Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

· Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

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Trade name: Calibra Base

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· Additional information:

As this product is a medical device in the meaning of Directive 93/42/EEC and intended for use by the end consumer and is applied in an invasive manner or body contact, it is exempt from the labelling requirements according to regulation 1272/2008.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

### SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:					
	(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]   1				
EINECS: 216-367-7					
	💠 Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317				
CAS: 24448-20-2	Ethoxylated Bisphenol A Dimethacrylate	10-<25%			
	<b>♦</b> Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335				
CAS: 109-16-0	2,2'-Ethylendioxydiethyldimethacrylat	2.5-<10%			
EINECS: 203-652-6	<b>♦</b> Skin Sens. 1, H317				

· Additional information For the wording of the listed hazard phrases refer to section 16.

### SECTION 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. Then consult a doctor.
- · After swallowing

If symptoms persist consult doctor.

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.
- · Information for doctor No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

### **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents

CO2, 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

Formation of toxic gases is possible during heating or in case of fire.

- · 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

### SECTION 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.

(Contd. on page 3)

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Trade name: Calibra Base

(Contd. of page 2)

### $\cdot$ 6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

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.

## **SECTION 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:

Keep receptacle tightly sealed.

Protect from exposure to the light.

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

### SECTION 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. 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.

Natural rubber, NR

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

Permeation: Level  $\geq 1$ 

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Trade name: Calibra Base

(Contd. of page 3)

· 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

· Body protection: Protective work clothing.

### SECTION 9: Physical and chemical properties

· General Information

· Appearance:

Form: Past

Colour: According to product specification

Odour: CharacteristicOdour threshold: Not determined.

· pH-value: Not applicable.

· Change in condition

Melting point/Melting range:undeterminedBoiling point/Boiling range:Undetermined

· Flash point: Not applicable

Flammability (solid, gaseous) Not determined.
 Ignition temperature: Not applicable

• 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.Upper:Not determined.· Vapour pressure:Not applicable.

Density: Not determined
Relative density Not determined.
Vapour density Not applicable.
Evaporation rate Not applicable.

· Solubility in / Miscibility with

Water: Insoluble

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

· Viscosity:

dynamic: Not applicable. kinematic: Not applicable.

· Solvent content:

Organic solvents: 0.0 %

Solids content: 67.0 %

• 9.2 Other information No further relevant information available.

### SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

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- · 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

### SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

*Dermal* | *LD50* | >2000 mg/kg (mouse)

· Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC5	· LD/LC50 values relevant for classification:				
CAS: 15	CAS: 1565-94-2 (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]bismethacrylate				
Oral	LD50	>5000 mg/kg (rat)			
CAS: 10	9-16-0	2,2'-Ethylendioxydiethyldimethacrylat			
Oral	LD50	>5000 mg/kg (rat)			

- Primary irritant effect:
- · Skin corrosion/irritation

The unpolymerized product may be irritant to the skin for succeptible persons.

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye irritation.

· Respiratory or skin sensitisation

Repeated or prolonged contact with the not polymerized product may cause sensitization for acrylates / methacrylates.

May cause an allergic skin reaction.

- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity:

CAS: 109-16-0 2,2'-Ethylendioxydiethyldimethacrylat

LC50/96h 16.4 mg/l (Fish acute toxicity study)

- · 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 product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

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Trade name: Calibra Base

(Contd. of page 5)

## SECTION 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		
ſ	18 01 06* chemicals consisting of or containing hazardous substances		
ſ	HP 4 Irritant - skin irritation and eye damage		
Ī	HP 13 Sensitising		

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

SECTION 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		
· 14.5 Environmental hazards:	Not applicable.		
· 14.6 Special precautions for user	Not applicable.		
· 14.7 Transport in bulk according to Anne. Marpol and the IBC Code	x <b>II of</b> Not applicable.		
· UN ''Model Regulation'':	Void		

### **SECTION 15: Regulatory information**

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### **SECTION 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.

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#### · Relevant phrases

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

### · Department issuing SDS: Research & Development

· Contact: HotLine for urgent technical support: +49-7531-583-350

#### · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

\* Data compared to the previous version altered.

GB

Printing date 14.02.2017 Version number 7 Revision: 14.02.2017

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

- · 1.1 Product identifier
- · Trade name: Prime & Bond NT
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Application of the substance / the mixture Adhesive
- · Uses advised against No further relevant information available.
- · 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@dentsplysirona.com

- · Further information obtainable from:
- Departement 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)

### SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H336 May cause drowsiness or dizziness.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms





GHS02

GHS07

- · Signal word Danger
- · Hazard-determining components of labelling:

acetone

Di(ethylene glycol) dimethacrylate

· Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

*Use explosion-proof electrical/ventilating/lighting equipment.* 

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(Contd. of page 1)

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

#### · Additional information:

As this product is a medical device in the meaning of Directive 93/42/EEC and intended for use by the end consumer and is applied in an invasive manner or body contact, it is exempt from the labelling requirements according to regulation 1272/2008.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

### SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous compone	ents:	
CAS: 67-64-1	acetone	50-100%
EINECS: 200-662-2	♦ Flam. Liq. 2, H225; ♦ Eye Irrit. 2, H319; STOT SE 3, H336	
CAS: 105883-40-7	Urethane Dimethacrylate Resin	10-25%
	♦ Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 87699-25-0	Dipentaerythritol pentaacrylate phosphate	2.5-<10%
	Aquatic Chronic 2, H411; 🗘 Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	
CAS: 2358-84-1	Di(ethylene glycol) dimethacrylate	2.5-<10%
	<b>♦</b> Skin Sens. 1, H317	
CAS: 3290-92-4	propylidynetrimethyl trimethacrylate	0.25-<2.5%
	🕸 Aquatic Chronic 2, H411	
CAS: 128-37-0	2,6-di-tert-butyl-p-cresol	0.25-<2.5%
EINECS: 204-881-4	🕸 Aquatic Acute 1, H400; Aquatic Chronic 1, H410	1

<sup>•</sup> Additional information For the wording of the listed hazard phrases refer to section 16.

## **SECTION 4: First aid measures**

- · 4.1 Description of first aid measures
- · General information Immediately remove any clothing soiled by the product.
- · 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 If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Information for doctor No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

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Trade name: Prime & Bond NT

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### **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents

CO2, 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.

### SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

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

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Observe normal care for working with chemicals.

Prevent formation of aerosols.

Ensure good ventilation/exhaustion at the workplace.

- · 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.

Store only in the original receptacle.

- · Information about storage in one common storage facility: Store away from oxidising 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.

### SECTION 8: Exposure controls/personal protection

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

(Contd. on page 4)

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(Contd. of page 3)

#### · 8.1 Control parameters

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

CAS: 67-64-1 acetone

WEL Short-term value: 3620 mg/m³, 1500 ppm Long-term value: 1210 mg/m³, 500 ppm

· Regulatory information WEL: EH40/2011

· DNELs

CAS: 128-37-0 2,6-di-tert-butyl-p-cresol

Inhalative DNEL Werte 3.5 mg/m³ bw/day (rat)

- · 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.

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.

· 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

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.

Natural rubber, NR

Recommended thickness of the material:  $\geq 0.75$  mm

*Permeation:* Level  $\geq 2$ 

· 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:



Tightly sealed goggles.

· Body protection: Protective work clothing.

### SECTION 9: Physical and chemical properties

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

Form: Fluid

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Trade name: Prime & Bond NT

	(Contd. of page
Colour:	Yellow
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/freezing point:	undetermined
Initial boiling point and boiling range	∷ 60 °C
· Flash point:	-19 °C (c.c. Abel)
· Flammability (solid, gaseous)	Not applicable.
· Ignition temperature:	465 °C
Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive ai
	vapour mixtures are possible.
Explosion limits:	
Lower:	2.6 Vol %
Upper:	12.8 Vol %
· Vapour pressure at 20 °C:	233 hPa
Density at 20 °C:	$0.9 \ g/cm^3$
· 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:	67.0 %
Solids content:	3.0 %
9.2 Other information	No further relevant information available.

### SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 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

### SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

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Trade name: Prime & Bond NT

		(Contd. of page 5)
· <i>LD/LC50</i> 1	values rele	vant for classification:
CAS: 67-6	4-1 aceton	e
Oral	LD50	5800 mg/kg (rat)
Dermal	<i>LD50</i>	20000 mg/kg (rabbit)
Inhalative	LC50/4 h	76 mg/l (rat)
CAS: 3290	)-92-4 prop	ylidynetrimethyl trimethacrylate
Oral	LD50	>2000 mg/kg (rat)
CAS: 128-	37-0 2,6-d	i-tert-butyl-p-cresol
Oral	LD50	2930 mg/kg (rat)
Dermal	<i>LD50</i>	> 2000 mg/kg (rabbit)

- · Primary irritant effect:
- · Skin corrosion/irritation

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye irritation.

· Respiratory or skin sensitisation

Repeated or prolonged contact with the not polymerized product may cause sensitization for acrylates / methacrylates.

May cause an allergic skin reaction.

- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure

May cause drowsiness or dizziness.

- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic to:	· Aquatic toxicity:			
CAS: 67-6	CAS: 67-64-1 acetone			
LC50/96h	LC50/96h   5540 mg/l (Fish acute toxicity study)			
EC50/48h	6100 mg/L (daphnia magna)			
CAS: 3290	CAS: 3290-92-4 propylidynetrimethyl trimethacrylate			
LC50/96h	2 mg/l (Fish acute toxicity study)			
EC50/48h	>9.22 mg/L (daphnia magna)			
CAS: 128-	37-0 2,6-di-tert-butyl-p-cresol			
LC50/48h	>0.57 mg/l (daphnia magna)			
LC50/96h	>0.42 mg/l (Fish acute toxicity study)			
EC50/72h	>0.42 mg/l (Algea, gowth inhibition test)			

- · 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.
- · Ecotoxical effects:
- · Remark: Harmful to fish
- $\cdot \textit{Additional ecological information:}$
- · General notes:

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms

(Contd. on page 7)

Version number 7 Revision: 14.02.2017 Printing date 14.02.2017

Trade name: Prime & Bond NT

(Contd. of page 6)

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable. · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

## SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation



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

· European	· European waste catalogue		
18 01 06*	1 06* chemicals consisting of or containing hazardous substances		
HP 3	Flammable		
HP 4	Irritant - skin irritation and eye damage		
HP 5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity		
HP 13	Sensitising		
HP 14	HP 14 Ecotoxic		

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

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- · 14.1 UN-Number
- · ADR, IMDG, IATA UN1090
- · 14.2 UN proper shipping name
- $\cdot ADR$
- 1090 ACETONE mixture ACETONE, MIXTURE · IMDG, IATA
- · 14.3 Transport hazard class(es)
- $\cdot ADR$



- · Class 3 (F1) Flammable liquids.
- · Label
- · IMDG, IATA



- 3 Flammable liquids. · Class
- · Label
- · 14.4 Packing group
- · ADR, IMDG, IATA II

(Contd. on page 8)

Printing date 14.02.2017 Version number 7 Revision: 14.02.2017

Trade name: Prime & Bond NT

	(Contd. of pa		
14.5 Environmental hazards:	Not applicable.		
14.6 Special precautions for user	Warning: Flammable liquids.		
Danger code (Kemler):	33		
EMS Number:	F- $E$ , $S$ - $D$		
Stowage Category	E		
14.7 Transport in bulk according to Ann	ex II of		
Marpol and the IBC Code	Not applicable.		
Transport/Additional information:			
ADR			
Limited quantities (LQ)	IL		
Excepted quantities (EQ)	Code: E2		
	Maximum net quantity per inner packaging: 30 ml		
	Maximum net quantity per outer packaging: 500 ml		
· Transport category 2			
Tunnel restriction code	D/E		
<i>IMDG</i>			
Limited quantities (LQ)	1L		
Excepted quantities (EQ)	Code: E2		
	Maximum net quantity per inner packaging: 30 ml		
	Maximum net quantity per outer packaging: 500 ml		
UN "Model Regulation":	UN 1090 ACETONE MIXTURE, 3, II		

## SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

#### **SECTION 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.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

(Contd. on page 9)

Printing date 14.02.2017 Version number 7 Revision: 14.02.2017

Trade name: Prime & Bond NT

H411 Toxic to aquatic life with long lasting effects.

(Contd. of page 8)

- · Department issuing SDS: Research & Development
- · Contact: HotLine for urgent technical support: +49-7531-583-350
- · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

\* Data compared to the previous version altered.

GB

Printing date 08.04.2015 Version number 3 Revision: 08.04.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- · 1.1 Product identifier
- · Trade name: Self Cure Activator
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Application of the substance / the mixture Activator
- · Uses advised against No further relevant information available.
- · 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)

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H336 May cause drowsiness or dizziness.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

As this product is a medical device in the meaning of Directive 93/42/EEC and intended for use by the end consumer and is applied in an invasive manner or body contact, it is exempt from the labelling requirements according to regulation 1272/2008.

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms





GHS02 GHS07

- · Signal word Danger
- · Hazard-determining components of labelling:

acetone

2-hydroxyethyl methacrylate

· Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

(Contd. on page 2)

Printing date 08.04.2015 Version number 3 Revision: 08.04.2015

Trade name: Self Cure Activator

(Contd. of page 1)

· Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/

shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT**: Not applicable. · **vPvB**: Not applicable.

### SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 67-64-1	acetone <b>(1)</b> Flam. Liq. 2, H225; <b>(1)</b> Eye Irrit. 2, H319; STOT SE 3, H336	50-100%
CAS: 105883-40-7	Urethane Dimethacrylate Resin	10-<25%
	♦ Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 868-77-9	2-hydroxyethyl methacrylate	3-<10%
EINECS: 212-782-2	♦ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	
CAS: 75980-60-8	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	1-≤2.5%
EINECS: 278-355-8	Repr. 2, H361f; 🔖 Aquatic Chronic 2, H411	

<sup>·</sup> Additional information For the wording of the listed risk phrases refer to section 16.

### SECTION 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 If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Information for doctor No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

#### **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents CO2, sand, extinguishing powder. Do not use water.
- · For safety reasons unsuitable extinguishing agents Water.

(Contd. on page 3)

Printing date 08.04.2015 Version number 3 Revision: 08.04.2015

Trade name: Self Cure Activator

(Contd. of page 2)

- 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.

#### SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Prevent seepage into sewage system, workpits and cellars.

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.

Do not flush with water or aqueous cleansing agents

· 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.

### SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

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 oxidising agents.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

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

#### SECTION 8: Exposure controls/personal protection

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

(Contd. on page 4)

Printing date 08.04.2015 Version number 3 Revision: 08.04.2015

Trade name: Self Cure Activator

(Contd. of page 3)

#### · 8.1 Control parameters

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

#### 67-64-1 acetone

WEL Short-term value: 3620 mg/m³, 1500 ppm Long-term value: 1210 mg/m³, 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

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.

· 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

Butyl rubber, BR

Recommended thickness of the material:  $\geq 0.7 \text{ mm}$ 

*Permeation: Level ≥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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles.

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

#### **SECTION 9: Physical and chemical properties**

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

Form: Fluid
Colour: Light yellow
Odour: Acetone-like

(Contd. on page 5)

Printing date 08.04.2015 Version number 3 Revision: 08.04.2015

Trade name: Self Cure Activator

	(Contd. of page
· Odour threshold:	Not determined.
· pH-value at 20 °C:	7
· Change in condition	
Melting point/Melting range:	undetermined
Boiling point/Boiling range:	56 °C (Aceton)
· Flash point:	2 °C (Pensky-Marten Closed Cup)
· Flammability (solid, gaseous)	Not applicable.
· Ignition temperature:	465 °C
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapoumixtures are possible.
· Explosion limits:	
Lower:	2.6 Vol % (Aceton)
Upper:	12.8 Vol % (Aceton)
· Vapour pressure at 20 °C:	233 hPa
· Density at 20 °C:	0.9 g/cm³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Partly miscible
· Partition coefficient (n-octanol/wa	ter): Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	61.0 %
Water:	16.0 %
Solids content:	4.0 %
9.2 Other information	No further relevant information available.

### SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 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

Printing date 08.04.2015 Version number 3 Revision: 08.04.2015

Trade name: Self Cure Activator

(Contd. of page 5)

### **SECTION 11: Toxicological information**

- · 11.1 Information on toxicological effects
- · Acute toxicity:

· LD/LC50 vo	alues rele	vant for classification:
ATE (Acute	e Toxicity	Estimates)
Inhalative I	LC50/4 h	125 mg/l

67-64-1 ac	67-64-1 acetone		
Oral	LD50	5800 mg/kg (rat)	
Dermal	LD50	20000 mg/kg (rabbit)	
Inhalative	LC50/4 h	76 mg/l (rat)	
868-77-9 2	868-77-9 2-hydroxyethyl methacrylate		
Oral	LD50	>5000 mg/kg (rat)	
Dermal	<i>LD50</i>	>3000 mg/kg (rabbit)	
75980-60-8 Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide			
Oral	LD50	5000 mg/kg (rat)	

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitisation: Sensitisation possible through skin contact.
- · 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

### SECTION 12: Ecological information

· 12.1 Toxicity

	12.1 10.0000		
	· Aquatic toxicity:		
Ī	67-64-1 acetone		
	EC50/48h   6100 mg/L (daphnia magna)		
	LC50/96h 5540 mg/l (Fish acute toxicity study)		
	868-77-9 2-hydroxyethyl methacrylate		
	EC50/48h   380 mg/L (daphnia magna)		
	LC50/96h >100 mg/l (Fish acute toxicity study)		
Ī	75980-60-8 Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide		
Ī	LC50/48h   6.53 mg/l (Fish acute toxicity study)		

- · 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 product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

(Contd. on page 7)

Printing date 08.04.2015 Version number 3 Revision: 08.04.2015

Trade name: Self Cure Activator

· 12.6 Other adverse effects No further relevant information available.

(Contd. of page 6)

### SECTION 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.

SECTION 14: Transport information	tion — — — — — — — — — — — — — — — — — — —	
14.1 UN-Number ADR, IMDG, IATA	UN1090	
14.2 UN proper shipping name ADR IMDG, IATA	1090 ACETONE, mixture ACETONE mixture	
14.3 Transport hazard class(es)		
ADR		
Class Label	3 (F1) Flammable liquids.	
IMDG, IATA		
Class	3 Flammable liquids.	
Label	3	
14.4 Packing group ADR, IMDG, IATA	II	
14.5 Environmental hazards: Marine pollutant:	No	
14.6 Special precautions for user Danger code (Kemler):	Warning: Flammable liquids. 33	

Printing date 08.04.2015 Version number 3 Revision: 08.04.2015

Trade name: Self Cure Activator

	(Contd. of pag	
EMS Number: F-E, <u>S-E</u>		
· 14.7 Transport in bulk according to Anne. MARPOL73/78 and the IBC Code	<b>x II of</b> Not applicable.	
· Transport/Additional information:		
· <i>ADR</i>		
· Limited quantities (LQ)	IL	
Excepted quantities $(\widetilde{EQ})$	Code: E2	
· · · · · · · ·	Maximum net quantity per inner packaging: 30 ml	
	Maximum net quantity per outer packaging: 500 ml	
Transport category	2	
Tunnel restriction code	D/E	
· IMDG		
Limited quantities (LQ)	IL	
Excepted quantities $(\widetilde{EQ})$	Code: E2	
- · · · · · · · · · · · · · · · · · · ·	Maximum net quantity per inner packaging: 30 ml	
	Maximum net quantity per outer packaging: 500 ml	
UN "Model Regulation":	UN1090, ACETONE mixture, 3, II	

### SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### SECTION 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.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H361f Suspected of damaging fertility.

H411 Toxic to aquatic life with long lasting effects.

- · Department issuing MSDS: Analytical Research
- · Contact: HotLine for urgent technical support: +49-7531-583-350
- · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

(Contd. on page 9)

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

Printing date 08.04.2015 Version number 3 Revision: 08.04.2015

Trade name: Self Cure Activator

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1 Repr. 2: Reproductive toxicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

\* Data compared to the previous version altered.

(Contd. of page 8)

Printing date 05.08.2016 Version number 6 Revision: 05.08.2016

SECTION 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
- · Application of the substance / the mixture Silane Coupling Agent
- · Uses advised against No further relevant information available.
- · 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@dentsplysirona.com

- · Further information obtainable from:
- Departement 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)

### SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



- · Signal word Danger
- · Hazard statements

H225 Highly flammable liquid and vapour.

· Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

#### · Additional information:

As this product is a medical device in the meaning of Directive 93/42/EEC and intended for use by the end consumer and is applied in an invasive manner or body contact, it is exempt from the labelling requirements according to regulation 1272/2008.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.

(Contd. on page 2)

Printing date 05.08.2016 Version number 6 Revision: 05.08.2016

Trade name: Calibra Silane Coupling Agent

· vPvB: Not applicable.

(Contd. of page 1)

### SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
	ethanol	50-100%
EINECS: 200-578-6	🍅 Flam. Liq. 2, H225	
		2.5-<10%
EINECS: 200-662-2	爾 Flam. Liq. 2, H225; 🕚 Eye Irrit. 2, H319; STOT SE 3, H336	

<sup>·</sup> Additional information For the wording of the listed hazard phrases refer to section 16.

### SECTION 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.
- · 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.
- · Information for doctor No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

### **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents

CO2, 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.

### SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

· 6.2 Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

 $\cdot$  6.3 Methods and material for containment and cleaning up:

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

Dispose contaminated material as waste according to item 13.

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.

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### SECTION 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 oxidising 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.

## SECTION 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:

CAS: 64-17-5 ethanol

WEL Long-term value: 1920 mg/m³, 1000 ppm

CAS: 67-64-1 acetone

WEL Short-term value: 3620 mg/m³, 1500 ppm Long-term value: 1210 mg/m³, 500 ppm

- · Regulatory information WEL: EH40/2011
- · 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:



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

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.

Butyl rubber, BR

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

*Permeation: Level ≥6* 

· 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.

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· Eye protection:



Tightly sealed goggles.

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

## SECTION 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/cm³
 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 %

• 9.2 Other information No further relevant information available.

## SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

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- · 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

### SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:				
CAS: 64-1	CAS: 64-17-5 ethanol			
Oral	Oral LD50   6200 mg/kg (rat)			
Inhalative	Inhalative LC50/4 h 95.6 mg/l (rat)			
CAS: 67-6	CAS: 67-64-1 acetone			
Oral	Oral LD50 5800 mg/kg (rat)			
Dermal	Dermal LD50 20000 mg/kg (rabbit)			
Inhalative	Inhalative LC50/4 h 76 mg/l (rat)			

- · Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic to	· Aquatic toxicity:		
CAS: 64-17-5 ethanol			
LC50/48h	8140 mg/l (Fish acute toxicity study)		
EC50/48h	EC50/48h   9268 mg/L (daphnia magna)		
CAS: 67-6	CAS: 67-64-1 acetone		
LC50/96h	5540 mg/l (Fish acute toxicity study)		
EC50/48h	6100 mg/L (daphnia magna)		

- · 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.

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· 12.6 Other adverse effects No further relevant information available.

## SECTION 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 hazardous substances

HP 3 Flammable

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

SEC	TION 14	: Transpor	t information

· 14.1 UN-Number · ADR, IMDG, IATA	UN1993
· 14.2 UN proper shipping name	
$\cdot ADR$	1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL
	ALCOHOL), ACETONE)
· IMDG	FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL
	ALCOHOL), ACETONE)
·IATA	FLAMMABLE LIQUID, N.O.S. (ETHANOL, ACETONE)

- · 14.3 Transport hazard class(es)
- $\cdot ADR$



· Class 3 (F1) Flammable liquids.

· Label

· IMDG, IATA



· Class 3 Flammable liquids.

· Label 3

· 14.4 Packing group · ADR, IMDG, IATA

· ADR, IMDG, IATA

· 14.5 Environmental hazards: Not applicable.

• 14.6 Special precautions for user Warning: Flammable liquids.

Danger code (Kemler): 33
 EMS Number: F-E,S-E

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· Stowage Category	B
· 14.7 Transport in bulk according to A	nnex II of
Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
$\cdot$ ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	IL
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· UN ''Model Regulation'':	UN 1993 FLAMMABLE LIQUID, N.O.S. (ETHANO.
	(ETHYL ALCOHOL), ACETONE), 3, II

### SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### SECTION 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.

- · Department issuing SDS: Research & Development
- · Contact: HotLine for urgent technical support: +49-7531-583-350
- · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

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LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

\* Data compared to the previous version altered.

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