Safety Data Sheet

according to 29 CFR 1910.1200(g)

freeprint® IBT

1. Identification

Product identifier

freeprint® IBT

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Light-curing single-component material for the generative fabrication of soft earmolds

Details of the supplier of the safety data sheet

Company name:	DETAX GmbH	
Street:	Carl-Zeiss-Straße 4	
Place:	D-76275 Ettlingen	
Telephone:	+49 7243/510-0	Telefax: +49 7243/510-100
e-mail:	post@detax.com	
Internet:	www.detax.com	
Responsible Department:	This number is only obtainable during office hours (Monday - Thursday 8.00 a.m. - 5.00 p.m., Friday 8.00 a.m. - 4.00 p.m.)	

Emergency phone number: +1-800-424-9300 (CHEMTREC worldwide)

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

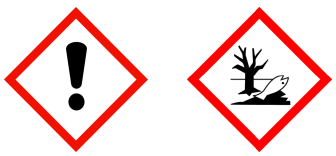
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2A
Respiratory or skin sensitization: Skin Sens. 1
Specific target organ toxicity single exposure: STOT SE 3 (respiratory tract irritation)
Hazardous to the aquatic environment: Aquatic Chronic 2

Label elements

29 CFR Part 1910.1200

Signal word: Warning

Pictograms:



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

Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash hands thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Call a poison center/doctor if you feel unwell.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.
If eye irritation persists: Get medical advice/attention.
If exposed or concerned: Get medical advice/attention.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/ container in accordance with local and national regulations.

Hazards not otherwise classified

No information available.

3. Composition/information on ingredients

Mixtures

Chemical characterization

Mixture of acrylic/ methacrylic resins with auxilliary matters.

Hazardous components

CAS No	Components	Quantity
93962-84-6	(Octahydro-4,7-methano-1H-indenyl)methyl acrylate	20 - < 40 %
66492-51-1	2-Propenoic acid, (5-ethyl-1,3-dioxan-5-yl)methyl ester	20 - < 40 %
	Urethanacrylat Oligomer	20 - < 40 %
72869-86-4	Urethane Dimenthacrylate	5 - < 20 %
142-90-5	dodecyl methacrylate	5 - < 20 %
5187-23-5	5-ethyl-1,3-dioxane-5-methanol	0,1 - < 5 %
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate	0,1 - < 5 %
818-61-1	2-hydroxyethyl acrylate	0,1 - < 5 %
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	0,1 - < 5 %
868-77-9	2-hydroxyethyl methacrylate	0,1 - < 5 %
128-37-0	"BHT; butylated hydroxytoluene"	0,1 - < 5 %

4. First-aid measures

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 plenty of water and soap. 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.

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).

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

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

Specific hazards arising from the chemical

Non-flammable.

Special protective equipment and precautions for fire-fighters

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

Additional information

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

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

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

Environmental precautions

Do not allow to enter into surface water or drains.

Methods and material for containment and cleaning up

Other information

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

Reference to other sections

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

7. Handling and storage

Precautions for safe handling

Advice on safe handling

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

Advice on protection against fire and explosion

No special fire protection measures are necessary.

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.

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.

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).

8. Exposure controls/personal protection

Control parameters

Exposure limits

CAS No	Substance	ppm	mg/m³	f/cc	Category	Origin
128-37-0	2,6-Di-tert-butyl-p-cresol	-	10		TWA (8 h)	REL

Exposure controls

Appropriate engineering controls

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

Individual protection measures, such as personal protective equipment

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: NBR (Nitrile rubber)

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	liquid:	
Color:	clear	
Odor:	faintly like esters	
		Test method
Melting point/freezing point:	not determined	
Boiling point or initial boiling point and boiling range:	not determined	
Flammability		
Solid/liquid:	not applicable	
Gas:	not applicable	
Lower explosion limits:	not determined	
Upper explosion limits:	not determined	
Flash point:	>100 °C	DIN 51755
Decomposition temperature:	>=190 °C	
pH-Value:	not determined	
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.	
Solubility in other solvents		
not determined		
Partition coefficient n-octanol/water:	not determined	

Vapor pressure: (at 20 °C)	<1 hPa	
Density (at 20 °C):	1,09 g/cm³	DIN 51757
Relative vapour density:	not determined	

Other information

Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable

Oxidizing properties

Not oxidizing.

Other safety characteristics

Evaporation rate:	not determined
Solid content:	not determined

10. Stability and reactivity

Reactivity

No hazardous reaction when handled and stored according to provisions.

Chemical stability

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

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

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.

Incompatible materials

No information available.

Hazardous decomposition products

No known hazardous decomposition products.

11. Toxicological information

Information on toxicological effects

Acute toxicity

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

ATEmix calculated

ATE (oral) 7608,7 mg/kg; ATE (dermal) 22731,8 mg/kg

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
93962-84-6	(Octahydro-4,7-methano-1H-indenyl)methyl acrylate				
	oral	LD50 2000 mg/kg	Rat		OECD 423
66492-51-1	2-Propenoic acid, (5-ethyl-1,3-dioxan-5-yl)methyl ester				
	oral	LD50 >2000 mg/kg	Rat		
	dermal	LD50 2000 mg/kg	Rat		
142-90-5	dodecyl methacrylate				
	oral	LD50 >5000 mg/kg	Rat	OECD 401	
	dermal	LD50 >3000 mg/kg	Rabbit		
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate				
	oral	LD50 >5000 mg/kg	Rat		
	dermal	LD50 >2000 mg/kg	Rat		
818-61-1	2-hydroxyethyl acrylate				
	oral	LD50 548 mg/kg	Rat		
	dermal	LD50 298 mg/kg	Rabbit	GESTIS	
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				
	oral	LD50 >5000 mg/kg	Rat		
	dermal	LD50 >2000 mg/kg	Rat		
868-77-9	2-hydroxyethyl methacrylate				
	oral	LD50 5564 mg/kg	Rat		
	dermal	LD50 >5000 mg/kg	Rabbit		
128-37-0	"BHT; butylated hydroxytoluene"				
	oral	LD50 890 mg/kg	Rat		
	dermal	LD50 >2000 mg/kg	Rat	OECD 402	

Irritation and corrosivity

Causes skin irritation

Causes serious eye irritation

Sensitizing effects

May cause an allergic skin reaction ((Octahydro-4,7-methano-1H-indenyl)methyl acrylate; 2-Propenoic acid, (5-ethyl-1,3-dioxan-5-yl)methyl ester; Urethanacrylat Oligomer; Urethane Dimenthacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate; 2-hydroxyethyl acrylate; diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide; 2-hydroxyethyl methacrylate)

Carcinogenic/mutagenic/toxic effects for reproduction

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

Specific target organ toxicity (STOT) - single exposure

May cause respiratory irritation ((Octahydro-4,7-methano-1H-indenyl)methyl acrylate; Urethanacrylat Oligomer)

Specific target organ toxicity (STOT) - repeated exposure

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

Carcinogenicity (IARC): Trimethylolpropane triacrylate, technical grade (CAS 15625-89-5) is listed in group 2B. Butylated hydroxytoluene (BHT) (CAS 128-37-0) is listed in group 3.

Aspiration hazard

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

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

12. Ecological information

Ecotoxicity

Toxic to aquatic life with long lasting effects.

CAS No	Components						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
93962-84-6	(Octahydro-4,7-methano-1H-indenyl)methyl acrylate						
	Acute fish toxicity	LC50	1,8 mg/l	96 h	Danio rerio (zebrafish)		OECD 203
	Acute algae toxicity	ErC50	1,15 mg/l	72 h	Pseudokirchneriella subcapitata		OECD 201
	Acute crustacea toxicity	EC50	2,64 mg/l	48 h	Daphnia magna (Big water flea)		OECD 202
66492-51-1	2-Propenoic acid, (5-ethyl-1,3-dioxan-5-yl)methyl ester						
	Acute fish toxicity	LC50	4 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)		
	Acute algae toxicity	ErC50	34 mg/l	72 h	Desmodesmus subspicatus		
	Acute crustacea toxicity	EC50	20 mg/l	48 h	Daphnia magna (Big water flea)		
	Acute bacteria toxicity	(EC50	>1,000 mg/l)	3 h	Activated sludge		
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate						
	Acute algae toxicity	ErC50	4,86 mg/l	96 h	Desmodesmus subspicatus		
	Acute crustacea toxicity	EC50	19,9 mg/l	48 h	Daphnia magna (Big water flea)		
818-61-1	2-hydroxyethyl acrylate						
	Acute fish toxicity	LC50	4,8 mg/l	96 h		GESTIS	
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide						
	Acute algae toxicity	ErC50	>2,01 mg/l	72 h	Pseudokirchneriella subcapitata		
	Acute crustacea toxicity	EC50	3,53 mg/l	48 h	Daphnia magna (Big water flea)		
	Acute bacteria toxicity	(EC50	>1000 mg/l)	3 h	Activated sludge		
868-77-9	2-hydroxyethyl methacrylate						
	Acute fish toxicity	LC50	>100 mg/l	96 h	Oryzias latipes		OECD 203
	Acute algae toxicity	ErC50	836 mg/l	72 h	Selenastrum capricornutum		OECD 201
	Acute crustacea toxicity	EC50	380 mg/l	48 h	Daphnia magna		OECD 202
128-37-0	"BHT; butylated hydroxytoluene"						
	Acute crustacea toxicity	EC50	0,48 mg/l	48 h	Daphnia pulex (water flea)		

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Components	Log Pow
66492-51-1	2-Propenoic acid, (5-ethyl-1,3-dioxan-5-yl)methyl ester	1,9
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate	0,67
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	3,1
128-37-0	"BHT; butylated hydroxytoluene"	5,1

BCF

CAS No	Components	BCF	Species	Source
142-90-5	dodecyl methacrylate	37	Danio rerio (zebrafish)	OECD 305
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	47-55	Cyprinus carpio (Common Carp)	

Mobility in soil

The product has not been tested.

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.

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.

13. Disposal considerations

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.

14. Transport information

Marine transport (IMDG)

UN number or ID number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Contains: (Octahydro-4,7-methano-1H-indenyl)methyl acrylate
Transport hazard class(es):	9
Packing group:	III
Hazard label:	9
Special Provisions:	274, 335, 969
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-F

Other applicable information (marine transport)

Flash point: >100°C

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Contains: (Octahydro-4,7-methano-1H-indenyl)methyl acrylate
Transport hazard class(es):	9

Packing group:	III
Hazard label:	9
Special Provisions:	A97 A158 A197
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

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes

Special precautions for user

No dangerous good in sense of this transport regulation.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No dangerous good in sense of this transport regulation.

15. Regulatory information

U.S. Regulations

National regulatory information

SARA Section 311/312 Hazards:

(Octahydro-4,7-methano-1H-indenyl)methyl acrylate (93962-84-6): Immediate (acute) health hazard
2-Propenoic acid, (5-ethyl-1,3-dioxan-5-yl)methyl ester (66492-51-1): Immediate (acute) health hazard
Urethanacrylat Oligomer (-): Immediate (acute) health hazard
Urethane Dimenthacrylate (72869-86-4): Immediate (acute) health hazard
dodecyl methacrylate (142-90-5): Immediate (acute) health hazard
2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate (15625-89-5): Immediate (acute) health hazard
2-hydroxyethyl acrylate (818-61-1): Immediate (acute) health hazard
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8): Immediate (acute) health hazard
2-hydroxyethyl methacrylate (868-77-9): Immediate (acute) health hazard
"BHT; butylated hydroxytoluene" (128-37-0): Immediate (acute) health hazard

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Revision date:	23.09.2022
Revision No:	1,12

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%

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
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
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
RID: Regulations concerning the international carriage of dangerous goods by rail
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
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

Other data

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.)