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Safety data sheet

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.
Date / Revised: 10.10.2018 Version: 1.0
Product: **Ultracur3D® FL 60**

(ID no. 30724490/SDS_GEN_EU/EN)
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Ultracur3D® FL 60

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

Relevant identified uses: Monomer for manufacturing of polymers, UV acrylic varnish

1.3. Details of the supplier of the safety data sheet

Company:
BASF SE
67056 Ludwigshafen
GERMANY
Regional Business Unit Dispersions and
Resins Europe

Telephone: +49 621 60-72509
E-mail address: ed-psr@basf.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

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

Acute Tox. 4 (oral)
Skin Corr./Irrit. 2

Eye Dam./Irrit. 1
Skin Sens. 1
STOT RE 2
Aquatic Chronic 3

H318, H315, H302, H317, H373, H412

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:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves and eye/face protection.
P260	Do not breathe dust/gas/mist/vapours.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P270	Do not eat, drink or smoke when using this product.
P264	Wash with plenty of water and soap 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 doctor/physician.
P303 + P352	IF ON SKIN (or hair): Wash with plenty of soap and water.
P330	Rinse mouth.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Disposal):

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

Labeling of special preparations (GHS):
EUH208: May produce an allergic reaction. Contains: 2-hydroxyethyl acrylate

2.3. Other hazards

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

No specific dangers known, if the regulations/notes for storage and handling are considered.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

Blend based on: acrylic resin

Hazardous ingredients (GHS)
according to Regulation (EC) No. 1272/2008

4-Hydroxybutyl acrylate

Content (W/W): >= 25 % - < 50 %	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

Polymeric urethane acrylate

Content (W/W): >= 15 % - < 25 %	Skin Corr./Irrit. 2
CAS Number: 52404-33-8	Eye Dam./Irrit. 2
	H319, H315

2-Propen-1-one, 1-(4-morpholinyl)-

Content (W/W): >= 7 % - < 15 %	Acute Tox. 4 (oral)
CAS Number: 5117-12-4	Eye Dam./Irrit. 1
EC-Number: 418-140-1	Skin Sens. 1
INDEX-Number: 613-222-00-3	STOT RE 2
	H318, H302, H317, H373

4-(1,1-Dimethylethyl)cyclohexyl acrylate

Content (W/W): >= 7 % - < 10 %	Skin Corr./Irrit. 2
CAS Number: 84100-23-2	Eye Dam./Irrit. 2
EC-Number: 282-104-8	Skin Sens. 1A
REACH registration number: 01-2120735441-62	STOT SE 3 (irr. to respiratory syst.)
INDEX-Number: 607-133-00-9	Aquatic Acute 1
	Aquatic Chronic 2
	M-factor acute: 1
	H319, H315, H317, H335, H411, H400

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

Content (W/W): >= 1 % - < 3 %	Skin Sens. 1B
CAS Number: 75980-60-8	Repr. 2 (fertility)
EC-Number: 278-355-8	Repr. 2 (unborn child)
	Aquatic Chronic 2
	H317, H361fd, H411

tetramethylene diacrylate

Content (W/W): >= 0 % - < 0.2 %	Acute Tox. 4 (oral)
CAS Number: 1070-70-8	Acute Tox. 3 (dermal)
EC-Number: 213-979-6	Acute Tox. 4 (Inhalation - vapour)
REACH registration number: 01-2120770248-49	Eye Dam./Irrit. 1
	Skin Sens. 1
INDEX-Number: 607-119-00-2	Skin Corr./Irrit. 1B
	Aquatic Chronic 3
	H311, H317, H314, H302 + H332, H412
	Differing classification according to current knowledge and the criteria given in Annex I of Regulation (EC) No. 1272/2008
	Acute Tox. 4 (oral)
	Acute Tox. 3 (dermal)
	Skin Corr./Irrit. 1B
	Eye Dam./Irrit. 1
	Skin Sens. 1A
	Acute Tox. 4 (Inhalation - vapour)
	Aquatic Chronic 3

2-hydroxyethyl acrylate

Content (W/W): >= 0 % - < 0.2 % CAS Number: 818-61-1 EC-Number: 212-454-9 REACH registration number: 01-2119459345-34 INDEX-Number: 607-072-00-8	Acute Tox. 4 (oral) Acute Tox. 3 (dermal) Skin Corr./Irrit. 1B Eye Dam./Irrit. 1 Skin Sens. 1 Aquatic Acute 1 Aquatic Chronic 3 H311, H302, H317, H314, H412, H400 Specific concentration limit: Skin Sens. 1: >= 0.2 %

acrylic acid

Content (W/W): >= 0 % - < 0.2 % CAS Number: 79-10-7 EC-Number: 201-177-9 REACH registration number: 01-2119452449-31	Flam. Liq. 3 Acute Tox. 4 (Inhalation - vapour) Acute Tox. 4 (oral) Acute Tox. 4 (dermal) Skin Corr./Irrit. 1A Eye Dam./Irrit. 1 Aquatic Acute 1 Aquatic Chronic 2 M-factor acute: 1 H226, H312, H332, H302, H314, H411, H400 Specific concentration limit: STOT SE 3, irr. to respiratory syst.: >= 1 %

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

Immediately remove contaminated clothing.

If inhaled:
If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

On skin contact:
Wash thoroughly with soap and water.

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:

Rinse mouth immediately and then drink plenty of water, seek medical attention.

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

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

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

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

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:
water jet

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for fire-fighters

Special protective equipment:
Wear a self-contained breathing apparatus.

Further information:
The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Breathing protection required.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For large amounts: Pump off product.
For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

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
No special measures necessary provided product is used correctly.

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

7.2. Conditions for safe storage, including any incompatibilities
Further information on storage conditions: Protect against heat. Protect from the effects of light. The stabilizer is only effective in the presence of oxygen.

Protect from temperatures below: 0 °C
Protect from temperatures above: 40 °C

7.3. 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.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

79-10-7: acrylic acid
STEL value 59 mg/m3 ; 20 ppm (OEL (EU))
indicative
TWA value 29 mg/m3 ; 10 ppm (OEL (EU))
indicative
818-61-1: 2-hydroxyethyl acrylate

8.2. 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 374)

Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN 374)
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 (cage goggles) (e.g. EN 166) and face shield.

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is required additionally to the stated personal protection equipment.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form:	liquid	
Colour:	colourless to slightly yellow	
Odour:	acrylic-like	
Odour threshold:		
	Not determined due to potential health hazard by inhalation.	
pH value:		
	not applicable	
solidification temperature:		(capilliary tube method)
	not determined	
decomposition point:	approx. 160 °C	
Flash point:	> 100 °C The statements are based on the properties of the individual components.	
Evaporation rate:		
	not determined	
Flammability:	not flammable	(derived from flash point)
Lower explosion limit:		
	For liquids not relevant for classification and labelling., The lower explosion point may be 5 - 15 °C below the flash point.	

Upper explosion limit:		
	For liquids not relevant for classification and labelling.	
Ignition temperature:		(DIN 51794)
	not determined	
Vapour pressure:		
	not determined	
Density:	1.07 g/cm3	(ISO 2811-3)
	(20 °C)	
Relative density:	1.07	
	(20 °C)	
Relative vapour density (air):		
	not determined	
Solubility in water:	not determined	
Solubility (qualitative) solvent(s):	organic solvents, alcohols	
	soluble	
Partitioning coefficient n-octanol/water (log Kow):		
	not applicable for mixtures	
Self ignition:	not self-igniting	
Thermal decomposition:	160 °C, < 300 kJ/kg, (DSC (DIN 51007))	
Viscosity, dynamic:	520 mPa.s	
	(30 °C)	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	

9.2. Other information

Hygroscopy:	Non-hygroscopic
Surface tension:	
	No data available.
Grain size distribution:	The substance / product is marketed or used in a non solid or granular form.

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

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.

10.4. Conditions to avoid

Avoid UV-light and other radiation with high energy. Avoid direct sunlight. See MSDS section 7 - Handling and storage.

10.5. Incompatible materials

Substances to avoid:
free radical initiators

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Experimental/calculated data:
ATE rat (oral): 300 - 2,000 mg/kg
The product has not been tested. The statement has been derived from the properties of the individual components.

LC50 rat (by inhalation): 4 h
not determined

ATE rat (dermal): > 2,000 mg/kg
The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation

Experimental/calculated data:
Skin corrosion/irritation rabbit: Irritant.
The product has not been tested. The statement has been derived from the properties of the individual components.

Serious eye damage/irritation rabbit: irreversible damage (Draize test)
The product has not been tested. The statement has been derived from the properties of the individual components.

Respiratory/Skin sensitization

Experimental/calculated data:
Mouse Local Lymph Node Assay (LLNA) mouse: skin sensitizing
The product has not been tested. The statement has been derived from the properties of the individual components.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on the ingredients, there is no suspicion of a mutagenic effect.

Carcinogenicity

Assessment of carcinogenicity:
The whole of the information assessable provides no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on the ingredients, there is a suspicion of a toxic effect on reproduction.

Information on: diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide
Assessment of reproduction toxicity:
The results of animal studies suggest a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:
Based on the ingredients, there is a suspicion of a teratogenic effect.

Information on: diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide
Assessment of teratogenicity:
At high doses there are indications of a developmental effect.

Specific target organ toxicity (single exposure)

No data available.

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

Assessment of repeated dose toxicity:
Repeated oral exposure may affect certain organs. The product has not been tested. The statement has been derived from the properties of the individual components.

Aspiration hazard

No aspiration hazard expected.

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:

Acutely toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment. The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish:
LC50 (96 h) > 1 - 10 mg/l, Fish
The product has not been tested. The statement has been derived from the properties of the individual components.

Aquatic invertebrates:
LC50 (48 h) > 1 - 10 mg/l, daphnia
The product has not been tested. The statement has been derived from the properties of the individual components.

Aquatic plants:
EC50 (72 h) > 1 - 10 mg/l, algae
The product has not been tested. The statement has been derived from the properties of the individual components.

Microorganisms/Effect on activated sludge:
EC50 (0.5 h), bacteria
not determined

Chronic toxicity to fish:
No data available.

Chronic toxicity to aquatic invertebrates:
No data available.

Assessment of terrestrial toxicity:
No data available concerning terrestrial toxicity.

12.2. Persistence and degradability

Assessment biodegradation and elimination (H2O):
Moderately/partially eliminated from water.
The product has not been tested. The statement has been derived from the properties of the individual components.

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:
The product has not been tested.

12.4. Mobility in soil

Assessment transport between environmental compartments:
Volatility: 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 Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

12.7. 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:
Do not discharge product into the environment without control.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:
Uncontaminated packaging can be re-used.
Packs that cannot be cleaned should be disposed of in the same manner as the contents.

SECTION 14: Transport Information

Land transport

ADR

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

RID

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Inland waterway transport

ADN

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user:	None known

Transport in inland waterway vessel

Not evaluated

Sea transport

IMDG

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Air transport

IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable

Environmental hazards:	Not applicable
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.

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

Prohibitions, Restrictions and Authorizations

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

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

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15.2. Chemical Safety Assessment

Chemical Safety Assessment not yet performed due to registration timelines

SECTION 16: Other Information

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

Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
Skin Sens.	Skin sensitization
STOT RE	Specific target organ toxicity — repeated exposure
Aquatic Chronic	Hazardous to the aquatic environment - chronic
STOT SE	Specific target organ toxicity — single exposure
Aquatic Acute	Hazardous to the aquatic environment - acute
Repr.	Reproductive toxicity
Flam. Liq.	Flammable liquids
H318	Causes serious eye damage.
H315	Causes skin irritation.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
H319	Causes serious eye irritation.
H373	May cause damage to organs () through prolonged or repeated exposure.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H302 + H332	Harmful if swallowed or if inhaled
H226	Flammable liquid and vapour.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.

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.