Trade name: FotoDent IBT
Substance number: 9702IBT
Version: 1 / GB
Date revised: 06.06.2023
Replaces Version: - / GB
Print date: 27.11.2023

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

### 1.1. Product identifier

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

Use of the substance/preparation
Material for the manufacturing of dental indirect bonding trays
1.3. Details of the supplier of the safety data sheet

Address/Manufacturer
Dreve Dentamid GmbH
Max-Planck-Straße 31
59423 Unna
Telephone no. +492303 8807-0
Fax no. +492303 8807-29
Information provided Department Research \& Development: Fax: +49 2303 8807-562
by / telephone
E-mail address of sicherheitsdatenblatt@dreve.com
person responsible
for this SDS
1.4. Emergency telephone number

Henkel Fire Department / 24h-Emergency-Contact-No.: +49 211 797-3350

## SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)
Classification (Regulation (EC) No. 1272/2008)

| Skin Irrit. 2 | H315 |
| :--- | :--- |
| Skin Sens. 1A | H317 |
| Repr. 2 | H361d |
| Aquatic Chronic 2 | H411 |

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008 For explanation of abbreviations see section 16.
2.2. Label elements

Labelling according to regulation (EC) No 1272/2008 Hazard pictograms


Signal word
Warning

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## Hazard statements

## H315

H317
H361d
H411

Causes skin irritation.
May cause an allergic skin reaction.
Suspected of damaging the unborn child.
Toxic to aquatic life with long lasting effects.

Precautionary statements
P201 Obtain special instructions before use.

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.
P308+P313 IF exposed or concerned: Get medical advice/ attention.
P501.1 Dispose of contents/container to industrial incineration plant.
Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)
contains
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate; 2-phenoxyethyl methacrylate; 2-
Hydroxyethyl acrylate; aliphatic urethane triacrylate

### 2.3. Other hazards

No special hazards have to be mentioned.
The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

## Hazardous ingredients




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## After ingestion

Call in a physician immediately and show him the Safety Data Sheet. Rinse mouth thoroughly with water. Let plenty of water be drunk in small gulps. Do not induce vomiting.
Adhere to personal protective measures when giving first aid
First aider: Pay attention to self-protection!

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

Until now no symptoms known so far.

### 4.3. Indication of any immediate medical attention and special treatment needed Hints for the physician / hazards

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media <br> Suitable extinguishing media

Recommended: alcohol resistant foam, CO2, powders, water spray/mist, Extinguishing measures to suit surroundings
Non suitable extinguishing media Full water jet
5.2. Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible.

### 5.3. Advice for firefighters

Special protective equipment for fire-fighting
Do not inhale explosion and/or combustion gases. In case of combustion use a suitable breathing apparatus. Wear full protective suit.
Other information
Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations. Observe manufacturer's / distributor`s instructions.

## SECTION 6: Accidental release measures

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

Keep away sources of ignition. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol. Avoid contact with skin, eyes and clothing. Use personal protective clothing. Refer to protective measures listed in Sections 7 and 8.

### 6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
6.3. Methods and material for containment and cleaning up

Pick up rest with suitable absorbent materials. Do not pick up with the help of saw-dust or other

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combustible substances. Clean contaminated floors and objects thoroughly, observing environmental regulations. Containers in which spilt substance has been collected must be adequately labelled.
Dispose of as prescribed.

### 6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling <br> Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid formation of aerosols. Avoid impact, friction and electro-static loading; risk of ignition!. Keep container tightly closed.
Advice on protection against fire and explosion
Keep away from sources of heat and ignition. No smoking. Take action to prevent static discharges.
Avoid impact and friction. Use only explosion-proof equipment. Keep away from combustible material.
Wear shoes with conductive soles.
7.2. Conditions for safe storage, including any incompatibilities

## Requirements for storage rooms and vessels

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

## Hints on storage assembly

Do not store together with foodstuffs. Do not store with strong oxidizing agents.

## Further information on storage conditions

Keep under lock and key or accessible only to specialists or people who are authorized. Keep container tightly closed and in a well-ventilated place. Keep in a cool place

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters <br> Other information

Contains no substances with occupational exposure limit values.

## Derived No/Minimal Effect Levels (DNEL/DMEL)

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

Type of value
Reference group
Duration of exposure
Route of exposure
Mode of action
Concentration
Type of value
Reference group
Duration of exposure
Route of exposure
Mode of action
Concentration

Derived No Effect Level (DNEL)
Worker
Long term
dermal
Systemic effects
0,233
Derived No Effect Level (DNEL)
Consumer
Long term
inhalative
Systemic effects
0,145
$\mathrm{mg} / \mathrm{kg} / \mathrm{d}$ $\mathrm{mg} / \mathrm{m}^{3}$

| Safety data sheet in accordance with regulation (EC) No 1907/2006 |  |  |  |
| :---: | :---: | :---: | :---: |
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| Type of value | Derived No Effect Level (DNEL) |  |  |
| Reference group | Consumer |  |  |
| Duration of exposure | Long term |  |  |
| Route of exposure | dermal |  |  |
| Mode of action | Systemic effects |  |  |
| Concentration | 0,0833 | $\mathrm{mg} / \mathrm{kg} / \mathrm{d}$ |  |
| Type of value | Derived No Effect Level (DNEL) |  |  |
| Reference group | Consumer |  |  |
| Duration of exposure | Long term |  |  |
| Route of exposure |  |  |  |
| Mode of action | Systemic effects |  |  |
| Concentration | 0,0833 | $\mathrm{mg} / \mathrm{kg} / \mathrm{d}$ |  |
| 2-Hydroxyethyl acrylate |  |  |  |
| Type of value | Derived No Effect Level (DNEL) |  |  |
| Duration of exposure | Long term |  |  |
| Route of exposure | inhalative |  |  |
| Mode of action | Local effects |  |  |
| Concentration | 2,4 | $\mathrm{mg} / \mathrm{m}^{3}$ |  |
| Type of value | Derived No Effect Level (DNEL) |  |  |
| Reference group | General Population |  |  |
| Duration of exposure | Long term |  |  |
| Route of exposure | inhalative |  |  |
| Mode of action | Local effects |  |  |
| Concentration | 1,2 | $\mathrm{mg} / \mathrm{m}^{3}$ |  |
| Predicted No Effect Concentration (PNEC) |  |  |  |
| Diphenyl( $2,4,6$-trimethylbenzoyl)phosphine oxide |  |  |  |
| Type of value | PNEC |  |  |
| Type Saltwater |  |  |  |
| Concentration 0,00014 |  | mg/l |  |
| Type of value | PNEC |  |  |
| Type | Freshwater sediment |  |  |
| Concentration$0,115$ |  | $\mathrm{mg} / \mathrm{kg}$ |  |
| Type of value | PNEC |  |  |
|  | Marine sediment |  |  |
| Concentration | 0,0115 | $\mathrm{mg} / \mathrm{kg}$ |  |
| Type of value | PNEC |  |  |
| Type | Soil |  |  |
| Concentration | 0,0222 | $\mathrm{mg} / \mathrm{kg}$ |  |
| 2-Hydroxyethyl acrylate |  |  |  |
| Type of value | PNEC |  |  |
| Type | Freshwater |  |  |
| Concentration | 0,017 | mg/l |  |
| Type of value | PNEC |  |  |
| Type | Marine |  |  |
| Concentration | 0,002 | mg/l |  |

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| Type of value | PNEC |  |
| :---: | :---: | :---: |
| Type | Water (intermittent release) |  |
| Concentration | 0,0361 | mg/l |
| Type of value | PNEC |  |
| Type | Freshwater sediment |  |
| Concentration | 0,064 | $\mathrm{mg} / \mathrm{kg}$ |
| Type of value | PNEC |  |
| Type | Marine sediment |  |
| Concentration | 0,006 | mg/kg |
| Type of value | PNEC |  |
| Type | Soil |  |
| Concentration | 0,003 | mg/kg |
| Type of value | PNEC |  |
| Type | Sewage treatment plant (STP) |  |
| Concentration | 10 | mg/l |

### 8.2. Exposure controls

## General protective and hygiene measures

Do not smoke during work time. Hold emergency shower available. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Take off immediately all contaminated clothing. Do not eat or drink during work time. Storage of foodstuffs in work rooms is forbidden. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

## Respiratory protection

Do not inhale vapours; Use suitable respiratory protective device in case of insufficient ventilation

## Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Hand protection must comply with EN 374.
Appropriate Material nitrile

## Eye protection

Safety glasses

## Body protection

Clothing as usual in the chemical industry.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties <br> Physical state <br> Colour <br> Odour <br> Melting point <br> liquid <br> clear, transparent <br> characteristic



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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No hazardous reactions when stored and handled according to prescribed instructions.
10.2. Chemical stability

No hazardous reactions known.
10.3. Possibility of hazardous reactions

No hazardous reactions known.
10.4. Conditions to avoid

Protect from heat and direct sunlight
10.5. Incompatible materials

None known
10.6. Hazardous decomposition products

Irritant gases/vapours

## SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 Acute oral toxicity

Remarks Based on available data, the classification criteria are not met.
Acute oral toxicity (Components)
Isodecylmethacrylate
Species rat (male)
LD50 $>5000 \mathrm{mg} / \mathrm{kg}$

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

Species
LD50
Method
rat
$>5000 \mathrm{mg} / \mathrm{kg}$
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate
Species rat
LD50
2-phenoxyethyl methacrylate
Species
LD50 Method Remarks
2-Hydroxyethyl acrylate Species rat LD50
aliphatic urethane triacrylate
Species
LD50
Acute dermal toxicity
ATE
Method
rat
> $5000 \mathrm{mg} / \mathrm{kg}$
OECD 401
Test conducted with a similar formulation.
$540 \quad \mathrm{mg} / \mathrm{kg}$
rat
$>5000 \mathrm{mg} / \mathrm{kg}$
$>\quad 10.000 \quad \mathrm{mg} / \mathrm{kg}$
calculated value (Regulation (EC) No. 1272/2008)



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## Single exposure

Remarks
Repeated exposure
Remarks
Aspiration hazard
Based on available data, the classification criteria are not met.

### 11.2 Information on other hazards

## Endocrine disrupting properties with respect to humans

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

## Experience in practice

Inhalation may lead to irritation of the respiratory tract.

## Other information

No toxicological data are available.

## SECTION 12: Ecological information

### 12.1. Toxicity

General information
not determined
Fish toxicity (Components)
Isodecylmethacrylate
Species golden orfe (Leuciscus idus)

LC50
Duration of exposure Method
golden orfe (Leuciscus idus)
$470 \mathrm{mg} / \mathrm{l}$

48 h
DIN 38412 / Part 15

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Species carp (Cyprinus carpio)
LC50
Duration of exposure
$\begin{array}{ll}1,4 & \\ 96 & \text { h }\end{array}$
Method
OECD 203
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate
$\begin{array}{lcc}\text { LC50 } & 4 & \mathrm{mg} / \mathrm{l} \\ \text { Method } & \end{array}$
2-phenoxyethyl methacrylate
Species golden orfe (Leuciscus idus)

EC50
Duration of exposure
Method
2-Hydroxyethyl acrylate
Species Fathead minnow (Pimephales promelas)
LC50
Duration of exposure
aliphatic urethane triacrylate
Species zebra fish (Brachydanio rerio)
EC50 $>100 \mathrm{mg} / \mathrm{l}$

Duration of exposure Method
appr. $10 \mathrm{mg} / \mathrm{l}$ 72 h
OECD 203

4,8 mg/l
96
h
$>100 \mathrm{mg} / \mathrm{l}$
OECD 203



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| evaluation | biodegradable |  |
| :---: | :---: | :---: |
| aliphatic urethane triacrylate evaluation not readily degradable |  |  |
| Ready degradability (Components) |  |  |
| (5-ethyl-1,3-dioxan-5-yl)methyl acrylate |  |  |
| Value | 28 | \% |
| Duration of test | 28 d |  |
| 2-Hydroxyethyl acrylate |  |  |
| Value | 80 | \% |
| Duration of test | 28 d |  |

12.3. Bioaccumulative potential

General information
not determined
Partition coefficient n -octanol/water (log value)
Remarks not determined
Octanol/water partition coefficient (log Pow) (Components)
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
log Pow
3,1
Temperature 23
2-phenoxyethyl methacrylate log Pow 3,14
2-Hydroxyethyl acrylate
log Pow
$-0,17$
Temperature 25
${ }^{\circ} \mathrm{C}$
aliphatic urethane triacrylate log Pow

4,23
Temperature 20
$20 \quad{ }^{\circ} \mathrm{C}$

Bioconcentration factor (BCF) (Components)
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
BCF 47 to 55

Concentration
Duration of exposure Medium Species
$0,1 \mathrm{mg} / \mathrm{l}$
8 Weeks
Freshwater carp (Cyprinus carpio)
12.4. Mobility in soil

General information
not determined

### 12.5. Results of PBT and vPvB assessment

## General information

 not determined
## Results of PBT and vPvB assessment

The product contains no PBT substances
The product contains no vPvB substances.

### 12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the envrionment
The product does not contain a substance that has endocrine disrupting properties with respect to nontarget organisms.

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### 12.7. Other adverse effects

General information
not determined
General information / ecology
Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Disposal recommendations for the product
Must not be disposed together with household garbage.
Dispose of waste according to applicable legislation.
Disposal recommendations for packaging
Packaging that cannot be cleaned should be disposed off as product waste.

| Safety data sheet in accordance with regulation (EC) No 1907/2006 |  |  |  |
| :---: | :---: | :---: | :---: |
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|  | Land transport ADR/RID | Marine transport IMDG/GGVSee | Air transport ICAO/IATA |
| 14.1. UN number or ID number | 3082 | 3082 | 3082 |
| 14.2. UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isodecylmethacrylate, (5-ethyl-1,3-dioxan-5-yl)methyl acrylate) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isodecylmethacrylate, (5-ethyl-1,3-dioxan-5-yl)methyl acrylate) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isodecylmethacrylate, (5-ethyl-1,3-dioxan-5-yl)methyl acrylate) |
| 14.3. Transport hazard class(es) | 9 | 9 | 9 |
| Label | A1 <br> $\stackrel{2}{2}$ |  |  |
| 14.4. Packing group | III | III | III |
| Remarks | The product is not subject to any other provisions of ADR provided packaging of not more than $5 \mathrm{I} /$ 5 kg | The product can be transported in accordance with IMDG Code paragraph 2.10.2.7, provided packaging not more than $5 \mathrm{I} / 5$ kg . | The product is not subject to any other provisions of IATA provided packaging of not more than $5 \mathrm{I} /$ 5 kg (A197) |
| Limited Quantity | 51 | 51 |  |
| Transport category | 3 |  |  |
| 14.5. Environmental hazards | - |  |  |
| Tunnel restriction code | - |  |  |

## SECTION 15: Regulatory information

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

Other information
All components are contained in the TSCA inventory or exempted.
15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

## SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification (Regulation (EC) No. 1272/2008) Skin Irrit. 2

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| Skin Sens. 1A | H317 | Calculation method |
| :--- | :--- | :--- |
| Repr. 2 | H361d | Calculation method |
| Aquatic Chronic 2 | H411 | Calculation method |

## Hazard statements listed in Chapter 2/3

H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H361d Suspected of damaging the unborn child.
H361f Suspected of damaging fertility.
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.
H413 May cause long lasting harmful effects to aquatic life.

## CLP categories listed in Chapter 2/3

Acute Tox. 3
Aquatic Acute 1
Aquatic Chronic 1
Aquatic Chronic 2
Aquatic Chronic 4
Eye Irrit. 2
Repr. 2
Skin Corr. 1B
Skin Irrit. 2
Skin Sens. 1
Skin Sens. 1A
STOT SE 3

Acute toxicity, Category 3
Hazardous to the aquatic environment, acute, Category 1
Hazardous to the aquatic environment, chronic, Category 1
Hazardous to the aquatic environment, chronic, Category 2
Hazardous to the aquatic environment, chronic, Category 4
Eye irritation, Category 2
Reproductive toxicity, Category 2
Skin corrosion, Category 1B
Skin irritation, Category 2
Skin sensitization, Category 1
Skin sensitization, Category 1A
Specific target organ toxicity - single exposure, Category 3

## Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: *** This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

