

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.08.2012

Version: 4

Revision: 10.10.2007

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

- **Product identifier**
- **Trade name:** ReVeneer Base
- **Article number:** 232210-1
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Auxiliary for manufacture of dental prothesis
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Schütz Dental GmbH, Dieselstrasse 5-6, D-61191 Rosbach v.d.H. (Germany)
Tel.: +49 (0)6003/814-0 Fax: +49 (0)6003/814-900
www.schuetz-dental.de; e-mail: info@schuetz-dental.de
- **Further information obtainable from:** F&E, Tel. +49 (0)6003/814-100
- **Emergency telephone number:** +49 (0)6003/814-0 (8:00-17:00 h)

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The product is not classified according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC not applicable**
- **Information concerning particular hazards for human and environment:**
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Liquid based on methacryl acid ester, containing an activator.
- **Dangerous components:** Void
- **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **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. Then consult a doctor.
- **After swallowing**
Rinse out mouth and then drink plenty of water.
Seek medical treatment.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **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.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
No special measures required.
Do not inhale explosion gases or combustion gases.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Keep people at a distance and stay on the windward side.
- **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).
Dispose contaminated material as waste according to item 13.
- **Reference to other sections** No dangerous substances are released.

7 Handling and storage

- **Handling**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **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:**
Close container immediately after use and protect product from light incidence.
Storage between 10 °C and 25 °C.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **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.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures** Immediately remove all soiled and contaminated clothing
- **Respiratory protection:** Not required.
- **Protection of hands:** Protective gloves.

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- **Material of gloves** Butyl rubber, BR
- **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

· Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Pasty
· Colour:	Light green
· Odour:	Weak, characteristic
· Odour threshold:	Not determined.

· **pH-value:** Not determined.

· Change in condition

· Melting point/Melting range:	undetermined
· Boiling point/Boiling range:	251°C

· **Flash point:** 151°C

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

· **Ignition temperature:** 370°C

· **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 determined.

· **Density:** Not determined

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· Solubility in / Miscibility with

· **Water:** Not miscible or difficult to mix

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

· Viscosity:

· dynamic:	Not determined.
· kinematic:	Not determined.

· Solvent content:

· **Organic solvents:** 0.0 %

· **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.

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- **Possibility of hazardous reactions** Exothermic polymerization
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**
In presence of radical formers (e. g. peroxides), deoxidizing substances, and/or heavy metal ions, polymerization with heat release is possible.
- **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values relevant for classification:** LD50 > 5000 mg/kg rat
- **Primary irritant effect:**
- **on the skin:** Slightly irritating.
- **on the eye:** Slightly irritating.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour 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 2 (German Regulation) (Self-assessment): hazardous for water.
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.
- **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**
After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.

- **European waste catalogue**

08 01 12	waste paint and varnish other than those mentioned in 08 01 11
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- **Uncleaned packaging:**
- **Recommendation:**
Packagings that may not be cleansed are to be disposed of in the same manner as the product.

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· **Recommended cleansing agents:** Alcohol**14 Transport information**

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

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** F & E· **Contact:** Dr. U. Krichbaum· **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)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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

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1 Identification of substance:

· **Product details:**

· **Trade name:** ReVeneer Primer

· **Article number:** 232211-1

· **Application of the substance / the preparation** Dental bonding material

· **Manufacturer/Supplier:**

Schütz Dental GmbH, Dieselstrasse 5-6, D-61191 Rosbach v.d.H. (Germany)

Tel.: +49 (0)6003/814-0 Fax: +49 (0)6003/814-900

www.schuetz-dental.de; e-mail: info@schuetz-dental.de

· **Further information obtainable from:** F&E, Tel. +49 (0)6003/814-100

· **Information in case of emergency:** +49 (0)6003/814-0 (8:00-17:00 h)

2 Hazards identification

· **Hazard description:**



Xi Irritant

F Highly flammable

· **Information concerning to particular hazards to man and environment**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 11 Highly flammable.

R 37/38 Irritating to respiratory system 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.

· **GHS label elements**



Danger

H225 - Highly flammable liquid and vapour.



Warning

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H335 - May cause respiratory irritation.

· **Prevention:**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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

· **Response:**

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

P321 Specific treatment (see on this label).

· **Storage:**

P405 Store locked up.

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- **Disposal:**
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

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

- **Dangerous components:**

CAS: 80-62-6	methyl methacrylate	Xi, F; R 11-37/38-43	75-100%
EINECS: 201-297-1		Danger: 2.6/2	
		Warning: 3.2/2, 3.4.S/1, 3.8/3	

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

4 First aid measures

- **General information** Immediately remove any clothing soiled by the product.
- **After inhalation**
Take affected persons into fresh air and keep quiet.
Seek medical treatment.
- **After skin contact**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.

5 Fire fighting measures

- **Suitable extinguishing agents**
Foam
Fire-extinguishing powder
Carbon dioxide
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Person-related safety precautions:**
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
Keep away from ignition sources
Use respiratory protective device against the effects of fumes/dust/aerosol.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.

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- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.

7 Handling and storage

- **Handling**
- **Information for safe handling:** Keep receptacles tightly sealed.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Close container immediately after use and protect product from light incidence.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Protect from heat and direct sunlight.

8 Exposure controls and personal protection gear

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

Ingredients with limit values that require monitoring at the workplace:

80-62-6 methyl methacrylate

OES	Short-term value: 416 mg/m ³ , 100 ppm
	Long-term value: 208 mg/m ³ , 50 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
Not necessary if room is well-ventilated.
Use suitable respiratory protective device when high concentrations are present.
Short term filter device:
Filter AX.
- **Protection of hands:** Solvent resistant gloves
- **Material of gloves:** Butyl rubber, BR
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses
- **Body protection:**
Solvent resistant protective clothing
(Only when handling large quantities)

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9 Physical and chemical properties:

· General Information

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

· Change in condition

Melting point/Melting range:	-48°C
Boiling point/Boiling range:	101°C

· Flash point:	10°C
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· Ignition temperature:	430°C
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· Self-igniting:	Product is not selfigniting.
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· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
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· Explosion limits:

Lower:	2.1 Vol %
Upper:	12.5 Vol %

· Vapour pressure at 20°C:	47 hPa
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· Density at 20°C:	0.94 g/cm ³
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· Solubility in / Miscibility with

Water at 20°C:	1.6 g/l
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· pH-value:	Not determined
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· Viscosity:

dynamic:	Not determined
kinematic:	Not determined

· Solvent content:

Organic solvents:	0.0 %
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10 Stability and reactivity

· Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

· Materials to be avoided:

In presence of radical formers (e. g. peroxides), deoxidizing substances, and/or heavy metal ions, polymerization with heat release is possible.

· Dangerous reactions

Reacts with peroxides and other radical forming substances
Danger of polymerization

· Dangerous decomposition products: No dangerous decomposition products known

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11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values relevant for classification:**
 methyl methacrylate LD-50 oral >5000 mg/kg rat (lit.)
 LD-50 inhalativ 7093 ppm/4h rat (lit.)
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No 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:

- **Behaviour in environmental systems:**
- **Components:**
 methyl methacrylate Biodegradability: 30,7 %
 Time: 28 d
 Method: OECD 301 C
 Valuation: difficult to decompose
- **Ecotoxicological effects:**
- **Acquatic toxicity:**
- **Type of test** **Effective concentration** **Method** **Assessment**
 Toxicity to fish: LC-50: >79 mg/l OECD 203
 (MMA) NOEC: 40 mg/l ISO 7346
 Time: 96 h EEC84
 Species:
 Oncorhynchus mykiss
- Toxicity to Micro- ECO: 100 mg/l starting inhibition
 Organisms Species: of cell growth
 (MMA) Pseudomonas putida
- **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

- **Product:**
 - **Recommendation**
 Must be specially treated adhering to official regulations.
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
 - **European waste catalogue**
- | | |
|----------|--|
| 07 01 04 | other organic solvents, washing liquids and mother liquors |
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· **Uncleaned packaging:**· **Recommendation:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

· **Recommended cleansing agents:** Alcohol

14 Transport information

· **Land transport ADR/RID (cross-border)**· **ADR/RID class:** 3 (F1) Flammable liquids.· **Danger code (Kemler):** 339· **UN-Number:** 1247· **Packaging group:** II· **Hazard label** 3· **Description of goods:** 1247 METHYL METHACRYLATE MONOMER, STABILIZED, solution· **Maritime transport IMDG:**· **IMDG Class:** 3· **UN Number:** 1247· **Label** 3· **Packaging group:** II· **EMS Number:** F-E,S-D· **Marine pollutant:** No· **Proper shipping name:** METHYL METHACRYLATE MONOMER, STABILIZED, solution· **Air transport ICAO-TI and IATA-DGR:**· **ICAO/IATA Class:** 3· **UN/ID Number:** 1247· **Label** 3· **Packaging group:** II· **Proper shipping name:** METHYL METHACRYLATE MONOMER, STABILIZED, solution· **UN "Model Regulation":**

UN1247, METHYL METHACRYLATE MONOMER, STABILIZED, solution, 3, II

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15 Regulations

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

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

Xi Irritant
F Highly flammable

· **Hazard-determining components of labelling:**

methyl methacrylate

· **Risk phrases:**

11 Highly flammable.
37/38 Irritating to respiratory system and skin.
43 May cause sensitisation by skin contact.

· **Safety phrases:**

9 Keep container in a well-ventilated place.
16 Keep away from sources of ignition - No smoking.
23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
24 Avoid contact with skin.
37 Wear suitable gloves.
60 This material and its container must be disposed of as hazardous waste.

· **National regulations**

· **Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.

· **Technical instructions (air):**

Class	Share in %
NK	75-100

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant R-phrases**

11 Highly flammable.
37/38 Irritating to respiratory system and skin.
43 May cause sensitisation by skin contact.

· **Department issuing MSDS: F & E**

· **Contact:** Dr. U. Krichbaum

· **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)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association

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IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· * Data compared to the previous version altered.

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