according to UK REACH Regulation

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

1.1. Product identifier

FabConstruct High Resolution SLA-UV Resin

UFI: 49S2-U0FE-D00E-MEAM

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

Use of the substance/mixture

3D Printing resin

Uses advised against

Not for intraoral area.

1.3. Details of the supplier of the safety data sheet

Company name: Fabistron GmbH
Street: Jütrichauer Straße 3
Place: D-39261 Zerbst / Anhalt

Telephone: +49 3923 610070 Telefax: +49 3923 610080

e-mail: info@fabistron.com

Contact person: Holger Prüfer Telephone: +49 3923 610070

e-mail: fabconstruct@fabistron.com

Internet: www.fabistron.de

1.4. Emergency telephone Poison Control Center Freiburg (Germany) - 24 hour emergency service - Tel.:

number: +49 (0) 761 - 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2 Respiratory or skin sensitisation: Skin Sens. 1

Specific target organ toxicity - single exposure: STOT SE 3 Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
May cause respiratory irritation.

Toxic to aquatic life with long lasting effects.

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-diazahexadecane-1,16-diyl bismethacrylate

3-methyl-1,5-pentanediyl diacrylate

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

Signal word: Warning

Pictograms:





according to UK REACH Regulation

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Hazard statements

11045	O 1: : : :: ::
H315	Causes skin irritation.

H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

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/hearing

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.
P362+P364 Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			
	EC No	Index No	REACH No	
	GHS Classification	•		
72869-86-4	7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-	3,14-dioxa-5,12-diazahexadecane-1	,16-diyl bismethacrylate	75 - < 80 %
	276-957-5		01-2120751202-68	
	Skin Sens. 1B, Aquatic Chronic 2; H317 H411			
64194-22-5	3-methyl-1,5-pentanediyl diacrylate			20 - < 25 %
	264-727-7		01-2120117435-63	
	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3, Aquatic Chronic 3; H332 H315 H319 H317 H335 H412			
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide			
	278-355-8	015-203-00-X		
	Repr. 2, Skin Sens. 1B, Aquatic Ch	ronic 2; H361f 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	
72869-86-4	276-957-5	7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate	75 - < 80 %
	dermal: LD50	= > 2000 mg/kg; oral: LD50 = > 5000 mg/kg	
64194-22-5	264-727-7	3-methyl-1,5-pentanediyl diacrylate	20 - < 25 %
		E = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = oral: LD50 = > 2000 mg/kg	
75980-60-8	278-355-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	1 - < 5 %
	dermal: LD50	= > 2000 mg/kg; oral: LD50 = > 5000 mg/kg	

SECTION 4: First aid measures

4.1. Description of first aid measures

according to UK REACH Regulation

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General information

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

After inhalation

Provide fresh air. If experiencing respiratory symptoms: Get medical advice/attention.

If breathing is irregular or stopped, administer artificial respiration.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

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. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Observe risk of aspiration if vomiting occurs. Do NOT induce vomiting. Rinse mouth immediately and drink 1 glass of of water. Get medical advice/attention if you feel unwell.

Never give anything by mouth to an unconscious person or a person with cramps.

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

Allergic reactions, Irritating to eyes and skin.

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. In case of fire may be liberated: Gases/vapours, toxic

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

General measures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Evacuate area.

For non-emergency personnel

Use personal protection equipment.

For emergency responders

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

For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

No information available.

according to UK REACH Regulation

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Other information

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

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

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

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, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

Hints on joint storage

No special measures are necessary.

Further information on storage conditions

Protect against: UV-radiation/sunlight

7.3. Specific end use(s)

3D Printing resin

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance				
DNEL type		Exposure route	Effect	Value	
72869-86-4	7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahe	exadecane-1,16-diyl bis	methacrylate		
DNEL, long-ter	rm	oral		0,3 mg/kg bw/day	
DNEL, long-ter	DNEL, long-term			0,7 mg/kg bw/day	
DNEL, long-ter	m	inhalation		0,6 mg/m³	
75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide					
Worker DNEL, long-term		inhalation	systemic	3,5 mg/m³	
Worker DNEL,	Worker DNEL, long-term		systemic	1 mg/kg bw/day	

according to UK REACH Regulation

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PNEC values

CAS No	Substance				
Environmental	Environmental compartment Value				
72869-86-4	7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacry	late			
Freshwater		0,01 mg/l			
Marine water		0,001 mg/l			
Freshwater se	diment	4,56 mg/kg			
Marine sediment		0,46 mg/kg			
Micro-organisms in sewage treatment plants (STP)		3,61 mg/l			
Soil		0,91 mg/kg			
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				
Freshwater		0,004 mg/l			
Freshwater (intermittent releases)		0,035 mg/l			
Freshwater sediment		0,029 mg/kg			
Marine sediment		0,029 mg/kg			
Soil 0,056		0,056 mg/kg			

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls





Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Use eye protection according to EN 166.

Hand protection

Wear suitable gloves tested to EN374.

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.

Skin protection

Use of protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Thermal hazards

not applicable

Environmental exposure controls

Do not allow to enter into surface water or drains.

according to UK REACH Regulation

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: various
Odour: like: Acrylate
Odour threshold: not determined

Changes in the physical state

Melting point/freezing point:

Boiling point or initial boiling point and

not determined

not determined

boiling range:

Flash point: not determined

Flammability

Solid/liquid: not applicable
Gas: not applicable

Explosive properties

The product is not: Explosive.

Lower explosion limits:

Upper explosion limits:

not determined

not determined

Auto-ignition temperature:

not determined

Self-ignition temperature

Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

pH-Value: not determined Viscosity / dynamic: not determined Viscosity / kinematic: not determined Water solubility: poorly soluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Vapour pressure:

Density:

not determined

not determined

not determined

not determined

not determined

9.2. Other information

Other safety characteristics

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

according to UK REACH Regulation

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10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

UV-radiation/sunlight

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

In case of fire may be liberated: Gases/vapours, toxic

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.

CAS No	No Chemical name					
	Exposure route	Dose		Species	Source	Method
72869-86-4	7,7,9(or 7,9,9)-trimethyl-4	,13-dioxo-3,	14-dioxa-5,1	2-diazahexadecane-1,16-	diyl bismethacrylate	
	oral	LD50 mg/kg	> 5000	Rat	Manufacturer	OECD 401
	dermal	LD50 mg/kg	> 2000	Rat	Manufacturer	OECD 402
64194-22-5	I-22-5 3-methyl-1,5-pentanediyl diacrylate					
	oral	LD50 mg/kg	> 2000	Rat	Manufacturer	OECD 423
	dermal	LD50 mg/kg	> 2000	Rat	Manufacturer	OECD 402
	inhalation vapour	ATE	11 mg/l			
	inhalation aerosol	ATE	1,5 mg/l			
75980-60-8	diphenyl(2,4,6-trimethylbe	enzoyl)phosp	hine oxide			
	oral	LD50 mg/kg	> 5000	Rat	Manufacturer	
	dermal	LD50 mg/kg	> 2000	Rat	Manufacturer	

Irritation and corrosivity

Causes skin 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-diazahexadecane-1,16-diyl bismethacrylate; 3-methyl-1,5-pentanediyl diacrylate; diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide)

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause respiratory irritation. (3-methyl-1,5-pentanediyl diacrylate)

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

according to UK REACH Regulation

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Endocrine disrupting properties

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

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-5,1	2-diazah	exadecane-1,16-diyl bism	ethacrylate	
	Acute crustacea toxicity	EC50 > 1,2 mg/l		Daphnia magna (Big water flea)	Manufacturer	OECD 202
64194-22-5	3-methyl-1,5-pentanediyl diacrylate					
	Acute crustacea toxicity	EC50 12,79 mg/l	48 h	Daphnia	Manufacturer	
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide					
	Acute algae toxicity	ErC50 > 2,01 mg/l	72 h	Scenedesmus subspicatus	Manufacturer	
	Acute crustacea toxicity	EC50 3,53 mg/l	48 h	Daphnia magna (Big water flea)	Manufacturer	
	Acute bacteria toxicity	(> 1000 mg/l)	3 h	Activated sludge	Manufacturer	

12.2. Persistence and degradability

The product has not been tested.

	duct has het seen testeu.			
CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide			
	Biodegradation, Water	0 - 10 %	28	Manufacturer
	Poorly biodegradable.			

12.3. Bioaccumulative potential

The product has not been tested.

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-diazahexadecane-1,16-diyl bismethacrylate	3,39
64194-22-5	3-methyl-1,5-pentanediyl diacrylate	2,76
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	3,1

BCF

CAS No	Chemical name	BCF	Species	Source
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphi ne oxide		Cyprinus carpio (Common Carp) fish	Manufacturer

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Endocrine disrupting properties

No information available.

according to UK REACH Regulation

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12.7. 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.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3082

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

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

-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl

bismethacrylate)

14.3. Transport hazard class(es): 9

14.4. Packing group:IIIHazard 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: -

Inland waterways transport (ADN)

14.1. UN number: UN 3082

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

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

-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl

bismethacrylate)

14.3. Transport hazard class(es): 9

14.4. Packing group:IIIHazard label:9



Classification code: M6

Special Provisions: 274 335 375 601

according to UK REACH Regulation

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Limited quantity: 5 L Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 3082

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

(ALIPHATIC URETHANE DIMETHACRYLATE)

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

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3082

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

(ALIPHATIC URETHANE DIMETHACRYLATE)

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



Special Provisions:

Limited quantity Passenger:

Passenger LQ:

Excepted quantity:

A97 A158 A197

30 kg G

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

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: 7,7,9(or 7,9,9)

-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl

bismethacrylate

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

according to UK REACH Regulation

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EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

2010/75/EU (VOC): <= 20 %

Information according to 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): 2 - obviously hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out: 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate

SECTION 16: Other information

Abbreviations and acronyms

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate LC50: Lethal concentration, 50% LD50: Lethal dose, 50%

LL50: Lethal loading, 50% EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic vPvB: very persistent, very bioaccumulative

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

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

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

IMDG: International Maritime Code for Dangerous Goods

EmS: Emergency Schedules MFAG: Medical First Aid Guide

IATA: International Air Transport Association ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern

For abbreviations and acronyms, see table at http://abbrev.esdscom.eu

according to UK REACH Regulation

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

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method
STOT SE 3; H335	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.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361f	Suspected of damaging fertility.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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.)