

Revision: 11.05.2022

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

Printing date 11.05.2022

Version number 7 (replaces version 6)

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

- · 1.1 Product identifier
 - · Trade name: Technovit 2210
- · 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
 Lightcuring material for fixing, filling and sealing of specimens
- · 1.3 Details of the supplier of the safety data sheet
 - · Manufacturer/Supplier:

Kulzer GmbH

Leipziger Straße 2, 63450 Hanau (Germany) Tel.: +49 (0)6181 9689-2570 (Wehrheim)

- Informing department: email: technik.wehrheim@kulzer-dental.com
- · 1.4 Emergency telephone number: Emergency CONTACT (24-Hour-Number): +49 (0)6132-84463

SECTION 2: Hazards identification

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

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

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

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

· Hazard pictograms



- GHS07
- · Signal word Warning
- · Hazard-determining components of labelling:

triethylen glycol dimethacrylate

methyl methacrylate

· Hazard statements

H317 May cause an allergic skin reaction.

Precautionary statements

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

P273 Avoid release to the environment.

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

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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

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

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
 - · Description: -

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Dangerous components:		
	triethylen glycol dimethacrylate Skin Sens. 1B, H317	10-25%
	bisphenol a polyethylene glycol diether dimethacrylate Aquatic Chronic 4, H413	≥0-≤5%
EINECS: 201-297-1 Reg.nr.: 01-2119452498-28-xxxx	methyl methacrylate Flam. Lig. 2, H225 Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	≥0.1-<1%
	Oxybenzone Aquatic Acute 1, H400; Aquatic Chronic 2, H411	≥0.25-<1%

· 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

General information

Personal protection for the First Aider.

Instantly remove any clothing soiled by the product.

· After inhalation Supply fresh air; consult doctor in case of symptoms.

· After skin contact

Instantly wash with water and soap and rinse thoroughly. If skin irritation or rash occurs: Get medical advice/attention.

After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor. Remove contact lenses, if present and easy to do. Continue rinsing.

After swallowing

Rinse out mouth and then drink plenty of water. In case of persistent symptoms consult doctor.

- · 4.2 Most important symptoms and effects, both acute and delayed Allergic reactions
- · 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

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents Water with a full water jet.

5.2 Special hazards arising from the substance or mixture

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

Can be released in case of fire

Carbon dioxide (CO2)

Carbon monoxide (CO)

5.3 Advice for firefighters

Protective equipment:Wear self-contained breathing apparatus.

(EN 133)

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· Additional information

Cool endangered containers with water spray jet.

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

Avoid contact with eyes and skin.

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources

6.2 Environmental precautions:

Do not allow to enter the ground/soil.

Do not allow to enter drainage system, surface or ground water.

Damp down gases/fumes/haze with water spray jet.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).

Send for recovery or disposal in suitable containers.

6.4 Reference to other sections

See Section 8 for information on personal protection equipment.

See Section 7 for information on safe handling

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Prevent formation of aerosols.

Avoid contact with eyes and skin.

Ensure good ventilation/exhaustion at the workplace.

Keep away from heat and direct sunlight.

Information about protection against explosions and fires:

Protect from heat.

Keep ignition sources away - Do not smoke.

· Handling

do not mix with

organic peroxides

amine

Strong bases

Strong acids

Radical initiator

reducing agent

Strong oxidizers

Water.

· 7.2 Conditions for safe storage, including any incompatibilities

Storage

· Requirements to be met by storerooms and containers: Store in cool location.

Information about storage in one common storage facility:

Store away from foodstuffs.

Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

Further information about storage conditions: Store cool (not above 25 °C).

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

GB ·



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8.1 Contro	ol parameters				
		ical valu	es that require	monitoring at the workplace:	
80-62-6 m	ethyl methacry	late			
WEL (Gre	at Britain)	Short-teri	m value: 416 m	g/m³, 100 ppm	
			n value: 208 mg		
IOELV (Et			m value: 100 pp n value: 50 ppn		
· DNI					
	riethylen glycol	dimetha	acrylate		
Oral				8.33 mg/Kg (not defined)	
Dermal	worker industria	_	-	13.9 mg/Kg/d (not defined)	
	general populati	_	-	,	
Inhalative		_	-	48.5 mg/m3 (not defined)	
	general populati	_	•	• ,	
41637-38-				ther dimethacrylate	
Oral	general populati			-	
Dermal	worker industria	_	-	140 mg/Kg/d (not defined)	
	general populati			,	
Inhalative	worker industria	_	-	98.7 mg/m3 (not defined)	
	general populati	_	-	- , , , , ,	
80-62-6 m	ethyl methacry			,	
Oral	general populati	ion, long	term, systemic	8.2 mg/Kg (not defined)	
Dermal	worker industria	I, long te	rm, systemic	13.67 mg/Kg/d (not defined)	
	general populati	ion, long	term, systemic	8.2 mg/Kg/d (not defined)	
Inhalative	worker industria	I, acute, l	local	416 mg/m3 (not defined)	
	worker industria	I, long te	rm, systemic	348.4 mg/m3 (not defined)	
	worker industria	I, long te	rm, local	208 mg/m3 (not defined)	
	general populati	ion, acute	e, local	208 mg/m3 (not defined)	
	general populati	ion, long	term, systemic	74.3 mg/m3 (not defined)	
131-57-7 (Oxybenzone				
Oral	general populati	ion, long	term, systemic	2 mg/Kg (not defined)	
Dermal	worker industria	I, long te	rm, systemic	39 mg/Kg/d (not defined)	
	general populati	ion, long	term, systemic		
Inhalative	worker industria	I, long te	rm, systemic	27.7 mg/m3 (not defined)	
	general populati	ion, long	term, systemic	6.8 mg/m3 (not defined)	
· PNI					
	riethylen glycol	dimetha			
freshwatei			0.016 mg/l (no	,	
marine wa			0.002 mg/l (no	•	
_	eatment plant		1.7 mg/l (not d	•	
	dry weight, fresh dry weight, marii		0.185 mg/Kg (not defined) not defined)	



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soil, dry weight	0.027 mg/Kg (not defined)
80-62-6 methyl methacrylate	
freshwater	0.94 mg/l (not defined)
marine water	0.094 mg/l (not defined)
sewage treatment plant	10 mg/l (not defined)
sediment, dry weight, freshwater	10.2 mg/Kg (not defined)
sediment, dry weight, marine water	0.102 mg/Kg (not defined)
soil, dry weight	1.48 mg/Kg (not defined)
131-57-7 Oxybenzone	
freshwater	0.00067 mg/l (not defined)
marine water	0.000067 mg/l (not defined)
sewage treatment plant	10 mg/l (not defined)
sediment, dry weight, freshwater	0.066 mg/Kg (not defined)
sediment, dry weight, marine water	0.007 mg/Kg (not defined)
soil, dry weight	0.013 mg/Kg (not defined)

[·] Additional information: The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

- Appropriate engineering controls No further data; see item 7.
- Individual protection measures, such as personal protective equipment
 - General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals.

Do not eat or drink while working.

Avoid contact with the eyes and skin.

Instantly remove any soiled and impregnated garments.

Keep away from foodstuffs, beverages and food.

Wash hands during breaks and at the end of the work.

Breathing equipment:

Use breathing protection in case of insufficient ventilation.

Filter A/P2.

Hand protection

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.

chemical protection gloves are suitable, which are tested according to EN 374

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

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

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.

NBR: acrylonitrile-butadiene rubber (0,11 mm)

· Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed. >30 min

- · Eye/face protection eye protection (EN 166)
- · Body protection: Light weight protective clothing

Environmental exposure controls

Do not allow to enter the ground/soil.

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Do not allow to enter drainage system, surface or ground water.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

General Information

· Physical state Fluid

· Colour: Different according to colour

· **Smell:** Odourless

Odour threshold:
Not determined.

Melting point/freezing point:
Not determined

· Boiling point or initial boiling point and

boiling range 100 °C (80-62-6 methyl methacrylate)

· Flammability Not applicable.

· Lower and upper explosion limit

· Lower: Not determined. · Upper: Not determined.

Flash point: >100 °C (109-16-0 triethylen glycol

dimethacrylate)

· Ignition temperature: 255 °C (109-16-0 triethylen glycol

dimethacrylate) Not determined.

· Decomposition temperature: No

·SAPT

Technovit 2210 >300 °C

·SADT

pH Not determined.

Viscosity:

Kinematic viscositydynamic:Not determined.Not determined.

Solubility Water:

Water: Not miscible or difficult to mix

· Partition coefficient n-octanol/water (log

value) Not determined.

Steam pressure at 20 °C: 37 hPa (80-62-6 methyl methacrylate)

· Density and/or relative density

Density
Relative density
Vapour density
Not determined
Not determined
Not determined.

• 9.2 Other information No further relevant information available.

· Appearance:

Form: Pasty

Important information on protection of health and environment, and on safety.

Self-inflammability: Product is not selfigniting.
Explosive properties: Product is not explosive.

· Solvent content:

• **Water:** 3.7 %

· Change in condition

• Evaporation rate Not determined.

· Information with regard to physical hazard

classes

· Explosives Void

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· Flammable gases	Void	
· Aerosols	Void	
· Oxidising gases	Void	
· Gases under pressure	Void	
· Flammable liquids	Void	
Flammable solids	Void	
· Self-reactive substances and mixtures	Void	
· Pyrophoric liquids	Void	
· Pyrophoric solids	Void	
· Self-heating substances and mixtures	Void	
· Substances and mixtures, which emit		
flammable gases in contact with water	Void	
· Oxidising liquids	Void	
· Oxidising solids	Void	
· Organic peroxides	Void	
Corrosive to metals	Void	
· Desensitised explosives	Void	

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
 - Conditions to be avoided: No decomposition if used and stored according to specifications.
- 10.3 Possibility of hazardous reactions Exothermic polymerisation
- · 10.4 Conditions to avoid

moisture exposure

Heat, flames and sparks.

10.5 Incompatible materials:

amine

organic peroxides Radical initiator

reducing agent

Strong bases

Strong oxidizers

Strong acids

Water.

10.6 Hazardous decomposition products:

None

Hydrocarbons

Methanole

SECTION 11: Toxicological information

· 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 Acute toxicity Based on available data, the classification criteria are not met.

,	-	
· LD/	LC50 val	ues that are relevant for classification:
109-16-0	triethylen	glycol dimethacrylate
Oral	LD50	8,300 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (mouse)
41637-38	-1 bisphe	nol a polyethylene glycol diether dimethacrylate
Oral	LD50	>2,000 mg/kg (rat) (OECD 423)

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Dermal	LD50	>2,000 mg/kg (rat) (OECD 402)
80-62-6 m	ethyl met	hacrylate
Oral	LD50	~7,900 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (guinea pig) (OECD 402)
Inhalative	LC50/4 h	29.8 mg/l (rat)
131-57-7	Oxybenzo	ne
Oral	LD50	>12,800 mg/kg (rat) (OECD 401)
Dermal	LD50	>16,000 mg/kg (rabbit) (OECD 402)

- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation May cause an allergic skin reaction.
- 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 Based on available data, the classification criteria are not met. 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.
- · 11.2 Information on other hazards
- · Endocrine disrupting properties 131-57-7 Oxybenzone

SECTION 12: Ecological information

•	1	2.	1	T	oxi	city

		·
· A	Aquatic to	oxicity:
109-	·16-0 trie	thylen glycol dimethacrylate
EC5	i0/21d	51.9 mg/L (daphnia) (OECD 211)
LC5	0/96h	16.4 mg/l (fish) (OECD 203)
NOE	EC / 21d	32 mg/l (daphnia) (OECD 211)
ErC:	50 / 72 h	>100 mg/l (algae) (OECD 201)
NOE	EC / 72h	18.6 mg/l (algae) (OECD 201)
EbC	50 / 72h	72.8 mg/l (algae) (OECD 201)
4163	37-38-1 b	pisphenol a polyethylene glycol diether dimethacrylate
LL50	0/96h	>100 mg/L (fish) (OECD 203)
EL5	0/48h	>100 mg/L (daphnia) (OECD 202)
EL5	0/72h	>100 mg/L (algae) (OECD 201)
NOE	EC / 21d	≥0.00224 mg/l (daphnia) (OECD 211)
80-6	2-6 meth	hyl methacrylate
EC5	i0/21d	49 mg/L (daphnia) (OECD 211)
EC5	i0/48h	69 mg/l (daphnia) (EPA OTS 797.1300)
NOE	EC / 21d	37 mg/l (daphnia) (OECD 211)
ErC:	50 / 72 h	>110 mg/l (algae) (OECD 201)
NOE	EC / 72h	110 mg/l (algae) (OECD 201)
NOE	EC / 48h	48 mg/l (daphnia) (EPA OTS 797.1300)
EbC	50 / 72h	>110 mg/l (algae) (OECD 201)
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	9.4 mg/L (fish) (OECD 210)
LC50/ 35d	33.7 mg/L (fish) (OECD 210)
131-57-7 Oxy	benzone
EC50/48h	1.87 mg/l (daphnia) (OECD 202)
LC50/96h	3.8 mg/l (fish) (OECD 203)
ErC50 / 72 h	0.67 mg/l (algae) (OECD 201)
NOEC / 72h	0.18 mg/l (algae) (OECD 201)
NOEC / 96h	0.72 mg/l (fish) (OECD 203)
NOEC / 48h	1.15 mg/l (daphnia) (OECD 202)
· 12.2 Persiste	nce and degradability
109-16-0 triet	thylen glycol dimethacrylate
Biodegradatio	n 85 % /28d (not defined) (OECD 301B; ISO/ 9439/ EEC 92/69/V, C.4-C)
41637-38-1 b	isphenol a polyethylene glycol diether dimethacrylate
Biodegradatio	n 24 % /28d (not defined) (OECD 301D)
80-62-6 meth	yl methacrylate
Biodegradatio	n 94 % /14d (not defined) (OECD 301C)
131-57-7 Oxy	benzone
Biodegradatio	n 60-70 % /28d (not defined)
· 12.3 Bioaccu	mulative potential
131-57-7 Oxy	benzone
Bloconcentrat	tion factor (BCF) >33-<160 (fish) (OECD 305)

- 12.4 Mobility in soil No further relevant information available. 12.5 Results of PBT and vPvB assessment PBT: Not applicable.
- - · vPvB: Not applicable.

12.6 Endocrine disrupting properties
For information on endocrine disrupting properties see section 11.

- · 12.7 Other adverse effects
 - Additional ecological information:
 - General notes:

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

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into soil.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
 - **Recommendation** Smaller quantities can be disposed with household garbage.
 - Uncleaned packagings:
 - Recommendation: Disposal must be made according to official regulations.



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SECTION 14: Transport informat	ion	
· 14.1 UN number or ID number · ADR, IMDG, IATA	Void	
· 14.2 UN proper shipping name · ADR, IMDG, IATA	Void	
· 14.3 Transport hazard class(es)		
· ADR, ADN, IMDG, IATA · Class	Void	
14.4 Packing group ADR, IMDG, IATA	Void	
14.5 Environmental hazards: Marine pollutant:	No	
14.6 Special precautions for user	Not applicable.	
14.7 Maritime transport in bulk accordir IMO instruments	n g to Not applicable.	
· Transport/Additional information:	-	
· UN "Model Regulation":	Void	

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.
 - · Information about limitation of use:

Employment restrictions concerning young persons must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they 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.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

Abbreviations and acronyms:

SADT: Self Accelerating Decomposition Temperature SAPT: Self Accelerating Polymerisation Temperature

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

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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) DNEL: Derived No-Effect Level (GB REACH)
PNEC: Predicted No-Effect Concentration (GB REACH)

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 Skin Irrit. 2: Skin corrosion/irritation – Category 2 Skin Sens. 1: Skin sensitisation – Category 1 Skin Sens. 1B: Skin sensitisation – Category 18

SKIN Sens. 1B: SKIN sensitisation – Category 1B
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 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4

Sources

(EC) 1272/2008: classification, labelling and packaging of substances and mixtures (EC) 1907/2006: GB REACH

ADR/RID/ADN - IDMG - IATA: transport of dangerous goods by road, rail, inland waterway, with maritime vessels and for the air transport

* Data compared to the previous version altered.

GB