

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 26.01.2011

Revision: 26.01.2011

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

- **Product details**
- **Trade name:** Cimara Zircon adhesive
- **Application of the substance / the preparation** Dental bonding material
- **Manufacturer/Supplier:**  
VOCO GmbH  
Anton-Flettner-Str. 1-3  
D-27472 Cuxhaven
- **Further information obtainable from:** Scientific department tel. +49 (0)4721-719-0
- **Information in case of emergency:** Poison Control Center Mainz +49 (0)6131-19240

## 2 Hazards identification

- **Hazard description:**  
Xi Irritant  
F 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.  
R 11 Highly flammable.  
R 36/38 Irritating to eyes and skin.  
R 43 May cause sensitisation by skin contact.
- **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **Additional information:** Use only for intended scope of application

## 3 Composition/information on ingredients

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

- **Dangerous components:**

CAS: 67-64-1 EINECS: 200-662-2	acetone	Xi, F; R 11-36-66-67	50-100%
CAS: 1565-94-2	BIS-GMA	Xi; R 36/38	10-25%
CAS: 868-77-9 EINECS: 212-782-2	2-hydroxyethyl methacrylate	Xi; R 36/38	5-10%
	Catalyst	Xn, Xi, N; R 20/22-36/38-50	≤ 2.5%

## 4 First aid measures

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

## 5 Fire-fighting measures

- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet

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· **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
 Ensure adequate ventilation.  
 Do not flush with water or aqueous cleansing agents

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:** For dental use only.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** See storage instructions on package
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.

## 8 Exposure controls/personal protection

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

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

### 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.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.
- **Protection of hands:**



Protective gloves

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Safety glasses

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## 9 Physical and chemical properties

### · General Information

**Form:** Fluid  
**Colour:** Yellowish  
**Odour:** Characteristic

### · Change in condition

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** Undetermined.

· **Flash point:** -12°C

· **Ignition temperature:** 465°C

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

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

· **Density:** Not determined.

· **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

## 10 Stability and reactivity

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

## 11 Toxicological information

### · Acute toxicity:

### · LD/LC50 values relevant for classification:

#### 67-64-1 acetone

Oral	LD50	5800 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rabbit)

### · Primary irritant effect:

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.

### · Additional toxicological information:

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

- **Sensitisation** May cause sensitisation by skin contact.

## 12 Ecological information

### · Additional ecological information:

### · General notes:

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

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

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## 13 Disposal considerations

- **Product:**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

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



- **ADR/RID class:** 3 Flammable liquids.
- **Danger code (Kemler):** 33
- **UN-Number:** 1090
- **Packaging group:** II
- **Hazard label:** 3
- **Description of goods:** 1090 ACETONE
- **Limited quantities (LQ)** LQ4
- **Transport category** 2
- **Tunnel restriction code** D/E

- **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1090
- **Label** 3
- **Packaging group:** II
- **EMS Number:** F-E,S-D
- **Marine pollutant:** No
- **Proper shipping name:** ACETONE

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



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1090
- **Label** 3
- **Packaging group:** II
- **Proper shipping name:** ACETONE

## 15 Regulatory information

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

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**· Code letter and hazard designation of product:***Xi Irritant**F Highly flammable***· Hazard-determining components of labelling:***2-hydroxyethyl methacrylate***· Risk phrases:***11 Highly flammable.**36/38 Irritating to eyes and skin.**43 May cause sensitisation by skin contact.***· Safety phrases:***16 Keep away from sources of ignition - No smoking.**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.**43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.***· Special labelling of certain preparations:***Contains 2-hydroxyethyl methacrylate. May produce an allergic reaction.***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.*

**· Department issuing MSDS:** *Scientific departement***· Contact:** *Tel.: +49 (0)4721-719-0*

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# Safety data sheet

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

Printing date 21.02.2012



Version number 6

Revision: 21.02.2012

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

- **Product identifier**
- **Trade name:** Cimara Zircon Primer
- **Relevant identified uses of the substance or mixture and uses advised against** Non-dental use.
- **Application of the substance / the preparation** Bonding
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
VOCO GmbH  
Anton-Flettner-Str. 1-3  
D-27472 Cuxhaven
- **Further information obtainable from:** Scientific department tel. +49 (0)4721-719-0
- **Emergency telephone number:** Poison Control Center Mainz +49 (0)6131-19240

### 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
Xi; Irritant  
R36: Irritating to eyes.  
.....  
F; Highly flammable  
R11: Highly flammable.
- **Information concerning particular hazards for human and environment:**  
The product does not have to be labelled due to the calculation procedure of the regulation 1272/2008/EC 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.
- **Labelling according to EU guidelines:**  
As a medical device the product is not subject to labelling regulations under 1272/2008/EC.
- **Code letter and hazard designation of product:**  
  Xi Irritant  
F Highly flammable
- **Safety phrases:**  
9 Keep container in a well-ventilated place.  
16 Keep away from sources of ignition - No smoking.  
23 Do not breathe aerosol.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.
- **Other hazards** Use only for intended scope of application

### 3 Composition/information on ingredients

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

· **Dangerous components:**

CAS: 67-64-1	acetone	Xi R36; F R11	50-100%
EINECS: 200-662-2		R66-67	

### 4 First aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

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**Trade name: Cimara Zircon Primer**

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- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **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

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
For dental use only.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** See storage instructions on package
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.

### 8 Exposure controls/personal protection

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

· <b>Ingredients with limit values that require monitoring at the workplace:</b>	
<b>67-64-1 acetone</b>	
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.

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.

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**Trade name: Cimara Zircon Primer**

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- **Protection of hands:** Not required.
- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:** Safety glasses

### 9 Physical and chemical properties

#### · Information on basic physical and chemical properties

##### · General Information

##### · Appearance:

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

· **pH-value:** Not determined.

##### · Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

· **Flash point:** -19°C

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 465°C

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

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

· **Density at 20°C:** 0.79 g/cm<sup>3</sup>

##### · Solubility in / Miscibility with water:

Not miscible or difficult to mix.

##### · Other information

No further relevant information available.

### 10 Stability and reactivity

#### · Reactivity

#### · Chemical stability

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions:** No dangerous reactions known.

· **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

#### · Information on toxicological effects

##### · Acute toxicity:

##### · LD/LC50 values relevant for classification:

##### 67-64-1 acetone

Oral	LD50	5800 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rabbit)

##### · Primary irritant effect:

· **on the skin:** No irritant effect.

· **on the eye:** Irritating effect.

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

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**Trade name: Cimara Zircon Primer**

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**· 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****· Toxicity**

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

**· Additional ecological information:****· General notes:**

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

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

**13 Disposal considerations****· Waste treatment methods****· Recommendation**

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

**· Uncleaned packaging:**

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

**14 Transport information****· UN-Number**

· **ADR, IMDG, IATA**      UN1090

**· UN proper shipping name -**

· **ADR**      1090 ACETONE

· **IMDG, IATA**      ACETONE

**· Transport hazard class(es) -****· ADR**

· **Class**      3 Flammable liquids.

· **Label**      3

**· IMDG, IATA**

· **Class**      3 Flammable liquids.

· **Label**      3

· **ADR, IMDG, IATA**      II

· **Marine pollutant:**      No

· **Danger code (Kemler):**      33

· **EMS Number:**      F-E, S-E

**· ADR**

· **Limited quantities (LQ)**      1L

· **Transport category**      2

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**Trade name: Cimara Zircon Primer**

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· **Tunnel restriction code** D/E**15 Regulatory information****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.*

- **Department issuing MSDS:** Scientific department
- **Contact:** Tel.: +49 (0)4721-719-0

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