



# Bilby 3D

## **MATERIAL DATA SAFETY SHEET**

Issued in Australia by Bilby 3D Pty Ltd.

The attached Material Data Safety Sheet has been prepared by the manufacturer outside Australia.

In accordance with Australia WHS regulations the following Australian contact details apply

### **Section 1: AUSTRALIAN COMPANY DETAILS**

In Australia the product is imported and distributed by:  
Bilby 3D Pty Ltd

Mailing Address :

Kingsgrove Business Centre, 7/192 Kingsgrove Rd, Kingsgrove NSW 2208

Head Office Address :

Kingsgrove Business Centre, 7/192 Kingsgrove Rd, Kingsgrove NSW 2208

Contact Phone: 1800 847 333

### **Section 2: AUSTRALIAN EMERGENCY CONTACT**

#### **Emergency Contact**

In the event of an emergency please contact:

Poisons Information Centre 24 hour Telephone Advice Line on 13 11 26

### **Section 3: AUSTRALIAN ISSUE DATA**

**Date of Issue** : 1 March 2020

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

#### 1.1. Product identifier

|                 |                                  |
|-----------------|----------------------------------|
| Product form    | : Mixture                        |
| Generic name    | : Hard Black                     |
| Type of product | : Photocentric Daylight 3D Resin |
| Synonyms        | : Magna Hard Black               |
| Product group   | : Trade product                  |

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

##### 1.2.1. Relevant identified uses

|                              |  |
|------------------------------|--|
| Main use category            | : Industrial use, Professional use, Consumer use |
| Use of the substance/mixture | : For use in Photocentric Daylight Printers      |

##### 1.2.2. Uses advised against

No additional information available

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

##### Supplier

Photocentric Ltd, UK  
Cambridge House  
Oxney Road  
Peterborough, PE1 5YW - United Kingdom  
T +44 (0)1733349937  
[info@photocentric.co.uk](mailto:info@photocentric.co.uk) - <https://photocentricgroup.com/>

#### 1.4. Emergency telephone number

|                  |  |
|------------------|--|
| Emergency number | : +44 (0) 1733 349937 (Office hours only)<br>For Hazardous Materials [or Dangerous Goods] Incident<br>Spill, Leak, Fire, Exposure, or Accident<br>Call CHEMTREC<br>1-800-424-9300 / +1 703-527-3887 CCN 992854 |
|------------------|--|

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

|   |                  |
|---|------------------|
| Skin sensitisation, Category 1                                    | H317             |
| Hazardous to the aquatic environment — Chronic Hazard, Category 2 | H411             |
| Full text of H statements   | : see section 16 |

##### Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Warning

Contains

: Proprietary (Oligomer); Proprietary (Dimethacrylate); Proprietary (Crosslinking agent); Proprietary (Crosslinking agent); Proprietary (Photoinitiator)

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|                                |  |
|--------------------------------|--|
| Hazard statements (CLP)        | : H317 - May cause an allergic skin reaction.<br>H411 - Toxic to aquatic life with long lasting effects.   |
| Precautionary statements (CLP) | : P261 - Avoid breathing fume, mist, spray, vapours.vapours, fume, spray.<br>P273 - Avoid release to the environment.<br>P280 - Wear eye protection, protective clothing, protective gloves.<br>P302+P352 - IF ON SKIN: Wash with plenty of soap and water.<br>P321 - Specific treatment (see supplemental first aid instruction on this label).<br>P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.<br>P362+P364 - Take off contaminated clothing and wash it before reuse.<br>P391 - Collect spillage. |

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name                             | %           | Classification according to Regulation (EC) No. 1272/2008 [CLP]  |
|----------------------------------|-------------|--|
| Proprietary (Oligomer)           | ≥ 25 – < 50 | Skin Sens. 1, H317<br>Aquatic Chronic 2, H411  |
| Proprietary (Dimethacrylate)     | ≥ 25 – < 50 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>STOT SE 3, H335                             |
| Proprietary (Dimethacrylate)     | ≥ 10 – < 15 | Aquatic Chronic 3, H412  |
| Proprietary (Diacrylate)         | ≥ 0.1 – < 1 | Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410   |
| Proprietary (Crosslinking agent) | ≥ 0.1 – < 1 | Eye Irrit. 2, H319<br>Skin Sens. 1, H317   |
| Proprietary (Photoinitiator)     | ≥ 0.1 – < 1 | Flam. Sol. 1, H228<br>Repr. 2, H361f<br>STOT RE 2, H373<br>Aquatic Chronic 2, H411                             |
| Proprietary (Photoinitiator)     | ≥ 0.1 – < 1 | Skin Sens. 1, H317<br>Aquatic Chronic 4, H413  |
| Proprietary (Crosslinking agent) | < 1         | Acute Tox. 4 (Oral), H302<br>STOT RE 2, H373<br>Aquatic Acute 1, H400 (M=10)<br>Aquatic Chronic 1, H410 (M=10) |

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                                     |  |
|-------------------------------------|--|
| First-aid measures general          | : Call a poison center or a doctor if you feel unwell. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.   |

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|                                       |  |
|---------------------------------------|--|
| First-aid measures after skin contact | : If skin irritation or rash occurs: Get medical advice/attention. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water. |
| First-aid measures after eye contact  | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.                                   |
| First-aid measures after ingestion    | : Provide rest, warmth and fresh air. Immediately rinse mouth and drink plenty of water (200-300 ml). . Call a poison center or a doctor if you feel unwell.   |

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

|                                     |  |
|-------------------------------------|--|
| Symptoms/effects after inhalation   | : Inhalation may cause irritation (cough, short breathing, difficulty in breathing). May cause respiratory irritation. |
| Symptoms/effects after skin contact | : Irritation. May cause an allergic skin reaction.   |
| Symptoms/effects after eye contact  | : Causes serious eye damage.   |
| Symptoms/effects after ingestion    | : May be harmful if swallowed. May cause irritation to the digestive tract.  |

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

Treat symptomatically. In all cases of doubt, or when symptoms persist, seek medical attention. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                                |  |
|--------------------------------|--|
| Suitable extinguishing media   | : Carbon dioxide. Dry powder. Foam. Water spray. |
| Unsuitable extinguishing media | : Do not use a heavy water stream.               |

### 5.2. Special hazards arising from the substance or mixture

|  |                                |
|--|--------------------------------|
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |
|--|--------------------------------|

### 5.3. Advice for firefighters

|                                |  |
|--------------------------------|--|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
| Other information              | : High temperature decomposition products are harmful by inhalation.   |

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

|                      |   |
|----------------------|---|
| Protective equipment | : Wear recommended personal protective equipment.   |
| Emergency procedures | : Only qualified personnel equipped with suitable protective equipment may intervene. See section 8 of the SDS for more information on personal protective equipment. Avoid breathing fume, mist, spray, vapours. |

#### 6.1.2. For emergency responders

|                      |  |
|----------------------|--|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Protective gloves. Safety glasses. For further information refer to section 8: "Exposure controls/personal protection". |
| Emergency procedures | : Evacuate unnecessary personnel. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Ventilate area.  |

### 6.2. Environmental precautions

Avoid release to the environment. Prevent liquid from entering sewers, watercourses, underground or low areas.

### 6.3. Methods and material for containment and cleaning up

|                 |   |
|-----------------|---|
| For containment | : For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Collect spillage. |
|-----------------|---|

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- Methods for cleaning up : Take up liquid spill into absorbent material. This material and its container must be disposed of in a safe way, and as per local legislation.
- Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.
- Precautions for safe handling : Use only outdoors or in a well-ventilated area. Avoid contact with skin, eyes and clothing. Avoid breathing fume, mist, spray, vapours. Wear personal protective equipment.
- Handling temperature : < 40 °C
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wear personal protective equipment. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Keep cool.
- Incompatible materials : Direct sunlight.
- Storage temperature : < 10<t>50□C

### 7.3. Specific end use(s)

The identified uses for this product are detailed in section 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### Personal protective equipment:

Safety glasses. Wear recommended personal protective equipment. Gloves.

#### Materials for protective clothing:

Wear suitable protective clothing and gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

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### Personal protective equipment symbol(s):



### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|   |                         |
|---|-------------------------|
| Physical state                                  | : Liquid                |
| Appearance                                      | : Liquid.               |
| Colour  | : Black.                |
| Odour   | : characteristic.       |
| Odour threshold                                 | : No data available     |
| pH  | : No data available     |
| Relative evaporation rate (butylacetate=1)      | : No data available     |
| Melting point                                   | : Not applicable        |
| Freezing point                                  | : No data available     |
| Boiling point                                   | : No data available     |
| Flash point                                     | : No data available     |
| Auto-ignition temperature                       | : No data available     |
| Decomposition temperature                       | : No data available     |
| Flammability (solid, gas)                       | : Not applicable        |
| Vapour pressure                                 | : No data available     |
| Relative vapour density at 20 °C                | : No data available     |
| Relative density                                | : No data available     |
| Solubility                                      | : No data available     |
| Partition coefficient n-octanol/water (Log Pow) | : No data available     |
| Viscosity, kinematic                            | : No data available     |
| Viscosity, dynamic                              | : 500 – 600 mPa·s @25°C |
| Explosive properties                            | : No data available     |
| Oxidising properties                            | : No data available     |
| Explosive limits                                | : No data available     |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions of use.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

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### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                             |                  |
|-----------------------------|------------------|
| Acute toxicity (oral)       | : Not classified |
| Acute toxicity (dermal)     | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

#### Proprietary (Oligomer)

|               |  |
|---------------|--|
| LD50 oral rat | > 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity) |
|---------------|--|

#### Proprietary (Dimethacrylate)

|                 |   |
|-----------------|---|
| LD50 oral rat   | > 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method) |
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))  |

#### Proprietary (Dimethacrylate)

|               |                                  |
|---------------|----------------------------------|
| LD50 oral rat | 10837 mg/kg Source: NLM, THOMSON |
|---------------|----------------------------------|

#### Proprietary (Crosslinking agent)

|                    |  |
|--------------------|--|
| LD50 oral rat      | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EU Method B.1 (Acute Toxicity (Oral)) |
| LD50 dermal rabbit | > 13200 mg/kg bodyweight Animal: rabbit  |

#### Proprietary (Crosslinking agent)

|                       |  |
|-----------------------|--|
| LD50 oral rat         | 1000 – 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)   |
| LC50 Inhalation - Rat | > 3.363 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity) |

#### Proprietary (Photoinitiator)

|                 |  |
|-----------------|--|
| LD50 oral rat   | > 2000 mg/kg bodyweight Animal: rat, Guideline: other:OECD GUIDELINE No.401 (CORRESPONDING TO 84/449/EEC, B.1) |
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: other:OECD GUIDELINE No.402 (CORRESPONDING TO 84/449/EEC, B.3) |

#### Proprietary (Photoinitiator)

|                 |   |
|-----------------|---|
| LD50 oral rat   | > 2000 mg/kg bodyweight Animal: rat, Guideline: EU Method B.1 (Acute Toxicity (Oral)) |
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: other:92/69/EEC                       |

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| Proprietary (Diacrylate) |   |
|--------------------------|---|
| LD50 oral rat            | > 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method) |
| LD50 dermal rat          | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))  |

|                                   |  |
|-----------------------------------|--|
| Skin corrosion/irritation         | : Not classified                       |
| Serious eye damage/irritation     | : Not classified                       |
| Respiratory or skin sensitisation | : May cause an allergic skin reaction. |
| Germ cell mutagenicity            | : Not classified                       |
| Carcinogenicity                   | : Not classified                       |
| Reproductive toxicity             | : Not classified                       |
| STOT-single exposure              | : Not classified                       |
| STOT-repeated exposure            | : Not classified                       |

| Proprietary (Dimethacrylate) |   |
|------------------------------|---|
| NOAEL (oral, rat, 90 days)   | 300 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents), Guideline: EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral)) |

| Proprietary (Dimethacrylate) |  |
|------------------------------|--|
| NOAEL (oral, rat, 90 days)   | 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |

| Proprietary (Crosslinking agent) |   |
|----------------------------------|---|
| NOAEL (oral, rat, 90 days)       | 250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |

| Proprietary (Crosslinking agent) |   |
|----------------------------------|---|
| NOAEL (oral, rat, 90 days)       | ≥ 100 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |

| Proprietary (Photoinitiator) |   |
|------------------------------|---|
| NOAEL (oral, rat, 90 days)   | < 10.8 mg/kg bodyweight Animal: other:ALBINO RAT/Tif: RAIf (SPF) HYBRIDIS OF RII/1×RII/2, Guideline: other:EEC Directive, B.7 |

| Proprietary (Photoinitiator) |   |
|------------------------------|---|
| NOAEL (oral, rat, 90 days)   | > 1000 mg/kg bodyweight Animal: rat, Guideline: other:92/69/eec |

| Proprietary (Diacrylate)   |  |
|----------------------------|--|
| NOAEL (oral, rat, 90 days) | 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents), Guideline: EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral)) |

|   |  |
|---|--|
| Aspiration hazard                                   | : Not classified   |
| Potential adverse human health effects and symptoms | : Harmful if swallowed. Irritation: severely irritant to eyes. Irritation: may cause irritation to the respiratory system. |



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Other information : Likely routes of exposure: skin and eye.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.  
Hazardous to the aquatic environment, short-term (acute) : Not classified  
Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.  
Not rapidly degradable

| Proprietary (Oligomer) |   |
|------------------------|---|
| LC50 fish 1            | 10.1 mg/l   |
| EC50 Daphnia 1         | > 1200 µg/l Test organisms (species): Daphnia magna |
| EC50 72h algae (1)     | > 0.68 mg/l   |

| Proprietary (Dimethacrylate) |  |
|------------------------------|--|
| LC50 fish 1                  | > 100 mg/l LL <sub>50</sub> , 96 hours: > 100 mg/l, Brachydanio rerio (Zebra Fish) |
| EC50 Daphnia 1               | > 100 mg/l EC <sub>50</sub> , 48 hours: > 100 mg/l, Daphnia magna                  |
| EC50 72h algae (1)           | EL50, 72 hours: > 100 mg/l, Pseudokirchneriella subcapitata                        |

| Proprietary (Dimethacrylate) |  |
|------------------------------|--|
| LC50 fish 1                  | 16.4 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)   |
| EC50 72h algae (1)           | > 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| EC50 72h algae (2)           | 72.8 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)  |
| LOEC (chronic)               | 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'  |
| NOEC (chronic)               | 32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'   |

| Proprietary (Crosslinking agent) |   |
|----------------------------------|---|
| LC50 fish 1                      | 1.95 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)                  |
| EC50 Daphnia 1                   | 70.7 mg/l Test organisms (species): Daphnia magna   |
| EC50 72h algae (1)               | 2.2 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |

| Proprietary (Crosslinking agent) |  |
|----------------------------------|--|
| LC50 fish 1                      | 0.034 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)              |
| EC50 Daphnia 1                   | > 0.35 mg/l Test organisms (species): Daphnia magna  |
| EC50 72h algae (1)               | > 0.12 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |

| Proprietary (Photoinitiator)   |  |
|--------------------------------|--|
| LC50 fish 1                    | > 100 mg/l Test organisms (species): other:ZEBRA FISH          |
| EC50 other aquatic organisms 1 | 2.15 mg/l Test organisms (species): other aquatic crustacea:DM |

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| Proprietary (Photoinitiator) |  |
|------------------------------|--|
| LC50 fish 1                  | > 0.09 mg/l Test organisms (species): other:Zebra Fish Brachydanio rerio                               |
| EC50 Daphnia 1               | > 1.175 mg/l Test organisms (species): other aquatic crustacea:Daphnia Magna                           |
| EC50 72h algae (1)           | > 0.26 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |

| Proprietary (Diacrylate) |   |
|--------------------------|---|
| EC50 Daphnia 1           | 2.36 mg/l Test organisms (species): Daphnia magna   |
| EC50 72h algae (1)       | 1.6 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)  |
| EC50 72h algae (2)       | 0.71 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |

### 12.2. Persistence and degradability

| Proprietary (Oligomer)        |                  |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

| Proprietary (Dimethacrylate)  |  |
|-------------------------------|--|
| Persistence and degradability | The substance is readily biodegradable. Degradation (85%) 29 days OCED 301B. |

| Proprietary (Photoinitiator)  |   |
|-------------------------------|---|
| Persistence and degradability | Biodegradability in water: no data available. |

### 12.3. Bioaccumulative potential

| Proprietary (Oligomer)                          |                                    |
|---|------------------------------------|
| Partition coefficient n-octanol/water (Log Pow) | 3.39                               |
| Bioaccumulative potential                       | No bioaccumulation data available. |

| Proprietary (Dimethacrylate)                    |                               |
|---|-------------------------------|
| Partition coefficient n-octanol/water (Log Kow) | 5.3 – 5.62 log Kow: 5.30~5.62 |

| Proprietary (Dimethacrylate)                    |                         |
|---|-------------------------|
| Partition coefficient n-octanol/water (Log Pow) | 1.88 Source: ChemIDplus |

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

| Component                           |  |
|-------------------------------------|--|
| Proprietary (Oligomer) (72869-86-4) | PBT: not relevant – no registration required |

### 12.6. Other adverse effects

No additional information available

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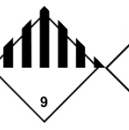
### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

|  |  |
|--|--|
| Waste treatment methods                    | : Dispose of contents/container in accordance with licensed collector's sorting instructions.  |
| Sewage disposal recommendations            | : Disposal must be done according to official regulations.   |
| Product/Packaging disposal recommendations | : Avoid release to the environment. Comply with applicable regulations for solid waste disposal. Dispose in a safe manner in accordance with local/national regulations. |
| Additional information                     | : Clean up even minor leaks or spills if possible without unnecessary risk. Consult an expert on waste disposal or treatment.  |
| Ecology - waste materials                  | : Avoid release to the environment.  |

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

| ADR   | IMDG   | IATA  | ADN  | RID   |
|---|--|---|--|---|
| <b>14.1. UN number</b>  |  |   |  |   |
| UN 3082   | UN 3082  | UN 3082   | UN 3082  | UN 3082   |
| <b>14.2. UN proper shipping name</b>  |  |   |  |   |
| ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hard Black)                      | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hard Black)                                   | Environmentally hazardous substance, liquid, n.o.s. (Hard Black)                    | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hard Black)                     | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hard Black)                      |
| <b>Transport document description</b>   |  |   |  |   |
| UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hard Black), 9, III, (-) | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hard Black), 9, III, MARINE POLLUTANT | UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Hard Black), 9, III    | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hard Black), 9, III     | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hard Black), 9, III      |
| <b>14.3. Transport hazard class(es)</b>   |  |   |  |   |
| 9   | 9  | 9   | 9  | 9   |
|    |                 |  |  |  |
| <b>14.4. Packing group</b>  |  |   |  |   |
| III   | III  | III   | III  | III   |
| <b>14.5. Environmental hazards</b>  |  |   |  |   |
| Dangerous for the environment : Yes   | Dangerous for the environment : Yes<br>Marine pollutant : Yes                                      | Dangerous for the environment : Yes   | Dangerous for the environment : Yes  | Dangerous for the environment : Yes   |
| No supplementary information available  |  |   |  |   |

#### 14.6. Special precautions for user

##### Overland transport

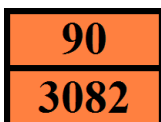
|                                  |                           |
|----------------------------------|---------------------------|
| Classification code (ADR)        | : M6                      |
| Special provisions (ADR)         | : 274, 335, 375, 601      |
| Limited quantities (ADR)         | : 5I                      |
| Excepted quantities (ADR)        | : E1                      |
| Packing instructions (ADR)       | : P001, IBC03, LP01, R001 |
| Special packing provisions (ADR) | : PP1                     |

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Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T4  
Portable tank and bulk container special provisions (ADR) : TP1, TP29  
Tank code (ADR) : LGBV  
Vehicle for tank carriage : AT  
Transport category (ADR) : 3  
Special provisions for carriage - Packages (ADR) : V12  
Special provisions for carriage - Loading, unloading and handling (ADR) : CV13  
Hazard identification number (Kemler No.) : 90  
Orange plates :



Tunnel restriction code (ADR) : -  
EAC code : •3Z

### Transport by sea

Special provisions (IMDG) : 274, 335, 969  
Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : LP01, P001  
Special packing provisions (IMDG) : PP1  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T4  
Tank special provisions (IMDG) : TP1, TP29  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-F  
Stowage category (IMDG) : A

### Air transport

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y964  
PCA limited quantity max net quantity (IATA) : 30kgG  
PCA packing instructions (IATA) : 964  
PCA max net quantity (IATA) : 450L  
CAO packing instructions (IATA) : 964  
CAO max net quantity (IATA) : 450L  
Special provisions (IATA) : A97, A158, A197  
ERG code (IATA) : 9L

### Inland waterway transport

Classification code (ADN) : M6  
Special provisions (ADN) : 274, 335, 375, 601  
Limited quantities (ADN) : 5 L  
Excepted quantities (ADN) : E1  
Equipment required (ADN) : PP  
Number of blue cones/lights (ADN) : 0

### Rail transport

Classification code (RID) : M6  
Special provisions (RID) : 274, 335, 375, 601  
Limited quantities (RID) : 5L  
Excepted quantities (RID) : E1  
Packing instructions (RID) : P001, IBC03, LP01, R001  
Special packing provisions (RID) : PP1  
Mixed packing provisions (RID) : MP19  
Portable tank and bulk container instructions (RID) : T4  
Portable tank and bulk container special provisions (RID) : TP1, TP29  
Tank codes for RID tanks (RID) : LGBV  
Transport category (RID) : 3  
Special provisions for carriage – Packages (RID) : W12  
Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW31

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Colis express (express parcels) (RID) : CE8  
Hazard identification number (RID) : 90

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

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

##### Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG)  
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting : None of the components are listed

giftige stoffen – Borstvoeding

NIET-limitatieve lijst van voor de voortplanting : PI-784 is listed

giftige stoffen – Vruchtbaarheid

NIET-limitatieve lijst van voor de voortplanting : None of the components are listed

giftige stoffen – Ontwikkeling

##### Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Abbreviations and acronyms:

|         |   |
|---------|---|
| ADN     | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR     | European Agreement concerning the International Carriage of Dangerous Goods by Road             |
| ATE     | Acute Toxicity Estimate   |
| BLV     | Biological limit value  |
| CAS-No. | Chemical Abstract Service number  |
| CLP     | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008                     |
| DMEL    | Derived Minimal Effect level  |
| DNEL    | Derived-No Effect Level   |

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|        |   |
|--------|---|
| EC50   | Median effective concentration  |
| EC-No. | European Community number   |
| EN     | European Standard   |
| IATA   | International Air Transport Association   |
| IMDG   | International Maritime Dangerous Goods  |
| LC50   | Median lethal concentration   |
| LD50   | Median lethal dose  |
| LOAEL  | Lowest Observed Adverse Effect Level  |
| NOAEC  | No-Observed Adverse Effect Concentration  |
| NOAEL  | No-Observed Adverse Effect Level  |
| NOEC   | No-Observed Effect Concentration  |
| OEL    | Occupational Exposure Limit   |
| PBT    | Persistent Bioaccumulative Toxic  |
| PNEC   | Predicted No-Effect Concentration   |
| REACH  | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| RID    | Regulations concerning the International Carriage of Dangerous Goods by Rail                      |
| SDS    | Safety Data Sheet   |
| vPvB   | Very Persistent and Very Bioaccumulative  |
| WGK    | Water Hazard Class  |

| Full text of H- and EUH-statements: |  |
|-------------------------------------|--|
| Acute Tox. 4 (Oral)                 | Acute toxicity (oral), Category 4  |
| Aquatic Acute 1                     | Hazardous to the aquatic environment — Acute Hazard, Category 1                            |
| Aquatic Chronic 1                   | Hazardous to the aquatic environment — Chronic Hazard, Category 1                          |
| Aquatic Chronic 2                   | Hazardous to the aquatic environment — Chronic Hazard, Category 2                          |
| Aquatic Chronic 3                   | Hazardous to the aquatic environment — Chronic Hazard, Category 3                          |
| Aquatic Chronic 4                   | Hazardous to the aquatic environment — Chronic Hazard, Category 4                          |
| Eye Irrit. 2                        | Serious eye damage/eye irritation, Category 2  |
| Flam. Sol. 1                        | Flammable solids, Category 1   |
| Repr. 2                             | Reproductive toxicity, Category 2  |
| Skin Irrit. 2                       | Skin corrosion/irritation, Category 2  |
| Skin Sens. 1                        | Skin sensitisation, Category 1   |
| STOT RE 2                           | Specific target organ toxicity — Repeated exposure, Category 2                             |
| STOT SE 3                           | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H228                                | Flammable solid.   |
| H302                                | Harmful if swallowed.  |
| H315                                | Causes skin irritation.  |
| H317                                | May cause an allergic skin reaction.   |
| H319                                | Causes serious eye irritation.   |
| H335                                | May cause respiratory irritation.  |
| H361f                               | Suspected of damaging fertility.   |

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|      |  |
|------|--|
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life.  |
| H410 | Very toxic to aquatic life with long lasting effects.              |
| H411 | Toxic to aquatic life with long lasting effects.                   |
| H412 | Harmful to aquatic life with long lasting effects.                 |
| H413 | May cause long lasting harmful effects to aquatic life.            |

SDS EU (REACH Annex II) Photocentric edited.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.