

Material Safety Data Sheet according to (EC) 1907/2006



Tradename:

BIOCRYL-RESIN Polymer

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SECTION 1: Identification of the substance/preparation and of the company/undertaking

1.1. Product identifier

Name of product: **BIOCRYL-RESIN Polymer**

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

Use of the substance/mixture

Polymer based on Methyl Methacrylate for manufacturing of dental prosthesis, expanding or repairing dental prosthesis, manufacturing of dental regulators and individually formed impression trays.

1.3. Details of the supplier of the safety data sheet

Manufacturer / distributor

SCHEU-DENTAL GmbH

Am Burgberg 20

D-58642 Iserlohn

Tel. +49 (2374) 9288-0

Fax +49 (2374) 9288-90

eMail: service@SCHEU-DENTAL.com

Internet: www.SCHEU-DENTAL.com

1.4. Emergency telephone number: +49 (2374) 9288-0

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification 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.

SECTION 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 are too low to give the mixture some of their specific hazards.

Hazardous ingredient(s)	%W/W	EINECS 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.

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SECTION 4: First aid measures

4.1. Description of first aid measures

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

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

Not applicable.

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

None necessary.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray, foam, dry powder or CO₂

Unsuitable extinguishing media

Water with full 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 1241-21).

5.3. Advice for firefighters

Special protective equipment for fire fighters:

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

Additional information

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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. Reference to other sections

Personal protection equipment: see section 8

Disposal: see section 13

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SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Advice on safe handling

Do not eat, drink or smoke at the work place. 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 also see the advice in Sections 8 and 11.

7.2. Conditions for safe storage, including any incompatibilities

Storage:

Requirements for storage rooms and vessels

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.

SECTION 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.

Substance	EC No.	LTEL mg/M ³ (8 h TWA)	Notes
Dibenzoyl Peroxide	202-327-6	5	WEL
Methyl Methacrylate	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 limits is not exceeded. Consideration should be given to the work procedures involved and the potential extent of exposure as the 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)

Respiratory protection

A suitable dust mask or dust respirator with filter type P3 or FFP3 (EN 143 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.

Skin protection

Wear suitable gloves. Butyl and nitrile rubber gloves are suitable. Later surgical gloves offer little protection.

Eye/face protection

Wear eye/face protection.

Safety spectacles / goggles / full face shield.

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

Physical state	Fine beads
Colour	Coloured
Odour	Typically methacrylate
pH-Value:	not applicable

Changes in the physical state

Melting point	150 - 230 °C
Boiling point	Not applicable
Flash point	~390 °C
Flammable Limits (lower)	Not applicable
Flammable Limits (upper)	Not applicable
Vapour pressure	Not applicable
Water solubility	Negligible
Solubility in other solvents	Not available
Auto ignition temperature	~465 °C
Explosive properties	Weakly to moderately explosible
Oxidising properties	Not applicable
Relative density	1,1 – 1,18 g/cm ³
Bulk density	0,60 – 0,70 g/ml

9.2. Other information

None

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

Non-reactive material.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid dust generation.

10.5. Incompatible materials

Polymer contains residual benzoyl peroxide. This may react with oxidising agents, reducing agents, acids, bases and amines leading to decomposition.

10.6. Hazardous decomposition products

Methyl methacrylate, Dibenzoyl peroxide, Carbon dioxide, Carbon monoxide.

SECTION 11: Toxicological Information**11.1. Information on toxicological effects**

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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.

SECTION 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 has 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.

SECTION 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.

SECTION 14: Transport Information**Land transport (ADR/RID)**

14.1. UN number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	
14.3. Transport hazard class(es):	
14.4. Packing group:	

Inland waterways transport (ADN)

14.1. UN number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	
14.3. Transport hazard class(es):	
14.4. Packing group:	

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Marine transport (IMDG)

14.1. UN number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	
14.3. Transport hazard class(es):	
14.4. Packaging group:	

Air transport (ICAO)

14.1. UN number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	
14.3. Transport hazard class(es):	
14.4. Packaging group:	

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

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

SECTION 15: Regulatory Information**15.1. Safety, health and environmental regulations/legislation 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. 107/2006.
Richtlinie 2009/161/EU (dritte Liste von Arbeitsplatz-Richtgrenzwerten in Durchführung der Richtlinie 98/24/EG des Rates und zur Änderung der Richtlinie 2000/39/EG).

15.2. Chemical Safety Assessment

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

SECTION 16: Other Information**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 %

Full text of H phrases (not the classification of the mixture)**Dibenzoyl Peroxide**

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.

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1-benzyl-5-phenylbarbituric acid

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Methyl Methacrylate

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

Further information

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

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.