

# Safety Data Sheet

## Ultracur3D® RG 1100 B

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### 1. Identification

#### Product identifier used on the label

## Ultracur3D® RG 1100 B

#### Recommended use of the chemical and restriction on use

Recommended use\*: Stereolithography; Monomer in ultraviolet ink jet application; In an enclosed system

Unsuitable for use: Any other use is not compliant.

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

#### Details of the supplier of the safety data sheet

##### Company:

BASF CORPORATION  
100 Park Avenue  
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

#### Emergency telephone number

##### 24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300  
BASF HOTLINE: 1-800-832-HELP (4357)

#### Other means of identification

Chemical family: Blend based on: acrylic resin

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### 2. Hazards Identification

**According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

#### Classification of the product

Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	1	Serious eye damage/eye irritation
Skin Sens.	1	Skin sensitization
Repr.	1B (fertility)	Reproductive toxicity
Repr.	1B (unborn child)	Reproductive toxicity

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STOT SE	3 (irritating to respiratory system)	Specific target organ toxicity — single exposure
STOT RE	2 (oral)	Specific target organ toxicity — repeated exposure
Aquatic Acute	2	Hazardous to the aquatic environment - acute
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic

### Label elements

Pictogram:



Signal Word:  
Danger

Hazard Statement:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated oral exposure.
H360	May damage fertility. May damage the unborn child.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P273	Avoid release to the environment.
P271	Use only outdoors or in a well-ventilated area.
P260	Do not breathe dust/gas/mist/vapours.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
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.
P308 + P313	IF exposed or concerned: Get medical attention.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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 (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Precautionary Statements (Disposal):

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P501 Dispose of contents/container in accordance with local regulations.

### 3. Composition / Information on Ingredients

#### According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

##### Acrylate derivative

CAS Number: Trade Secret  
Content (W/W):  $\geq 50.0$  -  $< 75.0\%$   
Synonym: No data available.

##### Urethane-acrylate Polymer

CAS Number: Trade Secret  
Content (W/W):  $\geq 15.0$  -  $< 25.0\%$   
Synonym: No data available.

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

CAS Number: 5117-12-4  
Content (W/W):  $\geq 15.0$  -  $< 20.0\%$   
Synonym: No data available.

##### Phenyl acrylate

CAS Number: Trade Secret  
Content (W/W):  $\geq 0.3$  -  $< 3.0\%$   
Synonym: No data available.

##### Proprietary acrylate

CAS Number: Trade Secret  
Content (W/W):  $> 0.0$  -  $< 3.0\%$   
Synonym: No data available.

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

CAS Number: 75980-60-8  
Content (W/W):  $\geq 0.3$  -  $< 1.0\%$   
Synonym: Diphenyl(2,4,6-trimethylbenzoyl)phosphineoxide

##### acrylic acid

CAS Number: 79-10-7  
Content (W/W):  $\geq 0.1$  -  $< 0.2\%$   
Synonym: 2-Propenoic acid; Acrylic acid

##### carbon black

CAS Number: 1333-86-4  
Content (W/W):  $\geq 0.0$  -  $< 0.2\%$   
Synonym: C.I. 77266

### 4. First-Aid Measures

#### Description of first aid measures

##### General advice:

Remove contaminated clothing.

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### If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

### If on skin:

Wash thoroughly with soap and water

### If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Immediate medical attention required.

### If swallowed:

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

## Most important symptoms and effects, both acute and delayed

Symptoms: 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.

*Information on: Acrylate derivative*

*Symptoms: Overexposure may cause:, Eye irritation, skin irritation, erythema, allergic contact dermatitis, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps, Inhalation may provoke the following symptoms:, irritation of respiratory tract, coughing*

*Information on: Phenyl acrylate*

*Symptoms: Overexposure may cause:, Eye irritation, skin irritation, erythema, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps*

*Information on: Proprietary acrylate*

*Symptoms: Overexposure may cause:, corneal injury, skin corrosion, severe pain, coughing, respiratory disorders, dyspnea, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps*

*Information on: diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide*

*Symptoms: Overexposure may cause:, allergic contact dermatitis, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps*

## Indication of any immediate medical attention and special treatment needed

### Note to physician

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

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## 5. Fire-Fighting Measures

### Extinguishing media

Suitable extinguishing media:  
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:  
water jet

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### Special hazards arising from the substance or mixture

Hazards during fire-fighting:

harmful vapours, carbon oxides, nitrogen oxides

Generation of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

### Advice for fire-fighters

Protective equipment for fire-fighting:

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.

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## 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.

### 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.

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## 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.

Storage stability:

Storage temperature: -15 - 40 °C

Protect from temperatures below: -15 °C

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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. If transport time lasts more than 4 days the packed product must be protected against exceeding the indicated temperature.

### 8. Exposure Controls/Personal Protection

#### Components with occupational exposure limits

acrylic acid	ACGIH, US:	TWA value 2 ppm ;
	ACGIH, US:	Skin Designation ; Danger of cutaneous absorption
carbon black	ACGIH, US:	TWA value 3 mg/m3 Inhalable fraction ;
	OSHA Z1:	PEL 3.5 mg/m3 ;

#### **Advice on system design:**

Ensure adequate ventilation.

#### **Personal protective equipment**

##### **Respiratory protection:**

Persons likely to be exposed via inhalation, where engineering control and administrative control measures are inadequate, use a NIOSH certified (or equivalent) respirator with a minimum APF of 50.

Observe OSHA regulations for respirator use (29 CFR 1910.134).

##### **Hand protection:**

Wear impervious gloves., nitrile rubber (NBR) - 0.4 mm coating thickness

##### **Eye protection:**

Tightly fitting safety goggles (chemical goggles).

##### **Body protection:**

Impermeable protective clothing

##### **General safety and hygiene measures:**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with the skin, eyes and clothing. Avoid inhalation. Wearing of closed work clothing is required additionally to the stated personal protection equipment. 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

Form:	liquid
Odour:	acrylic-like
Odour threshold:	not determined
Colour:	black, opaque

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pH value:	substance/mixture is non-soluble (in water)	
Melting point:	No data available.	
Boiling point:	> 150 °C ( 1,013 hPa) The substance / product decomposes. Information based on the main component/s.	(Directive 84/449/EEC, A.2)
Flash point:	> 95 °C	
Flammability:	not highly flammable	
Lower explosion limit:	not determined	
Upper explosion limit:	not determined	
Autoignition:	not determined	
Vapour pressure:	not determined	
Density:	1 g/cm <sup>3</sup> ( 20 °C)	
Relative density:	1.09 ( 20 °C)	
Vapour density:	not determined	
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures	
Self-ignition temperature:	not self-igniting	
Thermal decomposition:	187.89 °C, 440.22 J/g	
Viscosity, dynamic:	421 mPa.s ( 30 °C)	
Viscosity, kinematic:	not determined	
Particle size:	The substance / product is marketed or used in a non solid or granular form.	
Solubility in water:	not determined	
Solubility (qualitative):	soluble solvent(s): organic solvents,	
Evaporation rate:	not determined, Value can be approximated from Henry's Law Constant or vapor pressure.	

## 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.

Oxidizing properties:  
not fire-propagating

### Chemical stability

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

### Possibility of hazardous reactions

The product is stabilized against spontaneous polymerization prior to despatch. 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.

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### 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

free radical initiators

### Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

187.89 °C

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## 11. Toxicological information

### Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

### Acute Toxicity/Effects

#### Acute toxicity

Assessment of acute toxicity: May be harmful if swallowed in large quantities. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

#### Oral

Type of value: ATE

Value: 3,190 mg/kg

*Information on: 2-Propen-1-one, 1-(4-morpholinyl)-*

*Type of value: LD50*

*Species: rat (male/female)*

*Value: 588 mg/kg (OECD Guideline 401)*

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#### Inhalation

Type of value: ATE

Value: > 20 mg/l

Determined for vapor

Type of value: ATE

Value: > 5 mg/l

Determined for mist

#### Dermal

Type of value: ATE

Value: > 5,000 mg/kg



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### Assessment other acute effects

Assessment of STOT single:  
Causes temporary irritation of the respiratory tract.

### Irritation / corrosion

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

*Information on: 2-Propen-1-one, 1-(4-morpholinyl)-*

*Assessment of irritating effects: May cause severe damage to the eyes. EU-classification Not irritating to the skin.*

*Information on: Acrylate derivative*

*Assessment of irritating effects: The European Union (EU) has classified the substance as "irritating to skin and eyes".*

*Information on: Proprietary acrylate*

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

*Causes temporary irritation of the respiratory tract. Eye contact causes irritation. Skin contact causes irritation.*

### Sensitization

Assessment of sensitization: Sensitization after skin contact possible.

*Information on: Acrylate derivative*

*Assessment of sensitization:  
Sensitization after skin contact possible.*

*Information on: 2-Propen-1-one, 1-(4-morpholinyl)-*

*Assessment of sensitization:  
Sensitization after skin contact possible. EU-classification*

*Information on: diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide*

*Assessment of sensitization:  
Caused skin sensitization in animal studies.*

*Information on: Phenyl acrylate*

*Assessment of sensitization:  
Caused skin sensitization in animal studies.*

*Information on: diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide*

*Mouse Local Lymph Node Assay (LLNA)*

*Species: mouse*

*Result: skin sensitizing*

*Method: OECD Guideline 429*

### Aspiration Hazard

No aspiration hazard expected.

### **Chronic Toxicity/Effects**

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### Repeated dose toxicity

Assessment of repeated dose toxicity: Repeated exposure may affect certain organs.

*Information on: 2-Propen-1-one, 1-(4-morpholinyl)-*

*Assessment of repeated dose toxicity: Repeated exposure may affect certain organs. EU-classification*

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### Genetic toxicity

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

### Carcinogenicity

Assessment of carcinogenicity: Contains a compound classified as IARC Group 2B (possibly carcinogenic to humans). Based on available data, the classification criteria are not met.

*Information on: carbon black*

*Assessment of carcinogenicity: IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). In long-term animal studies in which the substance was given by inhalation in high concentrations, a carcinogenic effect was observed. A clear indication of an increased risk of cancer in humans has so far not been shown. No carcinogenic potential can be deduced from other studies with rats and mice.*

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### Reproductive toxicity

Assessment of reproduction toxicity: May impair fertility. The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide*

*Assessment of reproduction toxicity: Causes impairment of fertility in laboratory animals.*

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### Teratogenicity

Assessment of teratogenicity: May cause harm to the unborn child. The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide*

*Assessment of teratogenicity: The substance caused malformations/developmental toxicity in laboratory animals.*

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### Other Information

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

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## 12. Ecological Information

### **Toxicity**

Aquatic toxicity

Assessment of aquatic toxicity:

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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.

### Persistence and degradability

#### Assessment biodegradation and elimination (H2O)

Not readily biodegradable (by OECD criteria). The product has not been tested. The statement has been derived from the properties of the individual components.

### Bioaccumulative potential

#### Assessment bioaccumulation potential

The product has not been tested.

### Mobility in soil

#### Assessment transport between environmental compartments

No data available.

### 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.

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## 13. Disposal considerations

### Waste disposal of substance:

Dispose of in accordance with national, state and local regulations. Do not discharge into drains/surface waters/groundwater.

### Container disposal:

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.

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## 14. Transport Information

### Land transport

USDOT

Not classified as a dangerous good under transport regulations

### Sea transport

IMDG

Hazard class:	9
Packing group:	III
ID number:	UN 3082
Hazard label:	9, EHSM
Marine pollutant:	YES

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Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. (contains DIMETHYLETHYLCYCLOHEXYL ACRYLATE,  
TRICYCLODECANE DIMETHANOL DIACRYLATE) STABILIZED

### Air transport

IATA/ICAO

Hazard class: 9

Packing group: III

ID number: UN 3082

Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. (contains DIMETHYLETHYLCYCLOHEXYL ACRYLATE,  
TRICYCLODECANE DIMETHANOL DIACRYLATE) STABILIZED

### 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

### Federal Regulations

#### Registration status:

Chemical TSCA, US released; restriction on use / listed

TSCA §5. Based on EPA's assessment that includes analogue data, a substance in this product has the potential to cause:

Carcinogenicity;

Genetic toxicity;

Specific target organ toxicity.

Hazard(s) not classifiable under GHS criteria.

This product contains a substance (CASRN 5117-12-4) which may cause internal organ and reproductive effects.

When using this product, use skin protection.

TSCA § 5(a) final Significant New Use Restriction (SNUR)

A 12(b) export notification is required for substance(s) in this product subject to SNUR restrictions.

40 CFR 721.5185

**EPCRA 311/312 (Hazard categories):** Refer to SDS section 2 for GHS hazard classes applicable for this product.

### State regulations

#### State RTK

NJ

PA

#### CAS Number

1333-86-4

1333-86-4

#### Chemical name

carbon black

carbon black

**Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:**

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**WARNING:** This product can expose you to chemicals including ETHYLENE OXIDE, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**NFPA Hazard codes:**

Health: 3      Fire: 1      Reactivity: 0      Special:

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### 16. Other Information

**SDS Prepared by:**

BASF NA Product Regulations  
SDS Prepared on: 2024/08/23

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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