

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

077111040

**The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).**

071107465 077093826 077093891 077093909 077093917 077093958 077093966 077093974 077111248

Printing date 03/25/2010

Reviewed on 03/25/2010

## 1 Identification of substance

### Product details

- Trade name: *Bifix QM base*
- Application of the substance / the preparation *Dental luting cement*
- Manufacturer/Supplier:  
*VOCO GmbH*  
*Anton-Flethner-Str. 1-3*  
*D-27472 Cuxhaven*
- Information department: *Scientific department tel. +49 (0)4721-719-0*
- Emergency information: *Scientific department tel. +49 (0)4721-719-0*

## 2 Composition/Data on components

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

### Dangerous components:

6606-59-3	HEDMA	10-25%
1565-94-2	BIS-GMA	10-25%
	Catalyst	≤ 2.5%

## 3 Hazards identification

### Hazard description:

*Irritant*

### Information pertaining to particular dangers for man and environment:

*The product has to be labelled due to the calculation procedure of international guidelines.*

*Irritating to eyes and skin.*

### Classification system:

*The classification was made according to the latest editions of international substances lists, and expanded upon company and literature data.*

### NFPA ratings (scale 0 - 4)



Health = 1  
Fire = 0  
Reactivity = 0

### HMS-ratings (scale 0 - 4)



Health = 1  
Fire = 0  
Reactivity = 0

## 4 First aid measures

- After inhalation: *Seek medical treatment 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.*

## 5 Fire fighting measures

- Suitable extinguishing agents:  
*CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*

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Printing date 03/25/2010

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Trade name: Bifix QM base

Protective equipment: No special measures required.

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### 6 Accidental release measures

- Person-related safety precautions: Not required.
- 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.

### 7 Handling and storage

- Handling:  
Information for safe handling: For dental use only.  
Information about protection against explosions and fires: No special measures required.
- 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 receptacle tightly sealed.

### 8 Exposure controls and personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Components 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 that were valid during the creation were used as basis.
- Personal protective equipment:  
General protective and hygienic measures:  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Avoid contact with the eyes and skin.
- 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

### 9 Physical and chemical properties

#### General Information

Form:	Pasty
Color:	Whitish

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USA

Printing date 03/25/2010

Reviewed on 03/25/2010

Trade name: Bifix QM base

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Odor:	Characteristic
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	Not applicable.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
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 products of decomposition: No dangerous decomposition products known.

### 11 Toxicological information

- Acute toxicity:
- Primary irritant effect:
  - on the skin: Irritant to skin and mucous membranes.
  - on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:  
The product shows the following dangers according to internally approved calculation methods for preparations:  
irritant

### 12 Ecological information

- General notes:  
Water hazard class 1 (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

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

### 14 Transport information

- DOT regulations:
- Hazard class:

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USA

Printing date 03/25/2010

Reviewed on 03/25/2010

Trade name: *Bifix QM base*

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

ADR/RID class: -

· Maritime transport IMDG:

IMDG Class: -

· Marine pollutant: No

· Air transport ICAO-T1 and IATA-DGR:

ICAO/IATA Class: -

**15 Regulations**

· *Sara*

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

6606-59-3 | HEDMA

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

Contact Voco for more informations

· Carcinogenicity categories

· EPA (Environmental Protection Agency)

Contact Voco for more information

· IARC (International Agency for Research on Cancer)

Contact Voco for more information

· NTP (National Toxicology Program)

Contact Voco for more informations

· TLV (Threshold Limit Value established by ACGIH)

Contact Voco for more Information

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Contact Voco for more information

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Canadian substance listings:

· Canadian Domestic Substances List (DSL)

Contact Voco for more informations

· Canadian Ingredient Disclosure list (limit 0.1%)

Contact Voco for more informations

· Canadian Ingredient Disclosure list (limit 1%)

Contact Voco for more informations

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**Material Safety Data Sheet**  
 acc. to ISO/DIS 11014

Printing date 03/25/2010

Reviewed on 03/25/2010

Trade name: **Bifix QM base**

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**Product related hazard informations:***The product has been classified and marked in accordance with directives on hazardous materials.***Hazard symbols:****Irritant****Risk phrases:***Irritating to eyes and skin.***Safety phrases:***In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.**After contact with skin, wash immediately with plenty of soap and water.**Wear suitable gloves and eye/face protection.***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*

USA

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.01.2015



Version number 9

Revision: 05.01.2015

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

- **Product identifier**
- **Trade name:** *Ceramic Bond*
- **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:**  
*Not applicable.*  
*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:**

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

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

Printing date 05.01.2015

Version number 9

Revision: 05.01.2015

Trade name: Ceramic Bond

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#### 4 First aid measures

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

- **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.

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

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**Trade name: Ceramic Bond**

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- **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.
- **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:

· <b>Form:</b>	Fluid
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	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)
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**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 05.01.2015

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**Trade name: Ceramic Bond**

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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.· **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

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

Printing date 05.01.2015

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**Trade name: Ceramic Bond**

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· **EMS Number:** F-E,S-E  
· **ADR**  
· **Limited quantities (LQ)** 1L  
· **Transport category** 2  
· **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

GB

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/15/2016

Reviewed on 12/15/2016

## 1 Identification

- **Product identifier**
- **Trade name:** *Ceramic Bond*
- **Application of the substance / the mixture** *Bonding*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*VOCO GmbH  
Anton-Flettner-Str. 1-3  
D-27472 Cuxhaven*
- **Information department:** *Scientific department tel. +49 (0)4721-719-0*
- **Emergency telephone number:** *Scientific department tel. +49 (0)4721-719-0*

## 2 Hazard(s) identification

*Health effects are based on the unmixed/uncured material.  
Under FDA regulations this product is classified as a medical device.  
Medical devices are exempt from the labelling provisions of GHS according to the Hazard Communication Standard (HCS).*

- **Classification of the substance or mixture**



*Flame*

*Flam. Liq. 2 H225 Highly flammable liquid and vapor.*

*Eye Irrit. 2B H320 Causes eye irritation.*

- **Label elements**
- **Hazard pictograms** *GHS02*
- **Signal word** *Danger*
- **Hazard statements**  
*Highly flammable liquid and vapor.  
Causes eye irritation.*
- **Precautionary statements**  
*Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Wear protective gloves / eye protection.  
Wear protective clothing.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
If eye irritation persists: Get medical advice/attention.*
- **Other hazards** *Use only for intended scope of application*
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*

## 3 Composition/information on ingredients

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

- **Dangerous components:**

67-64-1	acetone	<i>Flam. Liq. 2, H225 Eye Irrit. 2A, H319; STOT SE 3, H336</i>	<i>50-100%</i>
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## 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** *Seek medical treatment in case of complaints.*
- **After skin contact:** *Generally the product does not irritate the skin.*

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/15/2016

Reviewed on 12/15/2016

**Trade name: Ceramic Bond**

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- **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.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting 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
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **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).
- **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 protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
See storage instructions on package
- **Specific end use(s)** No further relevant information available.

## \* 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components 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 that were valid during the creation were used as basis.

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US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/15/2016

Reviewed on 12/15/2016

Trade name: *Ceramic Bond*

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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.  
Avoid contact with the eyes and skin.
- **Protection of hands:** Not required.
- **Material of gloves:** Not required.
- **Eye protection:** Safety glasses

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

· <b>Form:</b>	Fluid
· <b>Color:</b>	Colorless
· <b>Odor:</b>	Characteristic
· <b>Odor threshold:</b>	Not determined.
- **pH-value:** Not determined.
- **Change in condition**

· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	Undetermined.
- **Flash point:** -19 °C (-2 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Density at 20 °C (68 °F):** 0.79 g/cm<sup>3</sup> (6.593 lbs/gal)
- **Relative density** Not determined.
- **Vapor density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**

· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.
- **Other information** No further relevant information available.

## 10 Stability and reactivity

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

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US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/15/2016

Reviewed on 12/15/2016

Trade name: Ceramic Bond

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

## 11 Toxicological information

· **Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values that are 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.· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

· **Toxicity**· **Aquatic toxicity:** No further relevant information available.· **Persistence and degradability** No further relevant information available.· **Behavior in environmental systems:**· **Bioaccumulative potential** No further relevant information available.· **Mobility in soil** No further relevant information available.· **Additional ecological information:**· **General notes:**

Water hazard class 1 (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.

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

## 13 Disposal considerations

· **Waste treatment methods**· **Recommendation:**

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

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US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/15/2016



Reviewed on 12/15/2016

Trade name: Ceramic Bond

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

## 14 Transport information

- |                                                                                  |                                                                                    |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| · <b>UN-Number</b>                                                               |                                                                                    |
| · <b>DOT, ADR, IMDG, IATA</b>                                                    | UNI090                                                                             |
| · <b>UN proper shipping name</b>                                                 | -                                                                                  |
| · <b>DOT</b>                                                                     | Acetone                                                                            |
| · <b>ADR</b>                                                                     | 1090 Acetone                                                                       |
| · <b>IMDG, IATA</b>                                                              | ACETONE                                                                            |
| · <b>Transport hazard class(es)</b>                                              | -                                                                                  |
| · <b>DOT</b>                                                                     |                                                                                    |
|                                                                                  |   |
| · <b>Class</b>                                                                   | 3 Flammable liquids                                                                |
| · <b>Label</b>                                                                   | 3                                                                                  |
|                                                                                  |                                                                                    |
| · <b>ADR, IMDG, IATA</b>                                                         |                                                                                    |
|                                                                                  |  |
| · <b>Class</b>                                                                   | 3 Flammable liquids                                                                |
| · <b>Label</b>                                                                   | 3                                                                                  |
| · <b>Packing group</b>                                                           | -                                                                                  |
| · <b>DOT, ADR, IMDG, IATA</b>                                                    | II                                                                                 |
| · <b>Environmental hazards:</b>                                                  | Not applicable.                                                                    |
| · <b>Marine pollutant:</b>                                                       | No                                                                                 |
| · <b>Special precautions for user</b>                                            | Not applicable.<br>Warning: Flammable liquids                                      |
| · <b>Danger code (Kemler):</b>                                                   | 33                                                                                 |
| · <b>EMS Number:</b>                                                             | F-E, S-E                                                                           |
| · <b>Stowage Category</b>                                                        | E                                                                                  |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.                                                                    |
| · <b>UN "Model Regulation":</b>                                                  | UN 1090 ACETONE, 3, II                                                             |

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

(Contd. on page 6)

US



# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/15/2016

Reviewed on 12/15/2016

Trade name: Ceramic Bond

(Contd. of page 5)

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients are listed

· **TLV (Threshold Limit Value established by ACGIH)**

67-64-1 acetone

A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms** GHS02

· **Signal word** Danger

· **Hazard statements**

Highly flammable liquid and vapor.

Causes eye irritation.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Wear protective gloves / eye protection.

Wear protective clothing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

## 16 Other information

The information contained herein is based on our present knowledge and is believed to be correct at the date issued. The information is subject to change without notice. However, all information, statements, recommendations or suggestions shall not constitute any guarantee, representation or warranty, expressed or implied.

Final determination whether the product is fit and suitable for a particular purpose and the user's method of use or application is the sole responsibility of the user.

· **Department issuing SDS:** Scientific department

· **Contact:** Tel.: +49 (0)4721-719-0

· **Date of preparation / last revision** 12/15/2016 / 14

· **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

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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

NIOSH: National Institute for Occupational Safety

(Contd. on page 7)

**Safety Data Sheet**  
**acc. to OSHA HCS**

Printing date 12/15/2016

Reviewed on 12/15/2016

**Trade name: Ceramic Bond**

(Contd. of page 6)

*OSHA: Occupational Safety & Health**TLV: Threshold Limit Value**PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**BEI: Biological Exposure Limit**Flam. Liq. 2: Flammable liquids – Category 2**Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A**Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3***· \* Data compared to the previous version altered.**

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/21/2016

Reviewed on 09/21/2016

## 1 Identification

- **Product identifier**
- **Trade name:** *Bifix QM base*
- **Application of the substance / the mixture** *Dental luting cement*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*VOCO GmbH  
Anton-Flettner-Str. 1-3  
D-27472 Cuxhaven*
- **Information department:** *Scientific department tel. +49 (0)4721-719-0*
- **Emergency telephone number:** *Scientific department tel. +49 (0)4721-719-0*

## 2 Hazard(s) identification

*Health effects are based on the unmixed/uncured material.  
Under FDA regulations this product is classified as a medical device.  
Medical devices are exempt from the labelling provisions of GHS according to the Hazard Communication Standard (HCS).*

- **Classification of the substance or mixture**



*Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.*

- **Label elements**
- **Hazard pictograms** *GHS07*
- **Signal word** *Warning*
- **Hazard statements**  
*Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.*
- **Precautionary statements**  
*Wear protective gloves / eye protection.  
Wear protective clothing.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If skin irritation occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
IF ON SKIN: Wash with plenty of soap and water.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Other hazards** *Use only for intended scope of application*
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*

## 3 Composition/information on ingredients

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

- **Dangerous components:**

1565-94-2	BIS GMA	10-25%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	

(Contd. on page 2)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/21/2016

Reviewed on 09/21/2016

Trade name: *Bifix QM base*

6606-59-3

1,6-hexanediylbismethacrylate

(Contd. of page 1)

10-25%

Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335

## 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Seek medical treatment 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.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

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

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **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).
- **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** For dental use only.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** See storage instructions on package
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

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

(Contd. on page 3)

US

# Safety Data Sheet


acc. to OSHA HCS

Printing date 09/21/2016

Reviewed on 09/21/2016

Trade name: Bifix QM base

(Contd. of page 2)

- **Control parameters**
  - **Components 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 that were valid during the creation were used as basis.
  - **Exposure controls**
  - **Personal protective equipment:**
  - **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.  
Avoid contact with the eyes and skin.
  - **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.
  - **Eye protection:** Safety glasses

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Pasty
Color:	Whitish
Odor:	Characteristic
- **pH-value:** Not determined.
- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
- **Flash point:** Not applicable.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Density:** Not determined.
- **Solubility in / Miscibility with**

Water:	Not miscible or difficult to mix.
--------	-----------------------------------
- **Viscosity:**

Dynamic:	Not determined.
Kinematic:	Not determined.
- **Other information** No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.

(Contd. on page 4)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/21/2016

Reviewed on 09/21/2016

Trade name: **Bifix QM base**

(Contd. of page 3)

- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant
- **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>		
128-37-0	2,6-di-tert-butyl-p-cresol	3

· <b>NTP (National Toxicology Program)</b>
None of the ingredients is listed.

· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
None of the ingredients is listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (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.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

US

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/21/2016

Reviewed on 09/21/2016

Trade name: Bifix QM base

(Contd. of page 4)

## 14 Transport information

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

## 15 Regulatory information

**· Safety, health and environmental regulations/legislation specific for the substance or mixture**

**· Sara**

**· Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

**· Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

**· TSCA (Toxic Substances Control Act):**

One or more substances contained in this material are not listed on the TSCA Inventory.  
Contact VOCO for more information.

**· Proposition 65**

**· Chemicals known to cause cancer:**

None of the ingredients are listed.

**· Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**· Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**· Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**· Cancerogenity categories**

**· EPA (Environmental Protection Agency)**

None of the ingredients are listed.

**· TLV (Threshold Limit Value established by ACGIH)**

Contact VOCO for more information.

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

**· GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

**· Hazard pictograms GHS07**

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/21/2016

Reviewed on 09/21/2016

Trade name: **Bifix QM base**

(Contd. of page 5)

- **Signal word** Warning
- **Hazard statements**
  - Causes skin irritation.
  - Causes serious eye irritation.
  - May cause an allergic skin reaction.
- **Precautionary statements**
  - Wear protective gloves / eye protection.
  - Wear protective clothing.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - If skin irritation occurs: Get medical advice/attention.
  - If eye irritation persists: Get medical advice/attention.
  - IF ON SKIN: Wash with plenty of soap and water.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

## 16 Other information

The information contained herein is based on our present knowledge and is believed to be correct at the date issued. The information is subject to change without notice. However, all information, statements, recommendations or suggestions shall not constitute any guarantee, representation or warranty, expressed or implied.

Final determination whether the product is fit and suitable for a particular purpose and the user's method of use or application is the sole responsibility of the user.

- **Department issuing SDS:** Scientific department
- **Contact:** Tel.: +49 (0)4721-719-0
- **Date of preparation / last revision** 09/21/2016 / 8
- **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
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - 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)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  - 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.**

US



# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/21/2016

Reviewed on 09/21/2016

## 1 Identification

- **Product identifier**
- **Trade name:** *Bifix QM catalyst*
- **Application of the substance / the mixture** *Dental luting cement*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*VOCO GmbH  
Anton-Flettner-Str. 1-3  
D-27472 Cuxhaven*
- **Information department:** *Scientific department tel. +49 (0)4721-719-0*
- **Emergency telephone number:** *Scientific department tel. +49 (0)4721-719-0*

## 2 Hazard(s) identification

*Health effects are based on the unmixed/uncured material.  
Under FDA regulations this product is classified as a medical device.  
Medical devices are exempt from the labelling provisions of GHS according to the Hazard Communication Standard (HCS).*

- **Classification of the substance or mixture**



*Skin Irrit. 2 H315 Causes skin irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
Eye Irrit. 2B H320 Causes eye irritation.*

- **Label elements**
- **Hazard pictograms** *GHS07*
- **Signal word** *Warning*
- **Hazard statements**  
*Causes skin and eye irritation.  
May cause an allergic skin reaction.*
- **Precautionary statements**  
*Wear protective gloves / eye protection.  
Wear protective clothing.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
If skin irritation occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
IF ON SKIN: Wash with plenty of soap and water.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Other hazards** *Use only for intended scope of application*
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*

## 3 Composition/information on ingredients

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

- **Dangerous components:**

6606-59-3	1,6-hexanediylbismethacrylate	10-25%
	<i>Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335</i>	

(Contd. on page 2)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/21/2016

Reviewed on 09/21/2016

Trade name: *Bifix QM catalyst*

(Contd. of page 1)

1565-94-2 *BIS GMA*

10-25%

*Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317*

## 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Seek medical treatment 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.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

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

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **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).
- **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** For dental use only.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** See storage instructions on package
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

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

(Contd. on page 3)

US

# Safety Data Sheet


acc. to OSHA HCS

Printing date 09/21/2016

Reviewed on 09/21/2016

Trade name: *Bifix QM catalyst*

(Contd. of page 2)

- **Control parameters**
  - **Components 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 that were valid during the creation were used as basis.
  - **Exposure controls**
  - **Personal protective equipment:**
  - **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.  
Avoid contact with the eyes and skin.
  - **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.
  - **Eye protection:** Safety glasses

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

<b>Form:</b>	Pasty
<b>Color:</b>	Whitish Different according to coloring
- **Odor:** Characteristic
- **pH-value:** Not determined.
- **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.
- **Flash point:** Not applicable.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Density:** Not determined.
- **Solubility in / Miscibility with**

<b>Water:</b>	Not miscible or difficult to mix.
---------------	-----------------------------------
- **Viscosity:**

<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
- **Other information** No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

(Contd. on page 4)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/21/2016

Reviewed on 09/21/2016

Trade name: **Bifix QM catalyst**

(Contd. of page 3)

- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

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

- **NTP (National Toxicology Program)**

None of the ingredients is listed.
------------------------------------

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.
------------------------------------

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (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.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

US

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/21/2016

Reviewed on 09/21/2016

Trade name: *Bifix QM catalyst*

(Contd. of page 4)

## 14 Transport information

<i>· UN-Number</i>	
<i>· DOT, ADR, ADN, IMDG, IATA</i>	Void
<i>· UN proper shipping name</i>	
<i>· DOT, ADR, ADN, IMDG, IATA</i>	Void
<i>· Transport hazard class(es)</i>	
<i>· DOT, ADR, ADN, IMDG, IATA</i>	
<i>· Class</i>	Void
<i>· Packing group</i>	-
<i>· DOT, ADR, IMDG, IATA</i>	Void
<i>· Environmental hazards:</i>	
<i>· Marine pollutant:</i>	No
<i>· Special precautions for user</i>	Not applicable.
<i>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</i>	Not applicable.
<i>· UN "Model Regulation":</i>	Void

## 15 Regulatory information

*· Safety, health and environmental regulations/legislation specific for the substance or mixture*

*· Sara*

*· Section 355 (extremely hazardous substances):*

*None of the ingredients are listed.*

*· Section 313 (Specific toxic chemical listings):*

*None of the ingredients are listed.*

*· TSCA (Toxic Substances Control Act):*

*One or more substances contained in this material are not listed on the TSCA Inventory.  
Contact VOCO for more information.*

*· Proposition 65*

*· Chemicals known to cause cancer:*

*None of the ingredients are listed.*

*· Chemicals known to cause reproductive toxicity for females:*

*None of the ingredients are listed*

*· Chemicals known to cause reproductive toxicity for males:*

*None of the ingredients are listed*

*· Chemicals known to cause developmental toxicity:*

*None of the ingredients are listed*

*· Cancerogenity categories*

*· EPA (Environmental Protection Agency)*

*None of the ingredients are listed*

*· TLV (Threshold Limit Value established by ACGIH)*

*Contact VOCO for more information.*

*· NIOSH-Ca (National Institute for Occupational Safety and Health)*

*None of the ingredients are listed*

*· GHS label elements*

*The product is classified and labeled according to the Globally Harmonized System (GHS).*

*· Hazard pictograms GHS07*

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 09/21/2016

Reviewed on 09/21/2016

**Trade name: Bifix QM catalyst**

(Contd. of page 5)

- **Signal word** Warning
- **Hazard statements**
  - Causes skin and eye irritation.
  - May cause an allergic skin reaction.
- **Precautionary statements**
  - Wear protective gloves / eye protection.
  - Wear protective clothing.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - If skin irritation occurs: Get medical advice/attention.
  - If eye irritation persists: Get medical advice/attention.
  - IF ON SKIN: Wash with plenty of soap and water.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

### 16 Other information

The information contained herein is based on our present knowledge and is believed to be correct at the date issued. The information is subject to change without notice. However, all information, statements, recommendations or suggestions shall not constitute any guarantee, representation or warranty, expressed or implied.

Final determination whether the product is fit and suitable for a particular purpose and the user's method of use or application is the sole responsibility of the user.

- **Department issuing SDS:** Scientific department
- **Contact:** Tel.: +49 (0)4721-719-0
- **Date of preparation / last revision** 09/21/2016 / 9
- **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
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - 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)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  - Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B
  - 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.**

US