

Basic Resin

Version number: SDS 3.0
 Replaces version of: 2023-01-19 (SDS 2)

Revision: 2023-03-12

SECTION 1: Identification

1.1 Product identifier

Trade name Basic Resin

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

Relevant identified uses. 3D printing resin

1.3 Details of the supplier of the safety data sheet

AprintaPro GmbH
 Gutheil Schoder Gasse 17
 1230 Wien
 Austria

Telephone: +43 1 997809410
 e-mail: office@aprintapro.com
 Website: <https://www.aprintapro.com>

e-mail (competent person) office@aprintapro.com

1.4 Emergency telephone number

Emergency information service +43 1 997809410
 This number is only available during the following office hours:
 Mon-Fri 08:00 - 16:00

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.4S	skin sensitization	1	Skin Sens. 1	H317

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word warning

- Pictograms

GHS07



- Hazard statements

H317 May cause an allergic skin reaction.

- Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P103 Read label before use.
 P261 Avoid breathing mist/vapors/spray.
 P272 Contaminated work clothing must not be allowed out of the workplace.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352 If on skin: Wash with plenty of water.
 P321 Specific treatment (see on this label).
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P363 Wash contaminated clothing before reuse.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Basic Resin

Version number: SDS 3.0
Replaces version of: 2023-01-19 (SDS 2)

Revision: 2023-03-12

- Hazardous ingredients for labelling

2,2'-ethylenedioxydiethyl dimethacrylate, phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

2.3 Other hazards

Hazards not otherwise classified

Very toxic to aquatic life with long lasting effects (GHS category 1: aquatic toxicity - acute and/or chronic).

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS
2,2'-ethylenedioxydiethyl dimethacrylate	CAS No 109-16-0	10 – < 25	Skin Sens. 1B / H317 HNOC002 HNOC007
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	CAS No 162881-26-7	1 – < 5	Skin Sens. 1A / H317 HNOC001 HNOC002 HNOC008

For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

Basic Resin

Version number: SDS 3.0
Replaces version of: 2023-01-19 (SDS 2)

Revision: 2023-03-12

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO₂)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

Basic Resin

Version number: SDS 3.0
Replaces version of: 2023-01-19 (SDS 2)

Revision: 2023-03-12

7.2 Conditions for safe storage, including any incompatibilities

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)
this information is not available

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	DNEL	48.5 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	DNEL	13.9 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	PNEC	0.016 mg/l	aquatic organisms	freshwater	short-term (single instance)
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	PNEC	0.002 mg/l	aquatic organisms	marine water	short-term (single instance)
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	PNEC	1.7 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	PNEC	0.185 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	PNEC	0.018 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	PNEC	0.027 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. 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.

- Type of material

Nitrile

- Material thickness

≥0,35mm

Basic Resin

Version number: SDS 3.0
Replaces version of: 2023-01-19 (SDS 2)

Revision: 2023-03-12

- Breakthrough times of the glove material
>60 minutes (permeation: level 3)

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Filtering half mask (EN 149). P1 (filters at least 80 % of airborne particles, color code: White).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	light yellow
Particle	not relevant (liquid)
Odor	mild sweet

Other safety parameters

PH (value)	6 – 8 (in aqueous solution: 100 % (w/w))
Melting point/freezing point	-88 °C at 1,004 hPa
Boiling point or initial boiling point and boiling range	>168 °C at 101.3 kPa
Flash point	not determined
Evaporation rate	not determined
Flammability	not relevant, (fluid)
Vapor pressure	0.077 Pa at 20 °C
Density	1.18 g/cm ³ at 20 °C
Vapor density	this information is not available
Solubility(ies)	not determined
Partition coefficient	
- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	255 °C (auto-ignition temperature (liquids and gases))
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

9.2 Other information

Temperature class (USA, acc. to NEC 500)	T2C (maximum permissible surface temperature on the equipment: 230°C)
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SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

Basic Resin

Version number: SDS 3.0
Replaces version of: 2023-01-19 (SDS 2)

Revision: 2023-03-12

10.4 Conditions to avoid

UV-radiation/sunlight.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.
Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Basic Resin

 Version number: SDS 3.0
 Replaces version of: 2023-01-19 (SDS 2)

Revision: 2023-03-12

Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	LC50	23.1 mg/l	fish	24 h
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	ErC50	>100 mg/l	algae	72 h
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	EC50	72.8 mg/l	algae	72 h
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	LC50	>90 µg/l	fish	96 h
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	EC50	>1,175 µg/l	aquatic invertebrates	48 h
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	ErC50	>260 µg/l	algae	72 h

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	EC50	51.9 mg/l	aquatic invertebrates	21 d
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	EC50	>100 mg/l	microorganisms	3 h

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

 According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.

12.6 Endocrine disrupting properties

 Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

Basic Resin

Version number: SDS 3.0
 Replaces version of: 2023-01-19 (SDS 2)

Revision: 2023-03-12

SECTION 14: Transport information

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|--|--|
| 14.1 UN number | not subject to transport regulations |
| 14.2 UN proper shipping name | not relevant |
| 14.3 Transport hazard class(es) | none |
| 14.4 Packing group | not assigned |
| 14.5 Environmental hazards | non-environmentally hazardous acc. to the dangerous goods regulations |
| 14.6 Special precautions for user | There is no additional information. |
| 14.7 Transport in bulk according to IMO instruments | The cargo is not intended to be carried in bulk. |
| 14.8 Information for each of the UN Model Regulations | <p>Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information
 Not subject to transport regulations.</p> <p>International Maritime Dangerous Goods Code (IMDG) - Additional information
 Not subject to IMDG.</p> <p>International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information
 Not subject to ICAO-IATA.</p> |

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations specific for the product in question**
- National regulations (United States)**
- Toxic Substance Control Act (TSCA)** all ingredients are listed as "ACTIVE"
- Superfund Amendment and Reauthorization Act (SARA TITLE III)**
- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)
 none of the ingredients are listed
 - Specific Toxic Chemical Listings (EPCRA Section 313)
 none of the ingredients are listed
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**
- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)
 none of the ingredients are listed
- Clean Air Act**
- none of the ingredients are listed
- Right to Know Hazardous Substance List**
- Cleaning Product Right to Know Act Substance List (CA-RTK)
 none of the ingredients are listed
 - Toxic or Hazardous Substance List (MA-TURA)
 none of the ingredients are listed
 - Hazardous Substances List (MN-ERTK)
 none of the ingredients are listed
 - Hazardous Substance List (NJ-RTK)
 none of the ingredients are listed

Basic Resin

Version number: SDS 3.0
Replaces version of: 2023-01-19 (SDS 2)

Revision: 2023-03-12

- Hazardous Substance List (Chapter 323) (PA-RTK)
none of the ingredients are listed

- Hazardous Substance List (RI-RTK)
none of the ingredients are listed

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

none of the ingredients are listed

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	/	none
Health	2	temporary or minor injury may occur
Flammability	1	material that must be preheated before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	2	material that, under emergency conditions, can cause temporary incapacitation or residual injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
AU	AIIIC	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	not all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed

Basic Resin

Version number: SDS 3.0
Replaces version of: 2023-01-19 (SDS 2)

Revision: 2023-03-12

Legend

AIIC	Australian Inventory of Industrial Chemicals
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Indication of changes (revised safety data sheet)

Section	Actual entry (text/value)
2.3	Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.
2.3	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.
3.2	Description of the mixture: change in the listing (table)
8.2	Respiratory protection: In case of inadequate ventilation wear respiratory protection. Filtering half mask (EN 149). P1 (filters at least 80 % of airborne particles, color code: White).
12.5	Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.
12.6	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.
15.1	Toxic Substance Control Act (TSCA): all ingredients are listed as "ACTIVE"

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ErC50	\equiv EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)

Basic Resin

Version number: SDS 3.0
Replaces version of: 2023-01-19 (SDS 2)

Revision: 2023-03-12

Abbr.	Descriptions of used abbreviations
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
NLP	No-Longer Polymer
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
Skin Sens.	Skin sensitization
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H317	May cause an allergic skin reaction.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.