

Safety data sheet

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BASF 3D Printing Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 20.04.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Ultracur3D® UV Adhesion Promoter**

(ID no. 30784642/SDS_GEN_EU/EN)

Date of print 20.04.2021

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

1.1. Product identifier

Ultracur3D® UV Adhesion Promoter

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

Recommended use: Sprayable

1.3. Details of the supplier of the safety data sheet

Company:

BASF 3D Printing Solutions GmbH
Speyerer Str. 4
69115 Heidelberg, Germany

Telephone: +49 6221 67417 900

E-mail address: sales@basf-3dps.com

1.4. Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

For the classification of the mixture the following methods have been applied: extrapolation on the concentration levels of the hazardous substances, on basis of test results and after evaluation of experts. The methodologies used are mentioned at the respective test results.

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According to Regulation (EC) No 1272/2008 [CLP]

Skin Corr./Irrit. 2	H315 Causes skin irritation.
Eye Dam./Irrit. 1	H318 Causes serious eye damage.
Skin Sens. 1B	H317 May cause an allergic skin reaction.
STOT SE 3	H335 May cause respiratory irritation.
Aquatic Acute 1	H400 Very toxic to aquatic life.
Aquatic Chronic 2	H411 Toxic to aquatic life with long lasting effects.
Flam. Liq. 2	H225 Highly flammable liquid and vapour.

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

Globally Harmonized System, EU (GHS)

Pictogram:



Signal Word:

Danger

Hazard Statement:

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273	Avoid release to the environment.
P280	Wear protective gloves, protective clothing and eye protection or face protection.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
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Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
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According to Regulation (EC) No 1272/2008 [CLP]

Hazard determining component(s) for labelling: 4-Hydroxybutyl acrylate, 2,2-bis(acryloyloxymethyl)butyl acrylate, Oxybis(methyl-2,1-ethanediyl) diacrylate, Isobornylacrylat, isobornyl acrylate

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

organic solvent, unsaturated acrylic resin

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

ethyl acetate

Content (W/W): >= 10 % - < 12.5 %	Flam. Liq. 2
CAS Number: 141-78-6	Eye Dam./Irrit. 2
EC-Number: 205-500-4	STOT SE 3 (drowsiness and dizziness)
REACH registration number: 01-2119475103-46	H225, H319, H336
INDEX-Number: 607-022-00-5	EUH066

4-Hydroxybutyl acrylate

Content (W/W): >= 12.5 % - < 15 %	Acute Tox. 4 (oral)
CAS Number: 2478-10-6	Skin Corr./Irrit. 2
EC-Number: 219-606-3	Eye Dam./Irrit. 1
REACH registration number: 01-2119957314-36	Skin Sens. 1
	H318, H315, H302, H317

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hexamethylene diacrylate

Content (W/W): $\geq 3\%$ - $< 5\%$

CAS Number: 13048-33-4

EC-Number: 235-921-9

REACH registration number: 01-2119484737-22

Skin Corr./Irrit. 2

Eye Dam./Irrit. 2

Skin Sens. 1

Aquatic Acute 1

Aquatic Chronic 2

M-factor acute: 1

H319, H315, H317, H411, H400

2,2-bis(acryloyloxymethyl)butyl acrylate

Content (W/W): $\geq 0.5\%$ - $< 1\%$

CAS Number: 15625-89-5

EC-Number: 239-701-3

REACH registration number: 01-2119489896-11

INDEX-Number: 607-111-00-9

Skin Corr./Irrit. 2

Eye Dam./Irrit. 2

Skin Sens. 1

Aquatic Acute 1

Aquatic Chronic 1

M-factor acute: 1

H319, H315, H317, H400, H410

Oxybis(methyl-2,1-ethanediyl) diacrylate

Content (W/W): $\geq 12.5\%$ - $< 15\%$

CAS Number: 57472-68-1

EC-Number: 260-754-3

REACH registration number: 01-2119484629-21

Skin Corr./Irrit. 2

Eye Dam./Irrit. 1

Skin Sens. 1

H318, H315, H317

urethaneacrylate

Content (W/W): $\geq 7\%$ - $< 10\%$

Skin Corr./Irrit. 2

Eye Dam./Irrit. 2

H319, H315

Reaction mass of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate;(2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate

Content (W/W): $\geq 5\%$ - $< 7\%$

EC-Number: 442-300-8

REACH registration number: 01-0000018586-60

INDEX-Number: 607-631-00-6

Skin Sens. 1

H317

Differing classification according to current knowledge and the criteria given in Annex I of Regulation (EC) No. 1272/2008

Skin Sens. 1A

2-Propenoic acid, reaction products with pentaerythrite

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Content (W/W): $\geq 5\%$ - $< 7\%$
CAS Number: 1245638-61-2
EC-Number: 629-850-6
REACH registration number:
01211949000349

Acute Tox. 4 (oral)
Skin Corr./Irrit. 2
Eye Dam./Irrit. 1
Skin Sens. 1
Aquatic Chronic 2
H318, H315, H302, H317, H411

Isobornylacrylat

Content (W/W): $\geq 12.5\%$ - $< 15\%$
CAS Number: 5888-33-5
EC-Number: 227-561-6
REACH registration number:
01211995786225

Skin Corr./Irrit. 2
Skin Sens. 1
STOT SE 3 (irr. to respiratory syst.)
Aquatic Acute 1
Aquatic Chronic 1
Eye Dam./Irrit. 2
M-factor acute: 1
M-factor chronic: 1
H319, H315, H317, H410, H335

Differing classification according to current knowledge and the criteria given in Annex I of Regulation (EC) No. 1272/2008

Skin Sens. 1
STOT SE 3 (irr. to respiratory syst.)
Aquatic Acute 1
Aquatic Chronic 1
Skin Corr./Irrit. 2
Eye Dam./Irrit. 2

Specific concentration limit:

STOT SE 3, irr. to respiratory syst.: $\geq 10\%$

isobornyl acrylate

Content (W/W): $\geq 5\%$ - $< 7\%$
CAS Number: 5888-33-5
EC-Number: 227-561-6

Skin Corr./Irrit. 2
STOT SE 3 (irr. to respiratory syst.)
Aquatic Acute 1
Aquatic Chronic 1
Eye Dam./Irrit. 2
Skin Sens. 1B
H319, H315, H317, H410, H335

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected

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person from danger area. Immediately remove contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:

If symptoms persist, seek medical advice. Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. In case of skin contact avoid direct exposure to sunlight or other UV radiation since this would increase sensitisation of the skin. Do NOT use solvents or thinners.

On contact with eyes:

Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required. In case of accidental eye contact avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of the eyes.

On ingestion:

Do not induce vomiting. Rinse mouth thoroughly with water, seek medical attention. If adverse health effects develop seek medical attention.

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

Symptoms: allergic symptoms, irritation of respiratory tract, skin irritation, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment: Symptomatic treatment (decontamination, vital functions).

Antidote: No known specific antidote.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:

water jet

5.2. Special hazards arising from the substance or mixture

Advice: Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

5.3. Advice for fire-fighters

Special protective equipment:

Appropriate breathing apparatus may be required.

Further information:

Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

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SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours. For non-emergency personnel: Use personal protective clothing. Ensure adequate ventilation. Keep away from sources of ignition. For emergency responders: Advice on product handling can be found in sections 7 and 8 of this safety data sheet. Information regarding personal protective measures, see section 8.

6.2. Environmental precautions

Do not allow to enter drains or waterways. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency. Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for disposal according with the waste regulations (see section 13). Clean preferably with a detergent; avoid the use of solvents. Ensure adequate ventilation.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from oxidising agents, from strongly alkaline and strongly acid materials.

Suitable materials for containers: Stainless steel 1.4301 (V2), Carbon steel (Iron), tinned carbon steel (Tinplate)

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Further information on storage conditions: Keep container dry. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Always keep in containers of same material as the original one. Observe label precautions.

7.3. Specific end use(s)

Please refer to the technical leaflet for further information.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with PNEC

141-78-6: ethyl acetate

freshwater: 0.24 mg/l
marine water: 0.024 mg/l
intermittent release: 1.65 mg/l
STP: 650 mg/l
sediment (freshwater): 1.15 mg/kg
sediment (marine water): 0.115 mg/kg
soil: 0.148 mg/kg
oral (secondary poisoning): 0.2 mg/kg

2478-10-6: 4-Hydroxybutyl acrylate

freshwater: 0.0136 mg/l
marine water: 0.00136 mg/l
STP: 10 mg/l
sediment (freshwater): 0.086 mg/kg
sediment (marine water): 0.00856 mg/kg
soil: 0.0367 mg/kg
intermittent release: 0.136 mg/l

13048-33-4: hexamethylene diacrylate

freshwater: 0.00723 mg/l
marine water: 0.000723 mg/l
sediment (freshwater): 0.493 mg/kg
sediment (marine water): 0.0493 mg/kg
soil: 0.094 mg/kg
STP: 2.7 mg/l

15625-89-5: 2,2-bis(acryloyloxymethyl)butyl acrylate

freshwater: 0.00087 mg/l
marine water: 0.000087 mg/l
intermittent release: 0.0087 mg/l
sediment (freshwater): 0.017 mg/kg
sediment (marine water): 0.0017 mg/kg
soil: 0.003 mg/kg
STP: 6.25 mg/l
oral (secondary poisoning): 10 mg/kg

57472-68-1: Oxybis(methyl-2,1-ethanediyl) diacrylate

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freshwater: 0.0034 mg/l
 marine water: 0.00034 mg/l
 intermittent release: 0.034 mg/l
 sediment (freshwater): 0.00884 mg/kg
 sediment (marine water): 0.000884 mg/kg
 soil: 0.0013 mg/kg
 STP: 100 mg/l

1245638-61-2: 2-Propenoic acid, reaction products with pentaerythrite

5888-33-5: Isobornylacrylat

marine water: 0.000092 mg/l
 freshwater: 0.00092 mg/l
 intermittent release: 0.00704 mg/l
 soil: 0.0285 mg/kg
 sediment (freshwater): 0.145 mg/kg
 STP: 2 mg/l
 sediment (marine water): 0.0145 mg/kg
 STP: 2 mg/l
 freshwater: 0.001 mg/l
 marine water: 0 mg/l
 sediment (freshwater): 0.145 mg/kg
 sediment (marine water): 0.015 mg/kg
 soil: 0.029 mg/kg

Components with DNEL

141-78-6: ethyl acetate

worker: Long-term exposure - systemic and local effects, Inhalation: 734 mg/m³
 worker: Long-term exposure- systemic effects, dermal: 63 mg/kg
 worker: Short-term exposure - systemic and local effects, Inhalation: 1468 mg/m³
 consumer: Long-term exposure- systemic effects, dermal: 37 mg/kg
 consumer: Long-term exposure - systemic and local effects, Inhalation: 367 mg/m³
 consumer: Long-term exposure- systemic effects, oral: 4.5 mg/kg
 consumer: Short-term exposure - systemic and local effects, Inhalation: 734 mg/m³

2478-10-6: 4-Hydroxybutyl acrylate

worker: Long-term exposure - local effects, Inhalation: 3 mg/m³
 worker: Short-term exposure - local effects, Inhalation: 3 mg/m³
 worker: Long-term exposure- systemic effects, dermal: 8.2 mg/kg

13048-33-4: hexamethylene diacrylate

worker: Long-term exposure- systemic effects, Inhalation: 24.48 mg/m³
 worker: Long-term exposure- systemic effects, dermal: 2.77 mg/kg
 consumer: Long-term exposure- systemic effects, Inhalation: 7.2 mg/m³
 consumer: Long-term exposure- systemic effects, dermal: 1.66 mg/kg
 consumer: Long-term exposure- systemic effects, oral: 2.1 mg/kg

15625-89-5: 2,2-bis(acryloyloxymethyl)butyl acrylate

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worker: Long-term exposure- systemic effects, Inhalation: 16.2 mg/m³
 worker: Long-term exposure- systemic effects, dermal: 0.80 mg/kg bw/day
 consumer: Long-term exposure- systemic effects, Inhalation: 4.9 mg/m³
 consumer: Long-term exposure- systemic effects, dermal: 0.48 mg/kg bw/day
 consumer: Long-term exposure- systemic effects, oral: 1.39 mg/kg bw/day

57472-68-1: Oxybis(methyl-2,1-ethanediyl) diacrylate

worker: Long-term exposure- systemic effects, Inhalation: 24.48 mg/m³

5888-33-5: Isobornylacrylate

consumer: Long-term exposure- systemic effects, oral: 0.83 mg/kg
 Repeated dose toxicity
 consumer: Long-term exposure- systemic effects, dermal: 0.83 mg/kg
 Repeated dose toxicity
 worker: Long-term exposure- systemic effects, dermal: 1.39 mg/kg
 Repeated dose toxicity
 worker: Long-term exposure- systemic effects, dermal: 1.39 mg/kg
 worker: Long-term exposure- systemic effects, Inhalation: 4.9 mg/m³
 consumer: Long-term exposure- systemic effects, dermal: 0.83 mg/kg
 consumer: Long-term exposure- systemic effects, Inhalation: 1.45 mg/m³
 consumer: Long-term exposure- systemic effects, oral: 0.83 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn.

Personal protective equipment

Respiratory protection:

Suitable respiratory protection: e.g. half-mask with A1P2 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:

Further information on penetration time is available from the manufacturer of the glove.
 Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
 The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
 Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
 The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
 Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
 butyl rubber gloves - material thickness: 0,5 mm

Eye protection:

tight-fitting protective goggles with face screen, Required when there is a risk of eye contact.

Body protection:

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Wear chemical-resistant disposable coverall and boots., Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures

Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

Environmental exposure controls

For information regarding environmental exposure controls, see Section 6.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form:	liquid
Colour:	colourless
Odour:	specific
pH value:	
	substance/mixture is non-soluble (in water)
Melting point:	not determined
onset of boiling:	not determined
Flash point:	22 °C
Flammability:	Highly flammable liquid and vapour.
Lower explosion limit:	36 g/m ³
Ignition temperature:	> 200 °C
Vapour pressure:	(20 °C) not determined
	(50 °C) not determined
Density:	1.050 g/cm ³ (20 °C)
Viscosity, kinematic:	411.6 mm ² /s (20 °C)
	(40 °C) not determined
Explosion hazard:	not explosive
Fire promoting properties:	not fire-propagating

9.2. Other information

Burning rate:	The material doesn't meet the criteria specified in paragraph 33.2.1.4.4 of UN manual of tests and criteria.	(UN Test N.1 (ready combustible solids))
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Self heating ability: It is not a substance capable of spontaneous heating.

Miscibility with water:

immiscible

Flow time:

> 60 s

(DIN EN ISO 2431; 6 mm)

SECTION 10: Stability and Reactivity

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.

10.4. Conditions to avoid

Avoid UV-light and other radiation with high energy. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame.

10.5. Incompatible materials

Substances to avoid:

Keep away from highly acidic or alkaline substances as well as oxidants in order to prevent exothermal reactions., Keep away from free radical initiators, peroxides, strong alkalis and reactive materials to avoid exothermic polymerization.

10.6. Hazardous decomposition products

When exposed to high temperatures hazardous decomposition products such as carbon monoxide, carbon dioxide, smoke, oxides of nitrogen may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

The mixture has been assessed following regulation (EC) No 1272/2008. See sections 2 and 3 for details.

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

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs

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may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Irritation

Assessment of irritating effects:

Skin contact causes irritation. May cause severe damage to the eyes.

Respiratory/Skin sensitization

Assessment of sensitization:

Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:

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

Carcinogenicity

Assessment of carcinogenicity:

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

Reproductive toxicity

Assessment of reproduction toxicity:

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

Developmental toxicity

Assessment of teratogenicity:

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

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

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

Aspiration hazard

No aspiration hazard expected.

BASF 3D Printing Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 20.04.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Ultracur3D® UV Adhesion Promoter**

(ID no. 30784642/SDS_GEN_EU/EN)

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SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:

There are no test results available for this product. Do not allow to enter drains or waterways. The mixture has been assessed following regulation (EC) No 1272/2008 and is classified for ecotoxicological properties accordingly. See sections 2 and 3 for details.

12.2. Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Biological degradability of hazardous substances mentioned in section 3:

Information on: hexamethylene diacrylate

Elimination information:

60 - 70 % TIC of the ThIC (28 d) (ISO 14593) (aerobic, activated sludge, domestic) Readily biodegradable (according to OECD criteria).

Information on: 2,2-bis(acryloyloxymethyl)butyl acrylate

Elimination information:

82 - 90 % CO₂ formation relative to the theoretical value (28 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic, activated sludge, domestic, non-adapted)

12.3. Bioaccumulative potential

Bioaccumulation potential:

No data available.

12.4. Mobility in soil

Assessment transport between environmental compartments:

Adsorption in soil: No data available.

12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6. Other adverse effects

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

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Observe national and local legal requirements.
No disposal via sewage or waste water systems.

Dispose of the substance/product as special waste in accordance with Directive 2008/98/EC.

Waste key:
08 01 11□ waste paint and varnish containing organic solvents or other hazardous substances

Contaminated packaging:
Containers which are not properly emptied must be disposed pursuant to Directive 2008/98/EC

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

SECTION 14: Transport Information

Land transport

ADR

UN number	UN1263
UN proper shipping name:	PAINT (contains ETHYLACETATE, ISOBORNYL ACRYLATE)
Transport hazard class(es):	3, EHSM
Packing group:	II
Environmental hazards:	yes
Special precautions for user:	Tunnel code: D/E SP 640 D

RID

UN number	UN1263
UN proper shipping name:	PAINT (contains ETHYLACETATE, ISOBORNYL ACRYLATE)
Transport hazard class(es):	3, EHSM
Packing group:	II
Environmental hazards:	yes
Special precautions for user:	SP 640 D

Inland waterway transport

ADN

UN number	UN1263
UN proper shipping name:	PAINT (contains ETHYLACETATE, ISOBORNYL ACRYLATE)
Transport hazard class(es):	3, EHSM
Packing group:	II
Environmental hazards:	yes
Special precautions for user:	SP 640 D

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Date / Revised: 20.04.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

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Transport in inland waterway vessel

Not evaluated

Sea transport

IMDG

UN number:	UN 1263
UN proper shipping name:	PAINT (contains ETHYLACETATE, ISOBORNYL ACRYLATE)
Transport hazard class(es):	3, EHS
Packing group:	II
Environmental hazards:	yes
	Marine pollutant: YES
Special precautions for user:	None known

Air transport

IATA/ICAO

UN number:	UN 1263
UN proper shipping name:	PAINT
Transport hazard class(es):	3
Packing group:	II
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

14.1. UN number

See corresponding entries for "UN number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

14.6. Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

BASF 3D Printing Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

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14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

SECTION 15: Regulatory Information

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

Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control)

VOC content:	10.6 %	calculated
VOC content:	111.3 g/l	calculated
VOC content:	10.5 %	organic solvents

Prohibitions, Restrictions and Authorizations

Annex XVII of Regulation (EC) No 1907/2006: Number on List: 3, 40

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU):
Listed in above regulation: Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

15.2. Chemical Safety Assessment

Chemical Safety Assessment not required

SECTION 16: Other Information

For multi-pack systems observe material safety data sheets of all components. Restricted to professional users.

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
Skin Sens.	Skin sensitization
STOT SE	Specific target organ toxicity — single exposure
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Flam. Liq.	Flammable liquids
Acute Tox.	Acute toxicity
H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

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H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H302	Harmful if swallowed.
H410	Very toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Abbreviations

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code. IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value. MARPOL = The International Convention for the Prevention of Pollution from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.