

# MATERIAL SAFETY DATA SHEET

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Issue Date:

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06.08.2015

## 1. Identification of the substance/ mixture and the company/ undertaking

### 1.1 Product identifier

Product name: Forestacryl Powder  
 Product description: Polymer powder based on Poly Methyl Methacrylate  
 Alternative names: -  
 Product numbers: 401-0010, 401-0020, 401-0021, 401-0022, 401-0025, 404-0010

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

Identified use Professional: End use of mixtures containing for manufacturing of dental prosthesis, expanding or repairing dental prosthesis, manufacturing of dental regulators and individually formed impression trays.  
 Uses advised against Mixtures containing unreacted liquid monomer intended to come into contact with skin or nails.

Refer to Exposure Scenario Annex for further details.

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

FORESTADENT  
 Bernhard Förster GmbH  
 Westliche Karl-Friedrich-Str. 151  
 75172 Pforzheim  
 Germany  
 info@forestadent.com

**Emergency number:** +49 (030) 19240  
 Poison Information Centre Berlin

## 2. Hazards Identification

### 2.1 Classification of the substance or mixture

According to Regulation (EC) No. 1272/2008 (CLP).  
 This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

### 2.2 Label elements

Not applicable

### 2.3 Other hazards

Not classified as PBT or vPvB. Combustible but not readily ignited. May form explosible dust clouds in air. Low toxicity under normal conditions of handling and use.

## 3. Composition / Information on Ingredients

### 3.1 Substances

This product is a mixture

### 3.2 Mixtures

The product does not meet the criteria for classification in any hazard class. Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below. Note that the concentration of hazardous goods in the mixture is too low to give the mixture some of their specific hazards.

According to Regulation (EC) No. 1272/2008 (CLP).

HAZARDOUS INGREDIENT(S)	% w/w	EC no.	Hazard Class and Category Code(s)	Hazard statement Code(s)
Dibenzoyl peroxide	< 1	202-327-6	Org. Perox. B Skin Sens. 1 Eye Irrit. 2 Aquatic Acute. 1	H241 H317 H319 H400
Barbituric acid	< 1	276-940-2	Skin Irrit. 2 Eye Irrit. 2 STOT SE 3	H315 H319 H335
Methyl Methacrylate	< 1	201-297-1	Flam. Liq. 2 Skin Irrit. 2 Skin Sens. 1 STOT SE 3	H225 H315 H317 H335

For full text of H phrases see section 16.

#### 4. First Aid Measures

##### 4.1 Description of first aid measures

- Inhalation:** IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- Skin contact :** IF ON SKIN (or hair): Wash with plenty of water. If skin irritation or rash occurs: Get medical attention.
- Eye contact:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Ingestion:** Do not induce vomiting. Rinse mouth. Obtain medical attention if ill effects occur.

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

Not applicable

##### 4.3 Indication of the immediate medical attention and special treatment needed

none necessary

#### 5. Fire-Fighting Measures

##### 5.1 Extinguishing media

- Suitable Extinguishing media** In case of fire, use water spray, foam, dry powder or CO<sub>2</sub> for extinction.
- Unsuitable Extinguishing media** Do not use water jet.

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

Combustible but not readily ignited. Combustion or thermal decomposition will evolve toxic, irritant and flammable vapours. This product can form flammable dust clouds at elevated temperatures. The minimum ignition temperature of a dust cloud a similar polymer has been measured at approximately 480°C (IEC 1241-2-1)

##### 5.3 Advise for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

#### 6. Accidental Release Measures

- 6.1 Personal precautions:** Caution – spillages may be slippery.
- 6.2 Environmental precautions:** Avoid release to the environment.
- 6.3 Methods and material for containment and cleaning up:** Collect in containers for disposal using approved dust respirator.
- 6.4 References to other section:** see section 8, 13

#### 7. Handling and Storage

- 7.1 Precautions for safe handling** Do not eat, drink or smoke at the work space. Product as supplied: avoid contact with eyes. Avoid prolonged skin contact. Unlikely to represent a dust hazard under normal handling conditions. Dental resins are usually processed in conjunction with reactive monomers and this may require the use of a higher level of PPE than necessary for the polymer itself. Please see the advice in Sections 8 and 11.
- 7.2 Conditions for safe storage, including any incompatibilities** Acrylic polymers are supplied in either bags or bulk containers. Keep containers in a clean, cool and dry area away from heat sources. Natural ventilation is adequate. Storage temperature: Ambient. Incompatible materials: Polymer contains residual benzoyl peroxide. This may react with oxidising agents, reducing agents, acids, bases and amines leading to decomposition.
- 7.3 Specific end use(s)** Not intended for thermal processing.

#### 8. Exposure controls / Personal protection

##### 8.1 Control parameters

In each case, the currently valid national exposure limit values for Dibenzoyl Peroxide, Methyl Methacrylate and dust must be observed.

Substances	EC No.	LTEL mg/m <sup>3</sup> (8hr TWA)	Notes
Dibenzoyl Peroxide	202-327-6	5	WEL
Methylmethacrylate	201-297-1	208	WEL
Dust (inhalable dust)		10	WEL
Dust (respirable dust)		4	WEL

## 8.2 Exposure controls

### Appropriate engineering controls

Do not eat, drink or smoke at the work place. Provide adequate ventilation, including appropriate local extraction, to ensure that the occupational exposure limit is not exceeded. Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required. The following information is given as general guidance.

### Individual protection measures, such as personal protective equipment (PPE)

Eye/ face protection	Wear eye/ face protection Safety spectacles/ goggles/ full face shield
Skin protection	Wear suitable gloves. Butyl and nitrile rubber gloves are suitable. Later surgical gloves offer little protection.
Respiratory Protection	A suitable dust mask or dust respirator with filter type P3 or FFP3 (EN143 or EN149) may be appropriate. In the unlikely event of formation of particularly high levels of dust a self-contained breathing apparatus may be appropriate.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form:</b>	Fine beads
<b>Colour:</b>	Coloured
<b>Odour :</b>	Typically methacrylate
<b>pH:</b>	Not applicable
<b>Melting point:</b>	150 230°C
<b>Boiling point:</b>	Not applicable
<b>Flash point:</b>	≈ 390°C
<b>Flammable limits (lower):</b>	Not applicable
<b>Flammable limits (upper):</b>	Not applicable
<b>Vapour pressure:</b>	Not applicable
<b>Solubility (Water):</b>	Negligible
<b>Solubility (Other):</b>	Not available
<b>Auto-ignition temperature:</b>	≈ 465°C
<b>Explosive properties:</b>	Weakly to moderately explosive
<b>Oxidising properties:</b>	Not applicable
<b>Relative density:</b>	1,1 – 1,18 g/cm <sup>3</sup>

### 9.2 Other information

None

## 10. Stability and Reactivity

<b>10.1 Reactivity</b>	Non-reactive material.
<b>10.2 Chemical stability</b>	Stabler under normal conditions.
<b>10.3 Possibility of hazardous reactions</b>	None known.
<b>10.4 Conditions to avoid</b>	Avoid dust generation.
<b>10.5 Incompatible materials</b>	Polymer contains residual benzoyl peroxide. This may react with oxidising agents, reducing agents, acid, bases and amines leading to decomposition.
<b>10.6 Hazardous Decomposition Product(s)</b>	Methylmethacrylate, Dibenzoyl peroxide, Carbon dioxide, Carbon monoxide.

## 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Ingestion	Low oral toxicity
Inhalation	Unlikely to be hazardous by inhalation.
Skin contact	Unlikely to cause skin irritation. Contains less than 1,0% residual (Methyl Methacrylate, Dibenzoyl peroxide, Barbituric acid). During normal handling this will not constitute a hazard. If the polymer matrix is destroyed e.g. when the product is dissolved in organic solvent, chemical residues will be released from the polymer matrix. Under these conditions, they may produce an allergic reaction in persons already sensitized.
Eye Contact	Dust may cause irritation.

**12. Ecological information****12.1 Toxicity**

The product is predicted to have low toxicity aquatic organisms.

**12.2 Persistence and degradability**

The product is non- biodegradable in soil. There is no evidence of degradation in soil and water.

**12.3 Bioaccumulative potential**

The product as low potential for bioaccumulation

**12.4 Mobility in soil**

The product is predicted to have low mobility in soil

**12.5 Results of PBT and vPvB assessment**

Not classified as PBT or vPvB

**12.6 Other adverse effects**

None known.

**13. Disposal considerations**

The waste is considered to be non-hazardous. Clean scrap may be reprocessed. Certain packages are returnable. Please consult your local office for further details. Ensure that all packaging is disposed of safely.

**13.1 Waste treatment methods**

May be disposed of by landfill in accordance with local regulations. Incineration may be used to recover energy value. Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

**14. Transportation information**

**14.1 UN number** Not applicable.

**14.2 UN Proper Shipping Name** Not applicable.

**14.3 Transport hazard class(es)** Not applicable.

**14.4 Packing group** Not applicable.

**14.5 Environmental hazards** Not applicable.

**14.6 Special precautions for user** Not applicable.

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

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

Regulation (EC) No. 1272/2008 (Classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006).

Directive 2009/161/EU (third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC).

**15.2 Chemical Safety Assessment**

A Chemical Safety Assessment has not been carried out for this substance/ mixture. Not applicable.

**16. Other information**

This Safety Data Sheet was prepared in accordance with EC Regulation (EC) No. 453/2010.

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.

The values mentioned in section 8 of this datasheet are based on the invalid values in the European Union.

Other Countries may apply other values.

**LEGEND**

<b>Note:</b>	Not all of the following are necessarily contained in this Safety Data Sheet.
<b>IOELV:</b>	Indicative Occupational Exposure Limit Value.
<b>WEL:</b>	Workplace Exposure Limit.
<b>Bmgv:</b>	Biological Monitoring Guidance Value.
<b>Sen.:</b>	Capable of causing respiratory sensitization.
<b>Sk:</b>	Can be absorbed through skin.
<b>Carc.:</b>	Capable of causing cancer and/or heritable genetic damage.
<b>CHAN:</b>	Chemical Hazard Alert Notice.
<b>COM:</b>	The company aims to control exposure in its workplace to this limit.
<b>LTEL:</b>	Long Term Exposure Limit.
<b>STEL:</b>	Short Term Exposure Limit.
<b>TWA:</b>	Time Weighted Average.
<b>STOT SE:</b>	Specific Target Organ Toxicity – Single Exposure.
<b>Repr.:</b>	Reproductive toxicity.
<b>Aquatic acute/ chronic:</b>	

**Full text of H/P/R phrases**

<b>H225</b>	Highly flammable liquid and vapour
<b>H315</b>	Causes skin irritation
<b>H317</b>	May cause an allergic skin reaction
<b>H335</b>	May cause respiratory irritation
<b>P210</b>	Keep away from heat, sparks, open flame, hot surfaces – No smoking.
<b>P233</b>	Keep container tightly closed.
<b>P240</b>	Ground/ bond container and receiving equipment.
<b>P241</b>	Use explosion-proof electrical/ ventilating/ lighting/.../ Equipment
<b>P242</b>	Use only non sparking tools.
<b>P243</b>	Take precautionary measures against static discharge.
<b>P261</b>	Avoid breathing vapours
<b>P264</b>	Wash (hands and exposed skin) thoroughly after handling.
<b>P271</b>	Use only outdoors or in a well-ventilated area.
<b>P272</b>	Contaminated work clothing should not be allowed out of the workplace.
<b>P280</b>	Wear protective gloves/ protective clothing/ eye protection/ face protection.
<b>P302 + P352</b>	IF ON SKIN: Wash with plenty of soap and water
<b>P303+P361+P353</b>	IF ON SKIN: (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
<b>P304+P340:</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
<b>P312</b>	Call a POISON CENTRE or doctor if victim feels unwell.
<b>P321</b>	Specific treatment (see on this label)
<b>P332+P313</b>	If skin irritation occurs: Get medical advice/ attention.
<b>P333+P313</b>	If skin irritation or rash occurs: Get medical advice/ attention.
<b>P362</b>	Take off contaminated clothing and wash before reuse.
<b>P363</b>	Wash contaminated clothing before reuse.
<b>P403+P233</b>	Store in a well-ventilated place. Keep container tightly closed.
<b>P403+P235</b>	Store in a well-ventilated place. Keep cool.
<b>P405</b>	Store locked up
<b>P501</b>	Dispose of contents/ container to hazardous waste in accordance with local, state or national legislation. Incinerate under approved controlled conditions, using incinerators suitable for the disposal of flammable organics.

**Further information**

<b>durability</b>	See expiration date of the package
<b>created:</b>	LN1046
<b>Changes</b>	Adaption to REACH-Regulation
<b>Last changed</b>	07/06/16
<b>Date of original:</b>	12/08/15