

Safety Data Sheet

according to 29 CFR 1910.1200(g)

freeprint® gingiva 385

Revision date: 02/24/2023

Product code: 1045

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1. Identification

Product identifier

freeprint® gingiva 385

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Light-curing resin for the generative fabrication of flexible gingival masks for models.

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

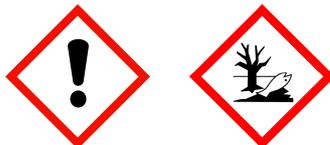
Serious eye damage/eye irritation: Eye Irrit. 2A
 Respiratory or skin sensitization: Skin Sens. 1
 Hazardous to the aquatic environment: Aquatic Chronic 2

Label elements

29 CFR Part 1910.1200

Signal word: Warning

Pictograms:



Hazard statements

Causes serious eye irritation
 May cause an allergic skin reaction
 Toxic to aquatic life with long lasting effects

Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray.
 Wash hands thoroughly after handling.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If on skin: Wash with plenty of water.
 If skin irritation or rash occurs: Get medical advice/attention.
 Wash contaminated clothing before reuse.
 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.
 Dispose of contents/ container in accordance with local and national regulations.

Hazards not otherwise classified

No information available.

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3. Composition/information on ingredients

Mixtures

Chemical characterization

Mixture of acrylic/ methacrylic resins with auxilliary matters.

Hazardous components

| CAS No | Components | Quantity |
|-------------|--|-------------|
| 63225-53-6 | 2-[[[butylamino]carbonyl]oxy]ethyl acrylate | 20 - < 40 % |
| 27813-02-1 | Hydroxy propyl methacrylate | 5 - < 20 % |
| 72869-86-4 | 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate | 5 - < 20 % |
| 142-90-5 | dodecyl methacrylate | 5 - < 20 % |
| 162881-26-7 | phenyl bis(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 1 glass 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

Suppress 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

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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

For cleaning up

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.

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

No special measures are necessary.

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 or drink.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

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 light. 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/m ³ | f/cc | Category | Origin |
|----------|----------------------------|-----|-------------------|------|-----------|--------|
| 128-37-0 | 2,6-Di-tert-butyl-p-cresol | - | 10 | | TWA (8 h) | REL |

Exposure controls

Individual protection measures, such as personal protective equipment

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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

Use of 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: | gingiva coloured |
| 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 |
| Auto-ignition temperature: | not determined |
| 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: | ca. 1 hPa |
| (at 20 °C) | |
| Density (at 20 °C): | 1,1 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.

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Evaporation rate: not determined

Solid content: not determined

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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 alkaline or acidic materials., oxidising agents, radicals forming substances or heavy metal ions.

Conditions to avoid

Ultra-violet light and daylight initiate polymerisation of the product. Therefore keep only in tightly closed containers away from any sources of light 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) 11997,4 mg/kg; ATE (dermal) 10077,1 mg/kg; ATE (inhalation vapour) 38,34 mg/l; ATE (inhalation dust/mist) 5,228 mg/l

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| CAS No | Components | | | | |
|-------------|--|----------------------|---------|----------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 63225-53-6 | 2-[[butylamino]carbonyl]oxyethyl acrylate | | | | |
| | oral | LD50 2000-5000 mg/kg | Rat | OECD 423 | |
| | inhalation vapour | ATE 11 mg/l | | | |
| | inhalation dust/mist | ATE 1,5 mg/l | | | |
| 27813-02-1 | Hydroxy propyl methacrylate | | | | |
| | oral | LD50 >2000 mg/kg | Rat | OECD 401 | |
| | dermal | LD50 >5000 mg/kg | Rabbit | | |
| 72869-86-4 | 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate | | | | |
| | oral | LD50 >5000 mg/kg | Rat | OECD 401 | |
| | dermal | LD50 >2000 mg/kg | Rat | OECD 402 | |
| 142-90-5 | dodecyl methacrylate | | | | |
| | oral | LD50 >5000 mg/kg | Rat | OECD 401 | |
| | dermal | LD50 >3000 mg/kg | Rabbit | | |
| 162881-26-7 | phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide | | | | |
| | oral | LD50 >2000 mg/kg | Rat | OECD 401 | |
| | dermal | LD50 >2000 mg/kg | Rat | OECD 402 | |
| 868-77-9 | 2-hydroxyethyl methacrylate | | | | |
| | oral | LD50 5564 mg/kg | Rat | | |
| | dermal | LD50 >5000 mg/kg | Rabbit | | |

Irritation and corrosivity

Causes serious eye irritation

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitizing effects

May cause an allergic skin reaction (2-[[butylamino]carbonyl]oxyethyl acrylate; Hydroxy propyl methacrylate; 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate; phenyl bis(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

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

Specific target organ toxicity (STOT) - repeated exposure

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

Carcinogenicity (OSHA):

No ingredient of this mixture is listed.

Carcinogenicity (IARC):

Butylated hydroxytoluene (BHT) (CAS 128-37-0) is listed in group 3.

Carcinogenicity (NTP):

No ingredient of this mixture is listed.

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Aspiration hazard

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

Further information

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 |
| 63225-53-6 | 2-[[[(butylamino)carbonyl]oxy]ethyl acrylate | | | | | |
| | Acute fish toxicity | LC50 mg/l | 2,52 | 96 h | OECD 203 | |
| | Acute algae toxicity | ErC50 mg/l | 5,98 | 72 h | OECD 201 | |
| | Acute crustacea toxicity | EC50 mg/l | 18,6 | 48 h | OECD 202 | |
| 27813-02-1 | Hydroxy propyl methacrylate | | | | | |
| | 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 |
| 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 fish toxicity | LC50 mg/l | 10,1 | 96 h | | OECD 203 |
| | Acute algae toxicity | ErC50 mg/l | 0,21 | 72 h | | OECD 201 |
| | Acute crustacea toxicity | EC50 mg/l | >1,2 | 48 h | Daphnia magna (Big water flea) | OECD 202 |
| 162881-26-7 | phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide | | | | | |
| | Acute fish toxicity | LC50 mg/l | >0,09 | 96 h | Danio rerio (zebrafish) | 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 d | Daphnia magna (Big water flea) | OECD 211 |
| | Acute bacteria toxicity | (EC50 mg/l) | >100 | 3 h | OECD 209 | |
| 868-77-9 | 2-hydroxyethyl methacrylate | | | | | |
| | Acute fish toxicity | LC50 mg/l | >100 | 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 mg/l | 0,61 | 48 h | Daphnia ssp | OECD 202 |

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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 |
|-------------|--|---------|
| 63225-53-6 | 2-[[[(butylamino)carbonyl]oxy]ethyl acrylate | 1,82 |
| 27813-02-1 | Hydroxy propyl methacrylate | 0,97 |
| 72869-86-4 | 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate | 3,39 |
| 162881-26-7 | phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide | 5,8 |
| 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 |
| 162881-26-7 | phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide | <5 | Cyprinus carpio (Common Carp) | OECD 305 |

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

U.S. DOT 49 CFR 172.101

| | |
|------------------------------------|---|
| <u>UN number or ID number:</u> | UN 3082 |
| <u>Proper shipping name:</u> | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| <u>Transport hazard class(es):</u> | 9 |
| <u>Packing group:</u> | III |
| Hazard label: | 9 |

Marine transport (IMDG)

| | |
|------------------------------------|---|
| <u>UN number or ID number:</u> | UN 3082 |
| <u>UN proper shipping name:</u> | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| <u>Transport hazard class(es):</u> | 9 |
| <u>Packing group:</u> | III |

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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)

Contains: 2-[[[(Butylamino)carbonyl]oxy]ethylacrylat

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number: UN 3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport hazard class(es): 9
Packing group: III
 Hazard 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: 2-[[[(Butylamino)carbonyl]oxy]ethylacrylat

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:

- 2-[[[(butylamino)carbonyl]oxy]ethyl acrylate (63225-53-6): Immediate (acute) health hazard
- Hydroxy propyl methacrylate (27813-02-1): Immediate (acute) health hazard
- 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate (72869-86-4): Immediate (acute) health hazard
- dodecyl methacrylate (142-90-5): Immediate (acute) health hazard
- phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide (162881-26-7): Immediate (acute) health hazard
- 2-hydroxyethyl methacrylate (868-77-9): 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: 24.02.2023
 Revision No: 1,12

Abbreviations and acronyms

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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
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)
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
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

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.)