Printing date 23.11.2015 Version: 8 Revision: 23.11.2015

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

· 1.1 Product identifier

· Trade name: Relight, Haftvermittler

· Article number: 689123-1

· 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

· Application of the substance / the mixture Adhering additive

· 1.3 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

· 1.4 Emergency telephone number:

+49 (0) 6003 8140 Schütz Dental (8:00 - 17:00 Uhr) or

+49 (0) 6131 19240 Poison Information Center, University Mainz (24 h)

SECTION 2: Hazards identification

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

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

Skin Irrit. 2 H315 Causes skin irritation.

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

STOT SE 3 H335 May cause respiratory irritation.

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

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

· Hazard pictograms





GHS02

· Signal word Danger

· Hazard-determining components of labelling:

methyl methacrylate

· Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

· Precautionary statements

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

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

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).

P405 Store locked up.

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

regulations.

(Contd. on page 2)

Printing date 23.11.2015 Version: 8 Revision: 23.11.2015

Trade name: Relight, Haftvermittler

(Contd. of page 1)

- · Labelling of packages where the contents do not exceed 125 ml
- · Hazard pictograms





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

methyl methacrylate

· Hazard statements

H317 May cause an allergic skin reaction.

· Precautionary statements

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

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

P321 Specific treatment (see on this label). P363 Wash contaminated clothing before reuse.

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

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

regulations.

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

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · Description: Liquid based on methacryl acid ester.

· Dangerous components:		
	methyl methacrylate	
	♠ Flam. Liq. 2, H225; ♦ Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	

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

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information Immediately remove any clothing soiled by the product.
- · After inhalation

Take affected persons into fresh air and keep quiet.

Seek medical treatment in case of complaints.

· 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. Then consult a doctor.
- · After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

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

No further relevant information available.

75-100%

Printing date 23.11.2015 Version: 8 Revision: 23.11.2015

Trade name: Relight, Haftvermittler

(Contd. of page 2)

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents

Carbon dioxide

Fire-extinguishing powder

Foam

Water spray

- · For safety reasons unsuitable extinguishing agents Water with full jet.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Wear protective clothing.

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources

· 6.2 Environmental precautions:

Prevent seepage into sewage system, workpits and cellars.

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

· 6.3 Methods and material for containment and cleaning up:

When pumping out, please ensure grounding.

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

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· 6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Use explosion-proof apparatus / fittings and spark-proof tools.

Fumes can combine with air to form an explosive mixture.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage
- Requirements to be met by storerooms and receptacles: Storage between 10 °C and 25 °C.
- · Information about storage in one common storage facility: -
- Further information about storage conditions: Protect from exposure to the light.
- \cdot 7.3 *Specific end use*(s) *No further relevant information available.*

CD

Trade name: Relight, Haftvermittler

(Contd. of page 3)

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

80-62-6 methyl methacrylate

WEL Short-term value: 416 mg/m³, 100 ppm Long-term value: 208 mg/m³, 50 ppm

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment
- · General protective and hygienic measures

Do not inhale gases / fumes / aerosols.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

· Respiratory protection:

Not necessary if room is well-ventilated.

Use suitable respiratory protective device when high concentrations are present.

Filter A

- · Protection of hands: Solvent resistant gloves
- · Material of gloves Butyl rubber, BR
- · Penetration time of glove material

 $0.1 - 0.2 \, mm$

Penetration time: 5 min.
• Eye protection: Safety glasses

· Body protection:

Protective work clothing.

(Only when handling large quantities)

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties · General Information		
· Appearance:		
Form:	Fluid	
Colour:	Colourless	
· Odour:	Ester-like	
· Odour threshold:	Not determined.	
· pH-value:	Not determined.	
· Change in condition Melting point/Melting range: Boiling point/Boiling range:	-48 °C 101 °C (1013 hPa)	
· Flash point:	10 °C (DIN 51755)	
· Flammability (solid, gaseous)	Not applicable.	
· Ignition temperature:	430 °C (DIN 51794)	
\cdot Decomposition temperature:	Not determined.	
· Self-igniting:	Product is not selfigniting.	
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.	

(Contd. on page 5)

Printing date 23.11.2015 Version: 8 Revision: 23.11.2015

Trade name: Relight, Haftvermittler

		(Contd. of page 4
· Explosion limits:		
Lower:	2.1 Vol %	
Upper:	12.5 Vol %	
· Vapour pressure at 20 °C:	47 hPa	
· Density at 20 °C:	0.94 g/cm^3	
· Relative density	Not determined.	
· Vapour density	Not determined.	
· Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
Water at 20 °C:	15.9 g/l	
· Partition coefficient (n-octanol/wa	ter): Not determined.	
· Viscosity:		
dynamic at 20 °C:	0.6 mPas ((Brookfield))	
kinematic:	Not determined.	
· 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions Exothermic polymerization
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials:

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

· 10.6 Hazardous decomposition products: -

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · 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:
- · Skin corrosion/irritation Irritant to skin and mucous membranes.
- · Serious eye damage/irritation No irritating effect.
- · Respiratory or skin sensitisation Sensitisation possible through skin contact.
- · Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

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

Printing date 23.11.2015 Version: 8 Revision: 23.11.2015

Trade name: Relight, Haftvermittler

(Contd. of page 5)

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 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

- · 12.2 Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Components:

methyl methacrylate Biodegradability: 30,7 %

Time: 28 d

Method: OECD 301 C

Valuation: difficult to decompose

- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil 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.

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

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must 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

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

:	SECTION 14: Transport information	
	· 14.1 UN-Number · ADR, IMDG, IATA	UN1247
	· 14.2 UN proper shipping name · ADR	1247 METHYL METHACRYLATE MONOMER,
	· IMDG, IATA	STABILIZED solution METHYL METHACRYLATE MONOMER, STABILIZED solution

(Contd. on page 7)

Trade name: Relight, Haftvermittler

(Contd. of page 6) · 14.3 Transport hazard class(es) $\cdot ADR$ · Class 3 (F1) Flammable liquids. ·Label · IMDG, IATA · Class 3 Flammable liquids. · Label 3 · 14.4 Packing group II· ADR, IMDG, IATA · 14.5 Environmental hazards: No · Marine pollutant: · 14.6 Special precautions for user Warning: Flammable liquids. · Danger code (Kemler): 339 · EMS Number: F-E,S-D· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. · Transport/Additional information: $\cdot ADR$ · Limited quantities (LQ) 1L· Excepted quantities (EQ) Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml · Transport category · Tunnel restriction code D/E· IMDG · Limited quantities (LQ) 1L· Excepted quantities (EQ) Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml UN1247, METHYL METHACRYLATE MONOMER, · UN ''Model Regulation'': STABILIZED solution, 3, II

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.

(Contd. on page 8)

Trade name: Relight, Haftvermittler

(Contd. of page 7)

- · National regulations
- · Technical instructions (air):

Class	Share in %
II	75-100

- · Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

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

· Relevant phrases

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

- · Department issuing MSDS: F & E
- · Contact: Dr. U. Krichbaum
- · Abbreviations and acronyms:

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

ICAO: International Civil Aviation Organisation

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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

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

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

* Data compared to the previous version altered.

GB ·