



according to UK REACH Regulation

### **VITA VIONIC® BASE RESIN IMPACT**

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

#### 1.1. Product identifier

VITA VIONIC® BASE RESIN IMPACT

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

#### Use of the substance/mixture

Lichthärtender Kunststoff zur generativen Herstellung von herausnehmbaren dentalen Prothesenbasen.

### 1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name:

Street:

Carl-Zeiss-Strasse 4

Place:

D-76275 Ettlingen

+497243/510-0

E-mail:

post@detax.com

Internet:

Www.detax.com

Supplier

Company name: VITA Zahnfabrik H.Rauter GmbH & Co.KG

Street: Spitalgasse 3

Place: D-79713 Bad Säckingen

Telephone: +49(0)7761-562-0 Telefax: +49(0)7761-562-299

E-mail: info@vita-zahnfabrik.com

Contact person: regulatory affairs

E-mail: info@vita-zahnfabrik.com
Internet: www.vita-zahnfabrik.com

Responsible Department: Regulatory Affairs

1.4. Emergency telephone +1-800-424-9300 (CHEMTREC)

number:

### **Further Information**

Medizinprodukt

### **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

### **GB CLP Regulation**

Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

### **GB CLP Regulation**

# Hazard components for labelling

7,7,9(or 7,9,9)

-Trimethyl-4, 13-dioxo-3, 14-dioxa-5, 12-diazah exade can-1, 16-diylbis methacrylat 2-Hydroxyethyl methacrylat and the control of the contr

Isobornylmethacrylat

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

Signal word: Warning





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## Pictograms:





#### **Hazard statements**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

### **Precautionary statements**

P391 Collect spillage.

P337+P313 If eye irritation persists: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P273 Avoid release to the environment.

P272 Contaminated work clothing should not be allowed out of the workplace.

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

P501 Dispose of contents/container to an appropriate recycling or disposal facility.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

# **SECTION 3: Composition/information on ingredients**

### 3.2. Mixtures

## **Chemical characterization**

Mischung aus Acryl-/Methacrylharzen mit Hilfsstoffen



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### Relevant ingredients

CAS No	Chemical name					
	EC No	Index No	REACH No			
	Classification (GB CLP Regulation)					
41637-38-1	Ethoxyliertes Bisphenol-A-Dimetha	crylat		40 - < 60 %		
	Aquatic Chronic 4; H413					
72869-86-4	7,7,9(or 7,9,9) -Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecan-1,16-diylbismethacrylat2-Hydroxyethylm ethacrylat					
	Skin Sens. 1B, Aquatic Chronic 2; I	H317 H411				
7534-94-3	Isobornylmethacrylat		5 - < 20%			
	231-403-1					
	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3	5 H412				
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-p		0,1 < 5 %			
	423-340-5	015-189-00-5				
	Skin Sens. 1A, Aquatic Chronic 4; H317 H413					
68909-20-6	silanamine, 1,1,1-trimethyl-N-(trime	lica	0,1 < 5 %			
	272-697-1	014-052-00-7				
	STOT RE 2; H373 EUH066					
84434-11-7	Ethyl phenyl(2,4,6-trimethylbenzoyl	0,1 < 5 %				
	282-810-6					
	Skin Sens. 1, Aquatic Chronic 2; H317 H411					

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

### Specific Conc. Limits. M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc.	Limits, M-factors and ATE	
41637-38-1		Ethoxyliertes Bisphenol-A-Dimethacrylat	40 - < 60 %
	dermal: LD50	= 2000 mg/kg; oral: LD50 = 2000 mg/kg	
72869-86-4		7,7,9(or 7,9,9) -Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecan-1,16-diylbismethacrylat2-Hydroxyethylmethacrylat	20- < 40%
	dermal: LD50	= > 2000 mg/kg; oral: LD50 = > 5000 mg/kg	
7534-94-3	231-403-1	Isobornylmethacrylat	5 - < 20%
	dermal: LD50	= > 3000 mg/kg; oral: LD50 = > 2000 mg/kg	
162881-26-7	423-340-5	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	0,1 < 5 %
	dermal: LD50	= > 2000 mg/kg; oral: LD50 = > 2000 mg/kg	
84434-11-7	282-810-6	Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinat	0,1 < 5 %
	dermal: LD50	= > 2000 mg/kg; oral: LD50 = > 5000 mg/kg	

# **SECTION 4: First aid measures**

# 4.1. Description of first aid measures

### After inhalation

Remove the affected person to fresh air and immobilize in a position that facilitates breathing. Seek medical attention if symptoms occur.

## After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Rinse contaminated skin with plenty of





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water. Remove contaminated clothing and shoes. Consult a doctor if symptoms occur. Seek medical advice immediately.

#### After contact with eyes

Immediately flush eyes with plenty of water and occasionally lift upper and lower eyelids. Check for contact lenses and remove if present. Seek medical attention if irritation occurs.

#### After ingestion

Rinse the mouth with water. If the substance has been swallowed and the affected person is conscious, give small amounts of water to drink. Do not induce vomiting unless specifically instructed to do so by medical personnel. Seek medical attention if symptoms occur.

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

No additional information available.

## **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

### Suitable extinguishing media

Match fire extinguishing measures to the surrounding area.

#### 5.2. Special hazards arising from the substance or mixture

The product is not self-igniting. Vapours may form explosive mixtures with air.

#### 5.3. Advice for firefighters

Wear protective clothing. Use self-contained breathing apparatus. Wear complete protective equipment.

#### Additional information

Use water spray to cool containers. Fire residues and contaminated extinguishing water must be disposed of in accordance with local regulations. Do not allow to enter drains/surface waters/groundwater.

### **SECTION 6: Accidental release measures**

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

#### General advice

Ensure good ventilation/exhaustion at the workplace. Avoid contact with eyes and skin. Wear personal protective equipment.

## 6.2. Environmental precautions

Do not allow to enter drains/surface waters/groundwater.

## 6.3. Methods and material for containment and cleaning up

#### Other information

For safe handling information: see section 7. See Section 8 for information regarding appropriate personal protective equipment. See section 13 for further details on waste treatment.

## **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

#### Advice on safe handling

No further information, see section 7.

#### Advice on protection against fire and explosion

No further information, see section 7.

## Advice on general occupational hygiene

Hygienic measures: Wash hands, arms and face thoroughly after handling chemical products and at the end of the day wash hands, forearms, and face thoroughly after handling chemical products and at the end of the workday, as well as before eating, smoking, and visiting the restroom. Select appropriate methods for removing contaminated clothing. Wash contaminated clothing before reuse. Ensure that eyewash stations and safety





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showers are available near the work area.

### 7.2. Conditions for safe storage, including any incompatibilities

### **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

#### 8.2. Exposure controls

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Eye protection Wear eye/face protection.

#### Hand protection

Wear suitable gloves. When handling chemical products, chemical-resistant, impermeable gloves conforming to a recognized standard must always be worn if a risk assessment so requires. > 8 hours (penetration time): Nitrile rubber

### Skin protection

Wear suitable protective clothing.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

Physical state:

Colour:

Boiling point or initial boiling point and 258 °C

boiling range:

Flash point: >100 °C

Auto-ignition temperature: 385 °C Water solubility: The mixture is not soluble (in water).

Vapour pressure:

0.075 hPa

(at 20 °C)

### 9.2. Other information

### Information with regard to physical hazard classes

Explosive properties

Not classified as explosive.

Oxidizing properties

Not oxidising.

# **SECTION 10: Stability and reactivity**

## 10.1. Reactivity

Under normal storage conditions and use, no hazardous reactions will occur.

### 10.2. Chemical stability

Stable under normal conditions.

# **SECTION 11: Toxicological information**

## 11.1. Information on hazard classes as defined in GB CLP Regulation

### **Acute toxicity**

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

#### **ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l



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CAS No	Chemical name								
	Exposure route	Dose		Species	Source	Method			
41637-38-1	Ethoxyliertes Bispheno	Ethoxyliertes Bisphenol-A-Dimethacrylat							
	oral	LD50 mg/kg	2000	Rat	OECD 423				
	dermal	LD50 mg/kg	2000	Rat	OECD 402				
72869-86-4	7,7,9(or 7,9,9) -Trimethyl-4,13-dioxo-3	3,14-dioxa-5,	12-diazahexa	decan-1,16-diylbis	smethacrylat2-Hydroxyethylm	ethacrylat			
	oral	LD50 mg/kg	> 5000	Ratte	OECD 401				
	dermal	LD50 mg/kg	> 2000	Ratte	OECD 402				
7534-94-3	Isobornylmethacrylat								
	oral	LD50 mg/kg	> 2000	Rat	MSDS				
	dermal	LD50 mg/kg	> 3000	Rabbit	MSDS				
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				
84434-11-7	Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinat								
	oral	LD50 mg/kg	> 5000	Rat		OECD 401			
	dermal	LD50 mg/kg	> 2000	Rat					

### Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

## Sensitising effects

May cause an allergic skin reaction. (7,7,9(or 7,9,9)

-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecan-1,16-diylbismethacrylat2-Hydroxyethylmethacrylat; phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide; Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinat)

### Carcinogenic/mutagenic/toxic effects 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

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.

## **SECTION 12: Ecological information**



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## 12.1. Toxicity

Toxic to aquatic life with long lasting effects.

CAS No	Chemical name							
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method	
41637-38-1	Ethoxyliertes Bisphenol-A-Dimethacrylat							
	Acute fish toxicity	LC50 mg/l	>100	96 h	Oncorhynchus mykiss	OECD 203		
	Acute algae toxicity	ErC50 mg/l	>100	72 h	Pseudokirchneriellas ubcapitata	OECD 201		
	Acute crustacea toxicity	EC50 mg/l	>100	48 h	Daphnia magna	OECD 202		
72869-86-4	7,7,9(or 7,9,9) -Trimethyl-4,13-dioxo-3,1	4-dioxa-5,12	?-diazahexad	lecan-1,1	6-diylbismethacrylat2-Hy	rdroxyethylmethacryla	ıt	
	Acute fish toxicity	LC50 mg/l	>100	96 h			OECD 203	
	Acute algae toxicity	ErC50 mg/l	>100	72 h			OECD 201	
	Acute crustacea toxicity	EC50 mg/l	>100	48 h	Daphina magna	OECD 202		
7534-94-3	Isobornylmethacrylat							
	Acute fish toxicity	LC50 mg/l	1,79	96 h		MSDS		
	Acute crustacea toxicity	EC50 mg/l	> 2,57	48 h	Daphnia magna	MSDS		
162881-26- 7	phenyl bis(2,4,6-trimethyl	benzoyl)-pho	osphine oxid	е				
	Acute fish toxicity	LC50 mg/l	> 0,09	96 h	Danio rerio(Zebrabärbling)	OECD 203		
	Acute algae toxicity	ErC50 mg/l	> 0,26	72 h	Desmodesmussubsp icatus	OECD 201		
	Acute crustacea toxicity	EC50 mg/l	> 1,175	48 h	Daphnia magna	OECD 202		
84434-11-7	Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinat							
	Acute fish toxicity	LC50 mg/l	1,89	96 h	Danio rerio			

# 12.2. Persistence and degradability

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
41637-38-1	Ethoxyliertes Bisphenol-A-Dimethacrylat			
	OECD 301D/ EEC 92/69/V, C.4-E	24%	28	
	The product is: Not readily biodegradable (according to OECD criteria).			
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide			
	CO2	1%	29	
	The product is: Not readily biodegradable (according to OECD criteria).			

# 12.3. Bioaccumulative potential



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#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
	7,7,9(or 7,9,9) -Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecan-1,16-diylbismethacrylat2-Hydroxyethyl methacrylat	3,39
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	5,8

#### **BCF**

CAS No	Chemical name	BCF	Species	Source
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)	<5	Cyprinus carpio	OECD 305
	-phosphine oxide			

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

## **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

### **Disposal recommendations**

Do not allow to enter drains/surface waters/groundwater. Appropriate disposal / Package

## **SECTION 14: Transport information**

## Land transport (ADR/RID)

14.1. UN number or ID number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es):
9
14.4. Packing group:
Hazard label:
9



Classification code: M6

Special Provisions: 274 335 375 601

Limited quantity: 5 L
Excepted quantity: E1
Transport category: 3
Hazard No: 90
Tunnel restriction code: -

#### Other applicable information (land transport)

 $Contains: 7,7,9 (oder\ 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahex a decan-1,16-diylbis methacrylation of the contains of the conta$ 

# Inland waterways transport (ADN)

14.1. UN number or ID number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9



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Classification code: M6

Special Provisions: 274 335 375 601

Limited quantity: 5 L
Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9



Special Provisions: 274 335 969

Limited quantity: 5 L

Excepted quantity: E1

EmS: F-A, S-F

Other applicable information (marine transport)

Contains: 7,7,9(oder 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecan-1,16-diylbismethacrylat

Flash point: > 100°C

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9



Special Provisions: A97 A158 A197 A215

Limited quantity Passenger: 30 kg G
Passenger LQ: Y964
Excepted quantity: E1

IATA-packing instructions - Passenger: 964
IATA-max. quantity - Passenger: 450 L
IATA-packing instructions - Cargo: 964
IATA-max. quantity - Cargo: 450 L

Other applicable information (air transport)

Contains: 7,7,9(oder 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecan-1,16-diylbismethacrylat

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes



Other applicable information

Hazchem code: •3Z





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### **SECTION 15: Regulatory information**

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

#### **EU** regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to Directive

2012/18/EU (SEVESO III):

E2 Hazardous to the Aquatic Environment

**National regulatory information** 

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC).

Water hazard class (D): 3 - highly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

### **SECTION 16: Other information**

### Abbreviations and acronyms

Skin Irrit: Skin irritation
Eye Irrit: Eye irritation
Skin Sens: Skin sensitisation

STOT SE: Specific target organ toxicity - single exposure STOT RE: Specific target organ toxicity - repeated exposure

Aquatic Chronic: Chronic aquatic hazard

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (European

Agreement concerning the International Carriage of Dangerous Goods by Road)

ATE: Acute Toxicity Estimates

ADN: European agreement concerning the international carriage of dangerous goods by inland waterways

BCF: Bioconcentration factor

CLP: Classification labelling packaging regulation; Regulation (EC) No 1272/2008

DMEL: Derived minimal effect level DNEL: Derived-No effect level

DPD: Dangerous preparations directive 1999/45/EC

GHS: Globally harmonized system of classification and labelling of chemicals

IARC: International agency for research on cancer

EC50: mean effective concentration, 50% IATA: International air transport association

IMDG: International Maritime Code for Dangerous Goods

LC50: lethal concentration, 50%

LD50: lethal dose, 50%

LOAEL: Lowest observed adverse effect level NOAEL: No-Observed adverse effect level NOEC: No-Observed effect concentration

OECD: Organisation for economic Co-operation and development

PBT: persistent, bioaccumulative and toxic PNEC: Predicted No-Effect concentration

REACH: Registration, evaluation, authorisation and restriction of chemicals regulation (EC) No 1907/2006

RID: Regulations concerning the international carriage of dangerous goods by rail

SDS: Safety data sheet STP: Sewage treatment plant TLM: Median tolerance limit

vPvB: very persistent and very bioaccumulative



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Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure			
Skin Irrit. 2; H315				
Eye Irrit. 2; H319				
Skin Sens. 1; H317	Calculation method			
Aquatic Chronic 2; H411	Calculation method			

## Relevant H and EUH statements (number and full text)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
EUH066	Repeated exposure may cause skin dryness or cracking.

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