

according to Regulation (EC) No 1907/2006

freeprint® model T UV

Revision date: 25.09.2020

Product code: 931

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

1.1. Product identifier

freeprint® model T UV

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

Use of the substance/mixture

Ligth-curing resin for the generative fabrication of dental models.

1.3. Details of the supplier of the safety data sheet

Manufacturer		
Company name:	DETAX GmbH & Co. KG	
Street:	Carl-Zeiss-Strasse	
Place:	D-76275 Ettlingen	
Telephone:	+49 7243/510-0	Telefax: +49 7243/510-100
e-mail:	post@detax.de	
Internet:	www.detax.de	
Responsible Department:	Emergency number:	
	+49 7243/510-0	
	This number is only obtainable during office h	nours (Monday - Thursday 8.00 a.m.
	- 5.00 p.m., Friday 8.00 a.m 4.00 p.m.)	
Importer / Distributer		
Company name:	Ivoclar Vivadent Ltd	
Place:	PO Box 303011, North Harbour, Auckland, 0	751
Telephone:	+64 9 914 9999	Telefax: +64 9 9149990
1.4. Emergency telephone	0800 764 766 Poison Hotline (24 hours / 7 da	ays)
<u>number:</u>	NZ: National Poison Centre (New Zealand)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories: Skin corrosion/irritation: Skin Irrit. 2 Serious eye damage/eye irritation: Eye Irrit. 2 Respiratory or skin sensitisation: Skin Sens. 1 Reproductive toxicity: Repr. 2 Specific target organ toxicity - single exposure: STOT SE 3 Hazardous to the aquatic environment: Aquatic Chronic 3 Hazard Statements: Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. May cause respiratory irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008



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Hazard components for labelling

isopropylidenediphenol peg-2 dimethacrylate

7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate Urethane Dimethacrylate Hydroxy propyl methacrylate

tetrahydrofurfuryl methacrylate THFMA purified grade

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

2-hydroxyethyl methacrylate

phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

Signal word:

Pictograms:



Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/ container in accordance with local and national regulations.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of acrylic/ methacrylic resins with auxilliary matters.



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Hazardous components

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	GHS Classification			
41637-38-1	isopropylidenediphenol peg	g-2 dimethacrylate		30 - < 40 %
	Skin Irrit. 2, Eye Irrit. 2, Ski	n Sens. 1A, STOT SE 3, H315 H	319 H317 H335	
72869-86-4	7,7,9(or 7,9,9)-trimethyl-4,1	3-dioxo-3,14-dioxa-5,12-diazahe	xadecane-1,16-diyl bismethacrylate	20 - < 25 %
	276-957-5		01-2120751202-68	
	Skin Sens. 1B, Aquatic Chi	onic 2; H317 H411		
72869-86-4	Urethane Dimethacrylate			10 - < 20 %
	Skin Irrit. 2, Eye Irrit. 2, Ski	n Sens. 1, STOT SE 3; H315 H31	9 H317 H335	
72829-09-5	1,12-Dodecanediol Dimeth	acrylate		1 - < 10 %
	Skin Irrit. 2, Eye Irrit. 2; H3			
27813-02-1	Hydroxy propyl methacryla	1 - < 5 %		
	248-666-3		01-2119490226-37	
	Eye Irrit. 2, Skin Sens. 1; H	319 H317		
2455-24-5	tetrahydrofurfuryl methacry	1 - < 5 %		
	Repr. 2, Skin Irrit. 2, Eye Ir	it. 2, Skin Sens. 1, STOT SE 3; H	1361 H315 H319 H317 H335	
75980-60-8	diphenyl(2,4,6-trimethylber	1 - < 5 %		
	278-355-8	015-203-00-X		
	Repr. 2, Skin Sens. 1B, Aq			
868-77-9	2-hydroxyethyl methacrylat	< 1 %		
	212-782-2	607-124-00-X		
	Skin Irrit. 2, Eye Irrit. 2, Ski			
162881-26-7	phenyl bis(2,4,6-trimethylbe	< 1 %		
	423-340-5	015-189-00-5	01-2119489401-38	
	Skin Sens. 1, Aquatic Chro			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time , then consult an ophthalmologist immediately.



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After ingestion

Rinse mouth immediately and drink plenty of water. Seek immediately medical advice. Do not induce vomiting. In case of spontaneous vomiting take care of an unhindered flow out of the vomit (danger of suffocation).

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

Hints on joint storage

Keep away from spontaneous flammable or combustible substances.



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Further information on storage conditions

Keep only in the original container in a dry and well-ventilated place, away from foodstuffs. Keep away from all kind of ligth. An inert gas blanket should not be applied, because the stability of the product depends on the presence of oxygen (air).

7.3. Specific enduse(s)

Ligth-curing resin for the generative fabrication of dental models. For use by trained specialist staff.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Suitable are gloves of the following material: Butyl caoutchouc (butyl rubber)

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Colour: Odour:	liquid: blue faintly like esters	
	,	Test method
pH-Value:		not determined
Changes in the physical state		
Melting point:		not determined
Initial boiling point and boiling range:		not determined
Flash point:		>100 °C DIN 51755
Flammability		
Solid:		not applicable
Gas:		not applicable
Lower explosion limits:		not determined



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Upper explosion limits:	not determined			
Auto-ignition temperature Solid: Gas:	not applicable not applicable >=190 °C			
Decomposition temperature: Oxidizing properties Not oxidizing.	>-190 C			
Vapour pressure: (at 20 °C)	<1 hPa			
Density (at 20 °C):	1,09 g/cm³ DIN 51757			
Water solubility:	insoluble			
Solubility in other solvents not determined				
Partition coefficient:	not determined			
Vapour density:	not determined			
Evaporation rate:	not determined			
9.2. Other information				
Solid content:	not determined			
SECTION 10: Stability and reactivity				

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

<u>10.2. Chemical stability</u>

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Reacts with : strong oxidising agents, strong alcaline or acidic materials.

10.4. Conditions to avoid

Ultra-violet ligth and dayligth initiate polymerisation of the product. Therefore keep only in tigthly closed containers away from any sources of ligth at 15°C - 28°C / 59°F - 82 °F.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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



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CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
72869-86-4	7,7,9(or 7,9,9)-trimethyl-4	4,13-dioxo-3,14-	-dioxa-5,12	2-diazahexadecane-1,16-d	iyl bismethacrylate	
	oral	LD50 > mg/kg	•5000	Rat	OECD 401	
	dermal	LD50 > mg/kg	2000	Rat	OECD 402	
27813-02-1	Hydroxy propyl methacry	late				
	oral	LD50 > mg/kg	2000	Rat	OECD 401	
	dermal	LD50 > mg/kg	•5000	Rabbit		
75980-60-8	diphenyl(2,4,6-trimethylb	enzoyl)phosphir	ne oxide			
	oral	LD50 > mg/kg	•5000	Rat		
	dermal	LD50 > mg/kg	2000	Rat		
868-77-9	2-hydroxyethyl methacry	late				
	oral	LD50 5 mg/kg	6050	Rat		
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide					
	oral	LD50 > mg/kg	2000	Rat	OECD 401	
	dermal	LD50 > mg/kg	2000	Rat	OECD 402	

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

May cause an allergic skin reaction. (isopropylidenediphenol peg-2 dimethacrylate; 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate; Urethane Dimethacrylate; Hydroxy propyl methacrylate; tetrahydrofurfuryl methacrylate THFMA purified grade; diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide; 2-hydroxyethyl methacrylate; phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide)

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging fertility or the unborn child. (tetrahydrofurfuryl methacrylate THFMA purified grade; diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation. (isopropylidenediphenol peg-2 dimethacrylate)

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.

Additional information on tests

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

SECTION 12: Ecological information



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<u>12.1. Toxicity</u>

The product is not: Ecotoxic.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method
72869-86-4	7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate						
	Acute crustacea toxicity	EC50 mg/l	>1,2	48 h	Daphnia magna (Big water flea)	OECD 202	
27813-02-1	Hydroxy propyl methacryl	ate					
	Acute fish toxicity	LC50	493 mg/l	96 h	Leuciscus idus (golden orfe)		
	Acute algae toxicity	ErC50 mg/l	>97,2	72 h	Pseudokirchneriella subcapitata	OECD 201	
	Acute crustacea toxicity	EC50	380 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202	
2455-24-5	tetrahydrofurfuryl methacr	ylate THFM	A purified gra	de			
	Acute fish toxicity	LC50 mg/l	34,7	96 h		GESTIS	
75980-60-8	diphenyl(2,4,6-trimethylbe	nzoyl)phosp	hine oxide				
	Acute algae toxicity	ErC50 mg/l	>2,01	72 h	Scenedesmus subspicatus		
	Acute crustacea toxicity	EC50 mg/l	3,53	48 h	Daphnia magna (Big water flea)		
	Acute bacteria toxicity	(>1000 m	ng/l)	3 h	Activated sludge		
868-77-9	2-hydroxyethyl methacryla	ate			-		
	Acute fish toxicity	LC50	227 mg/l	96 h	Pimephales promelas		
162881-26-7	phenyl bis(2,4,6-trimethyll	penzoyl)-pho	osphine oxide	;	-		
	Acute fish toxicity	LC50 mg/l	>0,09	96 h	Brachydanio rerio (zebra-fish)	OECD 203	
	Acute algae toxicity	ErC50 mg/l	>0,26	72 h	Desmodesmus subspicatus.	OECD 201	
	Acute crustacea toxicity	EC50 mg/l	>1,175	48 h	Daphnia magna (Big water flea)	OECD 202	
	Crustacea toxicity	NOEC mg/l	>0,008	21 c	Daphnia magna (Big water flea)	OECD 211	
	Acute bacteria toxicity	(>100 mg	g/l)	3 h	OECD 209		

12.2. Persistence and degradability

The product has not been tested.



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CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
72829-09-5	1,12-Dodecanediol Dimethacrylate				
	OECD 301C/ ISO 9408/ EEC 92/69/V, C.4-F	90 %	28		
27813-02-1	Hydroxy propyl methacrylate				
	OECD	94%	28		
	Readily biodegradable (according to OECD criteria).				
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				
		0-10%	28		
	Not readily biodegradable (according to OECD criteria)				
868-77-9	2-hydroxyethyl methacrylate				
	84	%	28		
	Leicht biologisch abbaubar				
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide				
	CO2 formation (% of the theoretical value).	1%	29		
	Not readily biodegradable (according to OECD criteria)				

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
27813-02-1	Hydroxy propyl methacrylate	0,97
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	3,1
868-77-9	2-hydroxyethyl methacrylate	0,47
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	5,8

BCF

CAS No	Chemical name	BCF	Species	Source
72829-09-5	1,12-Dodecanediol Dimethacrylate	1230		
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphi ne oxide	47-55	Cyprinus carpio (Common Carp)	
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	<5	Cyprinus carpio (Common Carp)	OECD 305

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

Not identivied as PBT/ vPvB substances

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.



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Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: 14.2. UN proper shipping name: 14.3. Transport hazard class(es): 14.4. Packing group: Inland waterways transport (ADN) 14.1. UN number: 14.2. UN proper shipping name: 14.3. Transport hazard class(es): 14.4. Packing group: Marine transport (IMDG) 14.1. UN number: 14.2. UN proper shipping name: 14.3. Transport hazard class(es): 14.4. Packing group: Air transport (ICAO-TI/IATA-DGR) 14.1. UN number: 14.2. UN proper shipping name: 14.3. Transport hazard class(es): 14.4. Packing group: 14.6. Special precautions for user

No dangerous good in sense of this transport regulation. No dangerous good in sense of this transport regulation. No dangerous good in sense of this transport regulation. No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation. No dangerous good in sense of this transport regulation. No dangerous good in sense of this transport regulation. No dangerous good in sense of this transport regulation.

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No dangerous good in sense of this transport regulation.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Classified as Hazardous according to the criteria of the National Occupational Health and Safety

Commission (NOHSC) approved criteria for the classifying hazardous substances [NOHSC: 1008]

3rd edition.

Standard for the Uniform Scheduling of Medicines and Poisons.

Carcinogen classification under WHS Regulation 2011, Schedule 10.

Notification status in accordance with section 3 and current national legislation.

HSNO Approval: HSR007296, HSR003915, HSR003005

EPA NZ Classes of hazardous properties:

Classification 6.3A Irritating to the skin

Classification 6.4A Irritating to the eye

Classification 6.5B Contact sensitisers

Classification 6.1E (All) Acutely toxic

Classification 6.3B Mildly irritating to the skin

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

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)IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonized 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

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method
Repr. 2; H361	Calculation method
STOT SE 3; H335	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

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Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)