

# safety data sheet

# to product

# **Visio Link**

# 1. Identification of the substance / preparation and company

# **Emergency number:**

Tox Info Suisse, Freiestrasse 16, 8032 Zürich; Tox-Info Suisse: 145 (24h-operation); info@toxinfo.ch; **In case of emergency: Tel. 145**; (abroad: +41 44 251 51 51); information: +41 44 251 66 66

# **Company name:**

abcdental products & services	abc dental ag	Gaswerkstrasse 6, 8952 Schlieren Tel. 044 755 51 00, Fax 044 755 51 01
C NDOR  A MENRY SCHEIN* COMPANY	Condor Dental Research CO Sàrl	Ch. des Cibleries 2, CP 300, 1896 Vouvry Tel. 024 482 61 61, Fax 024 482 61 69
curaden	Curaden AG Dentaldepot	Riedstrasse 12, 8953 Dietikon Tel. 041 319 45 00, Fax 041 319 45 90
dema dent	dema dent AG	Furtbachstrasse 16, 8107 Buchs Tel. 044 838 65 65, Fax 044 838 65 66
Flexdental	Flexdental Services SA	Route de la Corniche 1, 1066 Epalinges Tel. 0848 336 825, Fax 021 907 67 02
JORDI Röntgentechnik	Jordi Röntgentechnik AG	Dammstrasse 70, 4142 Münchenstein Tel. 061 417 93 93, Fax 061 417 93 94
KALADENT	Kaladent AG	Schachenstrasse 2, 9016 St. Gallen Tel. 071 282 80 80, Fax 071 282 80 81
LOMETRAL Die Zahnarztausstatter.	Lometral AG	Binzenholzstrasse 20, 5704 Egliswil Tel. 062 775 05 05, Fax 062 775 33 07
<b>//O//</b> ADENT	Novadent AG	Sägereistrasse 17, 8152 Glattbrugg Tel. 044 880 20 20, Fax 044 811 04 40
Smart Dentist Ich kann auch so!	Smart Dentist AG	Verenastrasse 4b, 8832 Wollerau Tel. 044 726 20 20, Fax 044 726 20 25

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

· 1.1 Product identifier

· Trade name: visio.link

· Article number: VLPMMA10

· 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: Primer.

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier: bredent GmbH & Co.KG Weißenhorner Straße 2

89250 Senden

*Tel:* +49 (0) 7309/872-0 *Fax:* +49 (0) 7309/872-24

· Further information obtainable from:

R & D

e-mail: R.D@bredent.com

· 1.4 Emergency telephone number: (001) 352 323 3500

# SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Remark

The device is a medical device pursuant to Council Directive 93/42/EEC of 14 June 1993 concerning medical devices. No safety data sheet is required for the device, so no claim is made to full compliance with the relevant statutory requirements.

· Classification according to Regulation (EC) No 1272/2008



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



Eye Dam. 1 H318 Causes serious eye damage.



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.

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

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

Medical products and medical devices within the meaning of Directives 90/385/EEC and 93/42/EEC used in an invasive manner or in direct contact with the body as well as medical products and medical devices falling under Directive 98/79/EC are fully exempt from the provisions of the CLP Regulation and therefore do not need to be classified, packaged or labelled.

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

- · Hazard pictograms GHS02, GHS05, GHS07
- · Signal word Danger
- · Hazard-determining components of labelling: methyl methacrylate

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2-propenoic acid reaction products with pentaerythritol

#### · Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

#### · Precautionary statements

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

smoking.

P261 Avoid breathing vapours.

*P280* Wear protective gloves / eye protection.

P302+P350 IF ON SKIN: Gently wash with plenty of soap and water.

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

present and easy to do. Continue rinsing.

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

regulations.

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

# SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · Description: Mixture of dimethacrylates, initiators and stabilizers.

· Dangerous components	S:	
CAS: 80-62-6	methyl methacrylate	50-100%
EINECS: 201-297-1	<ul> <li>Flam. Liq. 2, H225</li> <li>Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335</li> </ul>	
	Acryliertes Harz	10-50%
	♦ Skin Irrit. 2, H315; Eye Irrit. 2, H319	1
CAS: 1245638-61-2	2-propenoic acid reaction products with pentaerythritol	10-25%
EC number: 629-850-6		
	Aquatic Chronic 2, H411	
	♦ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317	
CAS: 75980-60-8	diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide	≤3%
EINECS: 278-355-8	<b>♦</b> Repr. 2, H361	
CAS: 79-10-7	acrylic acid	≤1%
EINECS: 201-177-9	<b>ⓑ</b> Flam. Liq. 3, H226	1
	Skin Corr. 1A, H314	
	🕹 Aquatic Acute 1, H400	
	♦ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	

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

### SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · After inhalation:

Supply fresh air.

Seek medical treatment in case of complaints.

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

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· After skin contact:

Seek medical treatment.

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.
- 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.

# **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

Carbon dioxide

Foam

Fire-extinguishing powder

CO2, sand, extinguishing powder. Do not use water.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture

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

- 5.3 Advice for firefighters
- Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### SECTION 6: Accidental release measures

#### · 6.1 Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.

Ensure adequate ventilation

*Use respiratory protective device against the effects of fumes/dust/aerosol.* 

Avoid skin and eye contact.

Wear protective clothing.

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

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

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

· 6.3 Methods and material for containment and cleaning up:

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

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

# SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

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#### · Information about fire - and explosion protection:

Fumes can combine with air to form an explosive mixture.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- · Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Store in a cool location.

- Information about storage in one common storage facility: Store away from oxidising agents.
- · Further information about storage conditions:

Protect from exposure to the light.

Store receptacle in a well ventilated area.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

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

### SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · 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 (50-100%)

WEL (Great Britain) 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:

Use skin protection cream for skin protection.

Do not eat, drink, smoke or sniff while working.

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

#### · Respiratory protection:

Not required if the workplace-related limit values to be monitored are observed (see 8.1).

If workplace exposure limit is exceeded apply Respirator with brown A-type filter.

In case of intensive or longer exposure use self-contained respiratory protective device.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

### · Protection of hands:

Check protective gloves prior to each use for their proper condition.



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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### · Material of gloves

Butyl rubber, BR

Recommended thickness of the material:  $\geq 0.5$  mm

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 penetration time has to be at least 60 minutes (Permeation according to EN 374 Part 3: Level 3). (based on the main component(s) listed in Section 3.2)

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

· Eye protection:



Tightly sealed goggles

· Body protection: Protective work clothing

# SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
· Appearance: Form:	Fluid
Colour:	Colourless
· Odour:	Pungent
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	· 100 °C
· Flash point:	10 °C
· Flammability (solid, gas):	Undetermined.
· Ignition temperature:	430 °C
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	2.1 Vol %
Upper:	12.5 Vol %
· Vapour pressure at 20 °C:	47 hPa
· Density at 20 °C:	1.1 g/cm³
Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
Solubility in / Miscibility with	Not missible an difficult to min
water:	Not miscible or difficult to mix.

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· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
· Solvent content:		
Solids content:	0.0 %	
· 9.2 Other information	No further relevant information available.	

# SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions

Reacts with reducing agents.

Reacts with heavy metals.

Reacts with peroxides and other radical forming substances.

Photoreactive.

Exothermic polymerisation.

- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

# SECTION 11: Toxicological information

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

· LD/LC50 values relevant for classification:		
80-62-6 methyl methacrylate		
		>5,000 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	LC50/4h	29.8 mg/l (rat)
75980-60-8 diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide		
Oral	LD50	>5,000 mg/kg (rat)

- Primary irritant effect:
- · Skin corrosion/irritation

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

- · Additional toxicological information:
- · 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.

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· Aspiration hazard Based on available data, the classification criteria are not met.

# SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity:

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Harmful to fish
- · 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.

Harmful to aquatic organisms

- · 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.

Smaller quantities of cured material may be disposed off together with household waste.

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

- · Uncleaned packaging:
- · Recommendation:

Packaging may be reused or recycled after cleaning.

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

# SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN1247
· 14.2 UN proper shipping name · ADR	1247 METHYL METHACRYLATE MONOMER, STABILIZED
· IMDG, IATA	METHYL METHACRYLATE MONOMER, STABILIZED

- · 14.3 Transport hazard class(es)
- · ADR, IMDG, IATA



· Class 3 Flammable liquids.

· Label

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14.4 Packing group ADR, IMDG, IATA	II
14.5 Environmental hazards: Marine pollutant:	No
14.6 Special precautions for user Hazard identification number (Kemler code): EMS Number: Stowage Category Stowage Code	Warning: Flammable liquids. 33 F-E,S-D C SWI Protected from sources of heat. SW2 Clear of living quarters.
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	o <b>f</b> Not applicable.
Transport/Additional information:	
ADR Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
Transport category Tunnel restriction code	Naximum nei quantity per outer packaging. 300 ml 2 D/E
IMDG Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":	UN 1247 METHYL METHACRYLATE MONOME STABILIZED, 3, II

# **SECTION 15: Regulatory information**

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to Regulation (EC) No 1272/2008

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

- · Hazard pictograms GHS02, GHS05, GHS07
- · Signal word Danger
- · Hazard-determining components of labelling:

methyl methacrylate

2-propenoic acid reaction products with pentaerythritol

· Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements

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

smoking.

*P261* Avoid breathing vapours.

*P280* Wear protective gloves / eye protection.

*P302+P350 IF ON SKIN: Gently wash with plenty of soap and water.* 

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

present and easy to do. Continue rinsing.

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

regulations.

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t
- · 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.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H361 Suspected of damaging fertility or the unborn child.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

- · Department issuing SDS: R & D
- · Contact: R & D

#### · Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

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

Eye Dam. 1: Serious eye damage/eye irritation — Category 1 Eye Irrit. 2: Serious eye damage/eye irritation — Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 2: Reproductive toxicity – Category 2

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

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

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

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

\* Data compared to the previous version altered.

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