Safety data sheet

1. Identification

Product identifier

Ultracur3D® RG 9400 B FR
Recommended use: 3D Printing

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

Emergency telephone number

International emergency number:
Telephone: +49 180 2273-112

2. Hazards Identification

Classification of the substance or mixture

According to UN GHS criteria

Skin Corr./Irrit. 2
Eye Dam./Irrit. 1
Skin Sens. 1
Aquatic Acute 2
Aquatic Chronic 2

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

Label elements

Globally Harmonized System (GHS)

Pictogram:

Signal Word:
Danger

Hazard Statement:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves and eye protection or face protection.
P261	Avoid breathing mist or vapour or spray.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P264	Wash contaminated body parts thoroughly after handling.

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.
P310	Immediately call a POISON CENTER or physician.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards

According to UN GHS criteria

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.

3. Composition/Information on Ingredients

Substances

Not applicable

Mixtures

Chemical nature

Blend based on: acrylic resin, additives

Hazardous ingredients (GHS)
According to UN GHS criteria

(2,4,6-Trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-2,1-ethanediyl triacrylate

Content (W/W): >= 50 % - < 75 %	Eye Dam./Irrit. 1
CAS Number: 40220-08-4	Skin Sens. 1
EC-Number: 254-843-6	Aquatic Acute 2
	Aquatic Chronic 2
	H318, H317, H401, H411

Oxybis(methyl-2,1-ethanediyl) diacrylate

Content (W/W): >= 20 % - < 50 %	Acute Tox. 5 (oral)
CAS Number: 57472-68-1	Skin Corr./Irrit. 2
EC-Number: 260-754-3	Eye Dam./Irrit. 1
	Skin Sens. 1
	Aquatic Acute 2
	H318, H315, H303, H317, H401

7,7,9(or 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate

Content (W/W): >= 7 % - < 10 %	Skin Sens. 1B
CAS Number: 72869-86-4	Aquatic Acute 3
EC-Number: 276-957-5	Aquatic Chronic 2
	H317, H402, H411

Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate

Content (W/W): >= 0,3 % - < 1 %	Skin Sens. 1B
CAS Number: 84434-11-7	Aquatic Acute 2
EC-Number: 282-810-6	Aquatic Chronic 2
	H317, H401, H411

Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-

Content (W/W): >= 0,3 % - < 1 %	Skin Sens. 1A
CAS Number: 162881-26-7	Aquatic Chronic 4
EC-Number: 423-340-5	H317, H413
INDEX-Number: 015-189-00-5	

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

4. First-Aid Measures

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). Immediately remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

On skin contact:
Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

On contact with eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in section 2 and/or in section 11., (Further) symptoms and / or effects are not known so far

Hazards: No hazard is expected under intended use and appropriate handling.

Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

harmful vapours, carbon oxides, nitrogen oxides
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Special protective equipment:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
If exposed to fire, keep containers cool by spraying with water. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Do not breathe vapour/spray. Ensure adequate ventilation. Avoid contact with the skin, eyes and clothing. Use personal protective clothing. Information regarding personal protective measures, see section 8.

Environmental precautions
Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Methods and material for containment and cleaning up
For large amounts: Dike spillage. Pump off product.
For residues: Pick up with inert absorbent material (e.g. sand, earth etc.).
Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling
Avoid aerosol formation. Do not inhale vapours / aerosols. Avoid contact with the skin, eyes and clothing. Wear suitable protective clothing and gloves. Provide good ventilation of working area (local exhaust ventilation if necessary).

Protection against fire and explosion:
Heated containers should be cooled to prevent polymerization. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities
Segregate from foods and animal feeds.
Further information on storage conditions: Containers should be stored tightly sealed in a dry place. Keep container dry because product takes up the humidity of air. Protect against heat. Protect from the effects of light. The stabilizer is only effective in the presence of oxygen. Ensure adequate inhibitor and dissolved oxygen level.

Protect from temperatures below: 0 °C
Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.
Protect from temperatures above: 40 °C
Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

Specific end use(s)
For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection

Exposure controls

Personal protective equipment

Respiratory protection:
Suitable respiratory protection for higher concentrations or long-term effect: Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:
Chemical resistant protective gloves (EN ISO 374-1)
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)
butyl rubber (butyl) - 0.7 mm coating thickness
nitrile rubber (NBR) - 0.4 mm coating thickness
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing. Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection:
chemical-protection suit (f.e. according to EN 14605)

General safety and hygiene measures
Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. When using, do not eat, drink or smoke.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form:	liquid	
Colour:	black, opaque	
Odour:	acrylic-like	
Odour threshold:	Not determined due to potential health hazard by inhalation.	
pH value:	(20 °C) substance/mixture is non-soluble (in water)	
Freezing point:	not determined	
Boiling point:	> 100 °C	
Flash point:	> 100 °C	
Evaporation rate:	not determined	
Flammability:	not highly flammable	(derived from flash - and boiling point)
Lower explosion limit:	not determined	

Upper explosion limit:
not determined
Ignition temperature:
not determined
Vapour pressure:
not determined
Density: 1,1 g/cm3
(20 °C)
Relative vapour density (air):
not determined
Solubility in water: sparingly soluble
Solubility (qualitative) solvent(s): organic solvents
soluble
Partitioning coefficient n-octanol/water (log Kow):
not applicable for mixtures
Self ignition: not self-igniting

Thermal decomposition: > 190 °C
Viscosity, kinematic:
not determined
Explosion hazard: not explosive
Fire promoting properties: not fire-propagating

Other information

Self heating ability: not applicable, the product is a liquid

10. Stability and Reactivity

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

Corrosion to metals: Corrosive effects to metal are not anticipated.

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

Possibility of hazardous reactions
The product can polymerize if the shelf life or storage temperature are greatly exceeded. Heat develops during polymerization. Reacts with peroxides and other radical components.
The product is stabilized against spontaneous polymerization prior to despatch.

Conditions to avoid
Avoid heat. Avoid UV-light and other radiation with high energy. Avoid direct sunlight. Avoid prolonged storage. Avoid inhibitor loss.

Incompatible materials

Substances to avoid:
free radical initiators

Hazardous decomposition products

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:
Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Irritation

Assessment of irritating effects:
Skin contact causes irritation. May cause severe damage to the eyes.

Information on: Oxybis(methyl-2,1-ethanediyl) diacrylate
Experimental/calculated data:
Skin corrosion/irritation rabbit: Irritant. (OECD Guideline 404)

Information on: (2,4,6-Trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-2,1-ethanediyl triacrylate
Information on: Oxybis(methyl-2,1-ethanediyl) diacrylate
Experimental/calculated data:
Serious eye damage/irritation rabbit: irreversible damage (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Information on: Oxybis(methyl-2,1-ethanediyl) diacrylate
Experimental/calculated data:
Mouse Local Lymph Node Assay (LLNA) mouse: skin sensitizing (OECD Guideline 429)

Information on: 7,7,9(or 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate
Information on: Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate
Experimental/calculated data:
Mouse Local Lymph Node Assay (LLNA) mouse: skin sensitizing (OECD Guideline 429)

Information on: Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)-
Experimental/calculated data:
Guinea pig maximization test guinea pig: skin sensitizing (OECD Guideline 406)

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

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.

Other relevant toxicity information

The product has not been tested. The statement has been derived from the properties of the individual components.

12. Ecological Information

Toxicity

Assessment of aquatic toxicity:
Toxic to aquatic life. Harmful to aquatic life with long lasting effects.
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: (2,4,6-Trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-2,1-ethanediyl triacrylate
Assessment of aquatic toxicity:
Acutely toxic for aquatic organisms. The chronic aquatic risk classification is based on acute aquatic toxicity study data and the environmental fate properties of the product.

Information on: 7,7,9(or 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate
Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. Toxic to aquatic organisms based on long-term (chronic) toxicity study data. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Not readily biodegradable (by OECD criteria).

Information on: 7,7,9(or 7,9,9)-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate
Assessment biodegradation and elimination (H2O):
Not readily biodegradable (by OECD criteria). Moderately/partially biodegradable.

Information on: (2,4,6-Trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-2,1-ethanediyl triacrylate
Elimination information:
19,7 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) (aerobic, activated sludge, domestic, non-adapted)

Bioaccumulative potential

Assessment bioaccumulation potential:
The product has not been tested.

Mobility in soil

Assessment transport between environmental compartments:
Volatility: No data available.

Results of PBT and vPvB assessment

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

Other adverse effects

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

Additional information

Add. remarks environm. fate & pathway:
Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

Other ecotoxicological advice:
The product has been assessed on the basis of the components' available data. To some extent data gaps exist for individual components. According to our present knowledge and experience dangers which are not covered by the current labeling are not to be expected. Do not discharge product into the environment without control.

13. Disposal Considerations

Waste treatment methods

Dispose of in accordance with national, state and local regulations.
Contact specialized companies about recycling.

Contaminated packaging:
Dispose of in accordance with national, state and local regulations.
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Land transport

ADR

UN number or ID number:	UN3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((2,4,6-TRIOXO-1,3,5-TRIAZINE-1,3,5(2H,4H,6H)-TRIYL)TRI-2,1-ETHANEDIYL TRIACRYLATE, 7,7,9(OR 7,9,9)-TRIMETHYL-4,13-DIOXO-3,14-DIOXA-5,12-DIAZAHEXADECANE-1,16-DIYL BISMETHACRYLATE) STABILIZED
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

RID

UN number or ID number:	UN3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((2,4,6-TRIOXO-1,3,5-TRIAZINE-1,3,5(2H,4H,6H)-TRIYL)TRI-2,1-ETHANEDIYL TRIACRYLATE, 7,7,9(OR 7,9,9)-TRIMETHYL-4,13-DIOXO-3,14-DIOXA-5,12-DIAZAHEXADECANE-1,16-DIYL BISMETHACRYLATE) STABILIZED
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

Inland waterway transport

ADN

UN number or ID number:	UN3082

UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((2,4,6-TRIOXO-1,3,5-TRIAZINE-1,3,5(2H,4H,6H)-TRIYL)TRI-2,1-ETHANEDIYL TRIACRYLATE, 7,7,9(OR 7,9,9)-TRIMETHYL-4,13-DIOXO-3,14-DIOXA-5,12-DIAZAHEXADECANE-1,16-DIYL BISMETHACRYLATE) STABILIZED
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

Transport in inland waterway vessel
Not evaluated

Sea transport

IMDG

UN number or ID number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((2,4,6-TRIOXO-1,3,5-TRIAZINE-1,3,5(2H,4H,6H)-TRIYL)TRI-2,1-ETHANEDIYL TRIACRYLATE, 7,7,9(OR 7,9,9)-TRIMETHYL-4,13-DIOXO-3,14-DIOXA-5,12-DIAZAHEXADECANE-1,16-DIYL BISMETHACRYLATE) STABILIZED
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes Marine pollutant: YES
Special precautions for user:	EmS: F-A; S-F

Air transport

IATA/ICAO

UN number or ID number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((2,4,6-TRIOXO-1,3,5-TRIAZINE-1,3,5(2H,4H,6H)-TRIYL)TRI-2,1-ETHANEDIYL TRIACRYLATE, 7,7,9(OR 7,9,9)-TRIMETHYL-4,13-DIOXO-3,14-DIOXA-5,12-DIAZAHEXADECANE-1,16-DIYL BISMETHACRYLATE) STABILIZED
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

Further information
Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

15. Regulatory Information

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

16. Other Information

Any other intended applications should be discussed with the manufacturer.

Full text of classifications, hazard symbols and 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
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Acute Tox.	Acute toxicity
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H315	Causes skin irritation.
H303	May be harmful if swallowed.
H402	Harmful to aquatic life.
H413	May cause long lasting harmful effects to aquatic life.

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.