



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**C-Fill Flow**

Revision date: 08.03.2017

Product code: 2CFlow

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**Precautionary statements**

|                |  |
|----------------|--|
| P261           | Avoid breathing dust/fume/gas/mist/vapours/spray.  |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.                                    |
| P302+P352      | IF ON SKIN: Wash with plenty of water.   |
| 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/doctor.   |
| P333+P313      | If skin irritation or rash occurs: Get medical advice/attention.   |
| P362+P364      | Take off contaminated clothing and wash it before reuse.   |

**Additional advice on labelling**

Medical devices (93/42/EWG) which are invasive or used in direct phys. contact with the human body, are exempted from provisions of Reg. (EC) No 1272/2008 (CLP/GHS) if they are in finished state and intended for the final user.

**2.3. Other hazards**

The non-polymerized material could irritate skin due to longer contact.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

Flowable paste of different dimethacrylates, dental glass, silica, photochemical initiators, stabilizers, iron pigments

**Hazardous components**

| CAS No     | Chemical name   | Quantity    |
|------------|---|-------------|
|            | EC No   |             |
|            | Index No  |             |
|            | REACH No  |             |
|            | GHS Classification  |             |
| 72869-86-4 | 7,7,9-(resp. 7,9,9-)Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecane-1,16-dioldimethacrylate | 15 - < 20 % |
|            | 276-957-5   |             |
|            | Aquatic Chronic 3; H412   |             |
| 1565-94-2  | Bisphenol-A-bis-(2-hydroxypropyl)methacrylate   | 5 - < 10 %  |
|            |   |             |
|            | Acute Tox. 4, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 1; H302 H318 H317 H410                    |             |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No     | EC No     | Chemical name   | Quantity    |
|------------|-----------|---|-------------|
|            |           | Specific Conc. Limits, M-factors and ATE  |             |
| 72869-86-4 | 276-957-5 | 7,7,9-(resp. 7,9,9-)Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecane-1,16-dioldimethacrylate | 15 - < 20 % |
|            |           | oral: LD50 = >2000 mg/kg  |             |
| 1565-94-2  |           | Bisphenol-A-bis-(2-hydroxypropyl)methacrylate   | 5 - < 10 %  |
|            |           | oral: LD50 = >5000 mg/kg  |             |

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Polymerized material is non-hazardous.

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### After inhalation

Not applicable as all components have got a boiling point above 250°C.

### After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

### After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

### After ingestion

Rinse mouth immediately and drink plenty of water. Cause vomiting with larger quantities, consult a doctor if symptoms persist.

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

No information available.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

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

Non-flammable.

### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

### Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

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

#### General measures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

#### Other information

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid dust formation. Do not breathe dust. The unprotected substance must not be exposed to the light before processing, because it

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polymerizes. Only adequately trained personnel should handle this product. For use in dentistry only.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations.

**Hints on joint storage**

none

**7.3. Specific end use(s)**

For filling of small cavities. Perform professional industrial hygiene.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limits (EH40)**

| CAS No   | Substance                  | ppm | mg/m <sup>3</sup> | fibres/ml | Category  | Origin |
|----------|----------------------------|-----|-------------------|-----------|-----------|--------|
| 128-37-0 | 2,6-Di-tert-butyl-p-cresol | -   | 10                |           | TWA (8 h) | WEL    |

**8.2. Exposure controls****Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

**Eye/face protection**

Suitable eye protection: goggles.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state: flowable paste  
 Colour: tooth colored yellowish  
 Odour: practically odorless

**Test method**

pH-Value: not determined

**Changes in the physical state**

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|   |  |
|---|--|
| Melting point:  | not determined   |
| Boiling point or initial boiling point and boiling range: | not determined   |
| Flash point:  | 110 °C ASTM D 3278   |
| <b>Flammability</b>                                       |  |
| Solid/liquid:   | not determined   |
| Gas:  | not applicable   |
| Lower explosion limits:                                   | not determined   |
| Upper explosion limits:                                   | not determined   |
| Auto-ignition temperature:                                | 113 °C   |
| <b>Self-ignition temperature</b>                          |  |
| Solid:  | not determined   |
| Gas:  | not applicable   |
| Decomposition temperature:                                | not determined   |
| <b>Oxidizing properties</b>                               |  |
| Not oxidising.  |  |
| Vapour pressure:<br>(at 20 °C)                            | 0,001 hPa DIN 51640  |
| Density:  | 1,72 g/cm <sup>3</sup>   |
| Water solubility:   | The study does not need to be conducted because the substance is known to be insoluble in water. |
| <b>Solubility in other solvents</b>                       |  |
| not determined  |  |
| Partition coefficient n-octanol/water:                    | not determined   |
| Relative vapour density:                                  | not determined   |
| Evaporation rate:   | not determined   |
| <b>9.2. Other information</b>                             |  |
| Solid content:  | not determined   |

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Material will polymerize when exposed to daylight.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

**10.4. Conditions to avoid**

Direct light.

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**Further information**

With incomplete combustion toxic gases such as carbon monoxide may be generated.

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**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

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

**ATEmix tested**

| LD50, oral | Dose       | Species | Source     |
|------------|------------|---------|------------|
|            | 5000 mg/kg | Rat     | Literature |

| CAS No     | Chemical name   |                  |         |                      |        |
|------------|---|------------------|---------|----------------------|--------|
|            | Exposure route  | Dose             | Species | Source               | Method |
| 72869-86-4 | 7,7,9-(resp. 7,9,9-)Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecane-1,16-dioldimethacrylate |                  |         |                      |        |
|            | oral  | LD50 >2000 mg/kg | Rat     | OECD 401, limit test |        |
| 1565-94-2  | Bisphenol-A-bis-(2-hydroxypropyl)methacrylate   |                  |         |                      |        |
|            | oral  | LD50 >5000 mg/kg | Rat     | Manufacturer         |        |

**Irritation and corrosivity**

Causes serious eye damage.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

May cause an allergic skin reaction. (Bisphenol-A-bis-(2-hydroxypropyl)methacrylate)

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Additional information on tests**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

**Practical experience**

When used and handled according to specifications, the product gives to the present knowledge and experience no adverse health effects .

**SECTION 12: Ecological information****12.1. Toxicity**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

| CAS No     | Chemical name   |                |           |                             |              |        |
|------------|---|----------------|-----------|-----------------------------|--------------|--------|
|            | Aquatic toxicity  | Dose           | [h]   [d] | Species                     | Source       | Method |
| 72869-86-4 | 7,7,9-(resp. 7,9,9-)Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecane-1,16-dioldimethacrylate |                |           |                             |              |        |
|            | Acute fish toxicity   | LC50 10,1 mg/l | 96 h      | Brachydanio rerio           | OECD 203     |        |
| 1565-94-2  | Bisphenol-A-bis-(2-hydroxypropyl)methacrylate   |                |           |                             |              |        |
|            | Acute fish toxicity   | LC50 >100 mg/l | 96 h      | Poecilia reticulata (Guppy) | Manufacturer |        |

**12.2. Persistence and degradability**

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The product has not been tested.

**12.3. Bioaccumulative potential**

The product has not been tested.

**Partition coefficient n-octanol/water**

| CAS No     | Chemical name   | Log Pow |
|------------|---|---------|
| 72869-86-4 | 7,7,9-(resp. 7,9,9-)Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecane-1,16-dioldimethacrylate | 3,39    |
| 1565-94-2  | Bisphenol-A-bis-(2-hydroxypropyl)methacrylate   | 4,63    |

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The product has not been tested.

**12.7. Other adverse effects**

No information available.

**Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

**List of Wastes Code - residues/unused products**

200139 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); Plastics

**Contaminated packaging**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****14.6. Special precautions for user**

No information available.

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

2010/75/EU (VOC): 8,911 % (153,269 g/l)

2004/42/EC (VOC): 7,224 % (124,253 g/l)

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 3 - highly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

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### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Changes

This data sheet contains changes from the previous version in section(s): 2,3,4,6,7,9,10,11,13,15,16.

### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

### Relevant H and EUH statements (number and full text)

|      |   |
|------|---|
| H302 | Harmful if swallowed.                                 |
| H317 | May cause an allergic skin reaction.                  |
| H318 | Causes serious eye damage.                            |
| 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.    |

### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*