

**Megafill Flow Ceram**

Revision date: 25.09.2023

Product code: 2Flow

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

**1.1. Product identifier**

Megafill Flow Ceram

Product group: Composite

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

**Use of the substance/mixture**

Class V restorations (cervical caries, root erosion, wedge-shaped defects), small posterior restorations, anterior restorations (classes III and VI) restorative therapy for mini-cavities, preventive resin restorations in premolars and molars, adhesive cementation of ceramic and composite restorations.

**Uses advised against**

Application of eugenol containing material, specifically base liners, is not indicated, it will inhibit the polymerization.

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

Company name:	MEGADENTA Dentalprodukte GmbH	
Street:	Carl-Eschebach-Str. 1A	
Place:	01454 Radeberg, Germany	
Telephone:	+49-3528 4530	Telefax: +49-3528 45321
e-mail:	info@megadenta.de	
Internet:	www.megadenta.de	

**1.4. Emergency telephone number:** +49-3528 453-0 (just during usual office time: GMT+1)

**SECTION 2: Hazards identification**

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

**Regulation (EC) No 1907/2006**

Hazard categories:  
 Serious eye damage/eye irritation: Eye Dam. 1  
 Respiratory or skin sensitisation: Skin Sens. 1  
 Hazardous to the aquatic environment: Aquatic Chronic 2  
 Hazard Statements:  
 May cause an allergic skin reaction.  
 Causes serious eye damage.  
 Toxic to aquatic life with long lasting effects.

**2.2. Label elements**

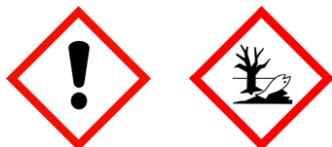
**Regulation (EC) No 1907/2006**

**Hazard components for labelling**

Bisphenol-A-bis-(2-hydroxypropyl)methacrylate

**Signal word:** Danger

**Pictograms:**



**Hazard statements**

May cause an allergic skin reaction.  
 Causes serious eye damage.  
 Toxic to aquatic life with long lasting effects.

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#### Precautionary statements

Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER/doctor.  
If skin irritation or rash occurs: Get medical advice/attention.  
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

No information available.  
Wassergefährdungsklasse 3 - stark wassergefährdend

### 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	
	Classification (GB CLP Regulation)			
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.

##### After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off



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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.

#### **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 advice**

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 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.

##### **Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

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Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

#### 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. Light-sensitive substance. Protect from exposure to the light. Store not above 25°C.

##### Hints on joint storage

none

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

Class V restorations (cervical caries, root erosion, wedge-shaped defects), small posterior restorations (classes I and II), anterior restorations (classes III and IV), restorative therapy for mini-cavities, preventive resin restorations in premolars and molars, adhesive cementation of ceramic and composite restorations.

### 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.

##### Individual protection measures, such as personal protective equipment

##### 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:  
 Odour: practically odorless

##### Test method

Melting point/freezing point: not determined  
 Boiling point or initial boiling point and boiling range: 211 °C

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Flammability:	not determined not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	113 °C ASTM D 3278
Auto-ignition temperature:	113 °C
Decomposition temperature:	not determined
pH-Value:	nicht anwendbar0
Water solubility:	unlöslich
Solubility in other solvents not determined	
Partition coefficient n-octanol/water:	not determined
Vapour pressure: (at 20 °C)	0,001 hPa DIN 51640
Density:	1,72 g/cm <sup>3</sup>
Bulk density:	NF T 20-053
Relative vapour density:	not determined

#### 9.2. Other information

##### Information with regard to physical hazard classes

Self-ignition temperature

Solid:

not determined

Gas:

not applicable

Oxidizing properties

Not oxidising.

##### Other safety characteristics

Evaporation rate:

not determined

Solid content:

64,30 %

Flow time:

Daten nicht verfügbar0

## 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

none

### 10.4. Conditions to avoid

Direct light.

### 10.5. Incompatible materials

none

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

#### Further information

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

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in GB CLP Regulation

#### Acute toxicity

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

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#### 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-dioxa-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].

## 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-dioxa-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

The product has not been tested.

### 12.3. Bioaccumulative potential

The product has not been tested.

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#### 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-dioxa-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 substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 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.

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### 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

Restrictions on use (REACH, annex XVII):

Entry 75

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

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

##### National regulatory information

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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.

#### 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): 1,2,4,5,6,7,8,9,10,11,12,13,14,15,16.

#### 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)

Harmful if swallowed.  
May cause an allergic skin reaction.  
Causes serious eye damage.  
Very toxic to aquatic life with long lasting effects.  
Toxic to aquatic life with long lasting effects.  
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.)*