

Page 1/10

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

Printing date 16.11.2022

Version number 3

Revision: 16.11.2022

1.1 Droduct identifier	
1.1 Product identifier • Trade name: Charisma Smart	
1.2 Relevant identified uses of the substance or mixture and u No further relevant information available.	ises advised against
• Application of the substance / the mixture Dental filling mate	erial
1.3 Details of the supplier of the safety data sheet • Manufacturer/Supplier: Kulzer GmbH Leipziger Straße 2, 63450 Hanau (Germany)	Tel.: +49 (0)800 4372
Informing department: E-Mail: msds@kulzer-dental.com 1.4 Emergency telephone number: Emergency CONTACT (24-h	Hour-Number): +49 (0)6132-844
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.	
Hazard pictograms	
· Signal word Warning	
 Hazard-determining components of labelling: triethylen glycol dimethacrylate Hazard statements H317 May cause an allergic skin reaction. Precautionary statements P280 Wear protective gloves / eye protection. P280 Wear protective clothing. P302+P352 IF ON SKIN: Wash with plenty of soap and wate P333+P313 If skin irritation or rash occurs: Get medical adv. P363 Wash contaminated clothing before reuse. 2.3 Other hazards - Results of PBT and vPvB assessment 	er. ice/attention.
• PBT: Not applicable. • vPvB: Not applicable.	

 · Dangerous components:

 CAS: 109-16-0
 triethylen glycol dimethacrylate
 ≥1-≤10%

 EINECS: 203-652-6
 Skin Sens. 1B, H317

 Reg.nr.: 01-2119969287-21-xxxx
 (Contd. on page 2)



Page 2/10

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

Printing date 16.11.2022

Version number 3

Revision: 16.11.2022

Trade name: Charisma Smart

	Oxybenzone	<u>(Contd. of page 2</u> 20-<0.25%
EINECS: 205-031-5	Aquatic Acute 1, H400; Aquatic Chronic 2, H411	
EINECS: 201-204-4	methacrylic acid Acute Tox. 3, H311 Skin Corr. 1A, H314; Eye Dam. 1, H318 Acute Tox. 4, H302; Acute Tox. 4, H332; STOT SE 3, H335 ATE: LD50 oral: 1,320 mg/kg LD50 dermal: 500 mg/kg LC50/4 h inhalative: 11 mg/l Specific concentration limit: STOT SE 3; H335: C≥1 %	<i>≥</i> 0-<1%
	2,6-di-tert-butyl-p-cresol Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<i>≥</i> 0.025-<0.25%

• 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; consult doctor in case of symptoms. • After skin contact

Instantly 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 doctor.
- 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
- 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
 - CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam. Use fire fighting measures that suit the environment.
- [•] 5.2 Special hazards arising from the substance or mixture
- No further relevant information available.
- 5.3 Advice for firefighters
 - · Protective equipment: No special measures required.
 - Additional information -

SECTION 6: Accidental release measures

• **6.1 Personal precautions, protective equipment and emergency procedures** Avoid contact with eyes and skin.

• 6.2 Environmental precautions: Prevent material from reaching sewage system, holes and cellars.

(Contd. on page 3)



Page 3/10

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

Printing date 16.11.2022

Version number 3

Revision: 16.11.2022

(Contd. of page 2)

Trade name: Charisma Smart

- · 6.3 Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).
- 6.4 Reference to other sections
- See Section 13 for information on disposal.
- See Section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling No special measures required. • Information about protection against explosions and fires: No special measures required.
- Information about protection against explosions and fires. No special measures rec
- 7.2 Conditions for safe storage, including any incompatibilities
 Storage
 - · Requirements to be met by storerooms and containers: No special requirements.
 - Information about storage in one common storage facility: Not required.
 - Further information about storage conditions: Store cool (not above 25 °C).
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

Components with critical 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. Not required.

DNELs

Oral	general population, long term, systemic	8.33 mg/Kg (not defined)
Dermal	worker industrial, long term, systemic	13.9 mg/Kg/d (not defined)
	general population, long term, systemic	8.33 mg/Kg/d (not defined)
Inhalative	worker industrial, long term, systemic	48.5 mg/m3 (not defined)
	general population, long term, systemic	14.5 mg/m3 (not defined)
131-57-7 (Oxybenzone	·
Oral	general population, long term, systemic	2 mg/Kg (not defined)
Dermal	worker industrial, long term, systemic	39 mg/Kg/d (not defined)
	general population, long term, systemic	20 mg/Kg/d (not defined)
Inhalative	worker industrial, long term, systemic	27.7 mg/m3 (not defined)
	general population, long term, systemic	6.8 mg/m3 (not defined)
79-41-4 m	ethacrylic acid	
Dermal	worker industrial, long term, systemic	4.25 mg/Kg/d (not defined)
	general population, long term, systemic	2.55 mg/Kg/d (not defined)
Inhalative	worker industrial, long term, local	88 mg/m3 (not defined)
	worker professional, long term, systemic	29.6 mg/m3 (not defined)
	general population, long term, systemic	6.3 mg/m3 (not defined)
	general population, long term, local	6.55 mg/m3 (not defined)
128-37-0	2,6-di-tert-butyl-p-cresol	-
Oral	general population, long term, systemic	0.25 mg/Kg (not defined)



Page 4/10

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

Printing date 16.11.2022

Version number 3

Revision: 16.11.2022

Trade name: Charisma Smart

Dermal	worker industrial, long te	rm. svstemic	0.5 mg/Kg/d (not defined)	(Contd. of page
	general population, long		0.25 mg/Kg/d (not defined)	
Inhalative		•	1.76 mg/m3 (not defined)	
	general population, long te		0.435 mg/m3 (not defined)	
· PNI	ECs	-		
109-16-0 1	triethylen glycol dimetha	acrylate		
freshwate	r	0.016 mg/l (not	defined)	
marine wa	nter	0.002 mg/l (not	defined)	
sewage tre	eatment plant	1.7 mg/l (not de	fined)	
sediment,	dry weight, freshwater	0.185 mg/Kg (n	ot defined)	
sediment,	dry weight, marine water	0.018 mg/Kg (n	ot defined)	
soil, dry w	eight	0.027 mg/Kg (n	ot defined)	
131-57-7	Oxybenzone			
freshwater		0.00067 mg/l (not defined)		
marine wa	nter	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 (n	ot defined)	
soil, dry weight 0		0.013 mg/Kg (n	ot defined)	
79-41-4 m	ethacrylic acid	•		
freshwater		0.82 mg/l (not c	lefined)	
marine wa	nter	0.82 mg/l (not defined)		
sewage tre	eatment plant	10 mg/l (not defined)		
soil, dry w	eight	1.2 mg/Kg (not defined)		
128-37-0	2,6-di-tert-butyl-p-creso	İ		
freshwater	r	0.000199 mg/l (not defined)		
marine wa	nter	0.00002 mg/l (not defined)		
sewage tre	eatment plant	0.017 mg/l (not defined)		
sediment,	dry weight, freshwater	0.458 mg/Kg (n	ot defined)	
sediment,	dry weight, marine water	0.046 mg/Kg (n	ot defined)	
soil, dry weight 0.054 m		0.054 mg/Kg (n	ot defined)	

· 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

Wash hands during breaks and at the end of the work. · Breathing equipment: Not necessary if room is well-ventilated.

· Hand protection

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

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 calculated in advance and has therefore to be checked prior to the application. (Contd. on page 5)

GB



Page 5/10

GB

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

Printing date 16.11.2022 Version number 3 Revision: 16.11.2022 Trade name: Charisma Smart (Contd. of page 4) · 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. For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable: Butyl rubber, BR Nitrile rubber, NBR · Eye/face protection Safety glasses Body protection: Light weight protective clothing 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 Not applicable boiling range · Flammability Not applicable. Lower and upper explosion limit Lower: Not determined. · Upper: Not determined. >150 °C (109-16-0 triethylen glycol · Flash point: dimethacrylate) · Decomposition temperature: Not determined. SADT pН Not determined. Viscosity: Kinematic viscosity Not determined. Not determined. · dynamic: Solubility Water: Not miscible or difficult to mix · Partition coefficient n-octanol/water (log Not determined. value) Steam pressure: Not determined. Density and/or relative density Density Not determined · Relative density Not determined. · Vapour density Not determined. · 9.2 Other information No further relevant information available. · Appearance: Form: Pastv · Important information on protection of health and environment, and on safety. · Self-inflammability: Product is not selfigniting. Explosive properties: Product is not explosive. Change in condition · Evaporation rate Not determined. (Contd. on page 6)



Page 6/10

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

Printing date 16.11.2022

Version number 3

Revision: 16.11.2022

Trade name: Charisma Smart

		(Contd. of pa
· Information with regard to physical hazard		
classes		
· Explosives	Void	
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** No dangerous reactions known

· 10.4 Conditions to avoid No further relevant information available.

- 10.5 Incompatible materials: No further relevant information available. 10.6 Hazardous decomposition products: None
- Additional information:

If stored longer than recommended and/or above recommended temperature,

product may polymerize generating heat.

11.1 Info · Acute	rmation of the toxicity is tox	on hazard classes as defined in Regulation (EC) No 1272/2008 Based on available data, the classification criteria are not met.
·LD	/LC50 va	lues that are relevant for classification:
1565-94-	2 (1-met bismetl	hylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] nacrylate
Oral	LD50	>5,000 mg/kg (rat)
109-16-0	triethyle	n glycol dimethacrylate
Oral	LD50	8,300 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (mouse)
2530-85-	0 3-trimet	hoxysilylpropyl methacrylate
	LD50	>2,000 mg/kg (rat)
Oral		



Page 7/10

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

Printing date 16.11.2022

Version number 3

Revision: 16.11.2022

Trade name: Charisma Smart

00044 44	0.0:1	(Contd. of page
		dichlorodimethyl-, reaction products with silica
Oral	LD50	>5,000 mg/kg (rat)
Inhalative		0.477 mg/L (rat)
		hous silica
Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>5,000 mg/kg (rabbit)
131-57-7 (Oxybenzo	ne
Oral	LD50	>12,800 mg/kg (rat) (OECD 401)
Dermal	LD50	>16,000 mg/kg (rabbit) (OECD 402)
79-41-4 m	ethacrylic	acid acid
Oral	LD50	1,320 mg/kg (rat) (OECD 401)
Dermal	LD50	500-1,000 mg/kg (rabbit)
Inhalative	LC50/4 h	7.1 mg/l (rat) (OECD 403)
128-37-0	2,6-di-tert-	butyl-p-cresol
Oral	LD50	>6,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>2,000 mg/kg (rat) (OECD 402)
 Seriou Respir May ca 	s eye dan atory or s ause an alle	rritation Based on available data, the classification criteria are not met. nage/irritation Based on available data, the classification criteria are not met. kin sensitisation ergic skin reaction. genicity Based on available data, the classification criteria are not met.
Carcin Repro STOT-	ogenicity ductive to single exp	Based on available data, the classification criteria are not met. xicity Based on available data, the classification criteria are not met. cosure Based on available data, the classification criteria are not met.
· Aspira	tion haza	exposure Based on available data, the classification criteria are not met. rd Based on available data, the classification criteria are not met. In other hazards
· Endoc	rine disru	pting properties
		nts is listed.

· 12.1 Toxicity	/
· Aquatic t	oxicity:
65997-17-3 (Slaspulver
EC50/72h	>1,000 mg/l (daphnia)
LC50/96h	>1,000 mg/l (fish)
ErC50 / 72 h	>1,000 mg/l (algae)
NOEC / 72h	1,000 mg/l (algae)
	1,000 mg/l (daphnia)
	-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl) smethacrylate
LC50/96h	>100 mg/l (fish) (OECD 203)
109-16-0 trie	thylen glycol dimethacrylate
EC50/21d	51.9 mg/L (daphnia) (OECD 211)
LC50/96h	16.4 mg/l (fish) (OECD 203)
	(Contd. on page



Page 8/10

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

Printing date 16.11.2022

Version number 3

Revision: 16.11.2022

Trade name: Charisma Smart

NOEC / 21d	(Contd. of page 7) (OECD 211)
	>100 mg/l (algae) (OECD 201)
	18.6 mg/l (algae) (OECD 201)
	72.8 mg/l (algae) (OECD 201)
	trimethoxysilylpropyl methacrylate
	>100 mg/l (daphnia) (EU C2.)
LC50/96h	>100 mg/l (fish) (EU C.1)
68611-44-9 S	Silane, dichlorodimethyl-, reaction products with silica
LC50/96h	>10,000 mg/l (fish) (OECD 203)
ErC50 / 72 h	>10,000 mg/l (algae) (OECD 201)
EC50 / 24h	
112945-52-5	Amorphous silica
LC50/96h	>10,000 mg/l (fish) (OECD 203)
EC50 / 24h	>1,000 mg/l (daphnia)
131-57-7 Ox	• • • •
	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)
	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)
79-41-4 metl	nacrylic acid
EC50/48h	>130 mg/l (daphnia) (EPA OTS 797.1300)
LC50/96h	85 mg/l (fish) (EPA OTS 797.1400)
NOEC / 21d	53 mg/l (daphnia)
ErC50 / 72 h	45 mg/l (algae) (OECD 201)
NOEC / 72h	8.2 mg/l (algae) (OECD 201)
NOEC / 96h	12 mg/l (fish) (EPA OTS 797.1400)
NOEC / 48h	130 mg/l (daphnia) (EPA OTS 797.1300)
NOEC/ 35d	
LC50/ 35d	42 mg/L (fish) (OECD 210)
128-37-0 2,6-	di-tert-butyl-p-cresol
EC50/72h	>0.4 mg/l (algae) (EU C.3)
EC50/21d	0.096 mg/L (daphnia) (OECD 211)
EC50/48h	0.48 mg/l (daphnia) (OECD 202)
LC50/96h	>0.57 mg/l (fish) (OECD 203)
NOEC / 21d	0.069 mg/l (daphnia) (OECD 211)
NOEC / 48h	0.15 mg/l (daphnia) (OECD 202)
NOEC/ 32d	0.053 mg/L (fish) (OECD 210)
· 12.2 Persiste	ence and degradability
1565-94-2 (1 bi	-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] smethacrylate
Biodegradatio	on 21 % /28d (not defined) (OECD 301F; ISO 9408/ EEC 92/69/V, C.4-D)
	(Contd. on page 9)
	GB



Page 9/10

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

Printing date 16.11.2022

Version number 3

Revision: 16.11.2022

Trade name: Charisma Smart

(Contd. of page 8)

109-16-0 triethylen glycol dimethacrylate Biodegradation 85 % /28d (not defined) (OECD 301B; ISO/ 9439/ EEC 92/69/V, C.4-C)

2530-85-0 3-trimethoxysilylpropyl methacrylate

Biodegradation 69 % /28d (not defined) (OECD 301F; ISO 9408/ EEC 92/69/V, C.4-D)

131-57-7 Oxybenzone

Biodegradation 60-70 % /28d (not defined)

79-41-4 methacrylic acid

Biodegradation 86 % /28d (not defined) (OECD 301D)

· 12.3 Bioaccumulative potential

131-57-7 Oxybenzone

Bloconcentration 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 No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods Recommendation

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

Disposal must be made according to official regulations.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14.1 UN number or ID number ADR, ADN, IMDG, IATA	Void	
14.2 UN proper shipping name ADR, ADN, 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 accordi IMO instruments	ng to Not applicable.	

GB



Page 10/10

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

Printing date 16.11.2022

Version number 3

Revision: 16.11.2022

(Contd. of page 9)

GB

Trade name: Charisma Smart

· 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

No further relevant information available.

· 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 H302 Harmful if swallowed. H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms: SADT: Self Accelerating Decomposition 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 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 (UK REACH) PNEC: Predicted No-Effect Concentration (UK REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Acute Tox. 4: Acute toxicity – Category 4 Acute Tox. 3: Acute toxicity – Category 3 Skin Corr. 1A: Skin corrosion/irritation – Category 1A Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Skin Sens. 1: Skin sensitisation – Category 1 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 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

* Data compared to the previous version altered.