

according to UK REACH Regulation

PremEco Line Gießkunststoff, Polymer

Revision date: 25.01.2024 Product code: D258_rosa Page 1 of 10

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

1.1. Product identifier

PremEco Line Gießkunststoff, Polymer

Further trade names

PremEco Line Gießkunststoff, Polymer: all colors

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

Use of the substance/mixture

Material for the manufacture of dental medical devices.

1.3. Details of the supplier of the safety data sheet

Company name: Merz Dental GmbH

Street: Kieferweg 1

Place: D-24321 Luetjenburg (GERMANY)

Telephone: +49-(0)4381-403-0 Telefax: +49-(0)4381-403-100

e-mail: info@merz-dental.de

Contact person: Dipl. Chem Dr. Thomas Panther Telephone: +49-(0)4381-403-448

e-mail: Thomas.Panther@merz-dental.de

Internet: www.merz-dental.de

Responsible Department: Qualitaetssicherung (Quality Assurance)

1.4. Emergency telephone +49-(0)551-19240 (Giftinformationszentrum-Nord)

number:

SECTION 2: Hazards identification

2.2. Label elements

GB CLP Regulation

Special labelling of certain mixtures

EUH208 Contains dibenzoyl peroxide; benzoyl peroxide, methyl methacrylate. May produce an

allergic reaction.

EUH210 Safety data sheet available on request.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

polymethyl methacrylate

Hazardous components

CAS No	Chemical name	Chemical name			
	EC No	Index No	REACH No		
	Classification (GB CLP	Regulation)			
94-36-0	dibenzoyl peroxide; ber	dibenzoyl peroxide; benzoyl peroxide			
	202-327-6	617-008-00-0			
	Org. Perox. B, Eye Irrit. 2, Skin Sens. 1; H241 H319 H317				
80-62-6	methyl methacrylate	methyl methacrylate			
	201-297-1	607-035-00-6	01-2119452498-28-0028		
	Flam. Liq. 2, Skin Irrit. 2, Skin Sens. 1, STOT SE 3; H225 H315 H317 H335				

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



Safety Data Sheet

according to UK REACH Regulation

PremEco Line Gießkunststoff, Polymer

Revision date: 25.01.2024 Product code: D258_rosa Page 2 of 10

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. L	Limits, M-factors and ATE	
94-36-0	202-327-6	dibenzoyl peroxide; benzoyl peroxide	0.1 - < 1 %
	inhalation: LC50 = > 24300 mg/l (dusts or mists); oral: LD50 = > 2000 mg/kg		
80-62-6	201-297-1	methyl methacrylate	0.1 - < 1 %
	inhalation: LC50 = 29,8 mg/l (vapours); dermal: LD50 = > 5000 mg/kg; oral: LD50 = 7872 mg/kg		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Change contaminated clothing.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink 1 glass of 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. Extinguishing powder, Carbon dioxide (CO2), Water spray jet, Foam.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Non-flammable. This material is combustible, but will not ignite readily. In case of fire may be liberated: Carbon dioxide (CO2), Carbon monoxide

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

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

Do not breathe dust. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Wear personal protection equipment. Special danger of slipping by leaking/spilling product.



according to UK REACH Regulation

PremEco Line Gießkunststoff, Polymer

Revision date: 25.01.2024 Product code: D258_rosa Page 3 of 10

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Clean contaminated articles and floor according to the environmental legislation.

6.3. Methods and material for containment and cleaning up

For cleaning up

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

No special measures are necessary.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.

Hints on joint storage

To follow: Storage class

7.3. Specific end use(s)

Material for the manufacture of dental medical devices.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
94-36-0	Dibenzoyl peroxide	-	5		TWA (8 h)	WEL
96-33-3	Methyl acrylate	5	18		TWA (8 h)	WEL
		10	36		STEL (15 min)	WEL
80-62-6	Methyl methacrylate	50	208		TWA (8 h)	WEL
		100	416		STEL (15 min)	WEL



Safety Data Sheet

according to UK REACH Regulation

PremEco Line Gießkunststoff, Polymer

Revision date: 25.01.2024 Product code: D258_rosa Page 4 of 10

DNEL/DMEL values

CAS No	Substance				
DNEL type		Exposure route	Effect	Value	
94-36-0	dibenzoyl peroxide; benzoyl peroxide				
Consumer DN	EL, long-term	inhalation	systemic	2,9 mg/m³	
Worker DNEL	, long-term	dermal	systemic	6,6 mg/kg bw/day	
Consumer DNEL, long-term		oral	systemic	1,65 mg/kg bw/day	
Worker DNEL	, long-term	inhalation	systemic	11,75 mg/m³	
Consumer DN	EL, long-term	dermal	systemic	3,3 mg/kg bw/day	
80-62-6	methyl methacrylate				
Worker DNEL, long-term		inhalation	local	210 mg/m³	
Worker DNEL, long-term		dermal	systemic	13,67 mg/kg bw/day	

PNEC values

CAS No	Substance		
Environment	al compartment	Value	
94-36-0	dibenzoyl peroxide; benzoyl peroxide		
Freshwater		0,000602 mg/l	
Marine wate	r	0,0000602 mg/l	
Freshwater sediment		0,338 mg/kg	
Micro-organisms in sewage treatment plants (STP)		0,35 mg/l	
Soil		0,0758 mg/kg	
80-62-6	methyl methacrylate		
Freshwater		< 0,94 mg/l	
Marine water		< 0,94 mg/l	
Soil			
Air			

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations. Use an "other exhaust ventilation system" according to 2001/59/EC (Annex 7A).. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection.

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.



Safety Data Sheet

according to UK REACH Regulation

PremEco Line Gießkunststoff, Polymer

Revision date: 25.01.2024 Product code: D258_rosa Page 5 of 10

Skin protection

Use of 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: Powder Colour: various

Melting point/freezing point: $> 80 \, ^{\circ}\text{C}$ Flash point: $> 250 \, ^{\circ}\text{C}$ Water solubility: poorly soluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Density:

ca. 1,15 g/cm³

Relative vapour density:

not determined

not determined

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Oxidizing properties

This material is combustible, but will not ignite readily.

Other safety characteristics

Evaporation rate: not determined Solvent separation test: < 1% Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

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

Decompostion takes place from temperatures above: 250 °C

10.5. Incompatible materials

Oxidising agent

10.6. Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapours.

Hazardous decomposition products: SECTION 8: Exposure controls/personal protection

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.



according to UK REACH Regulation

PremEco Line Gießkunststoff, Polymer

Revision date: 25.01.2024 Product code: D258_rosa Page 6 of 10

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
94-36-0	dibenzoyl peroxide; benzoyl peroxide					
	oral	LD50 mg/kg	> 2000	Mouse	Nier, Korea 2001	OECD 401
	inhalation dust/mist	LC50 mg/l	> 24300	Rat		
80-62-6	methyl methacrylate					
	oral	LD50 mg/kg	7872	Rat	RTECS	
	dermal	LD50 mg/kg	> 5000	Rabbit	REACH Dossier	OECD 402
	inhalation (4 h) vapour	LC50	29,8 mg/l	Rat	REACH Dossier	standard acute metho

Irritation and corrosivity

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

Sensitising effects

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

Similar to related material, not skin sensitizing. Contains: dibenzoyl peroxide, methyl methacrylate. There is no danger as long as the substances are immobilized within the polymer matrix. Only through the Destruction of the polymer matrix, e.g. by suitable solvents, can cause the sensitizing components be mobilized again. In people who have already been sensitized, the remobilized components can lead to allergic reactions. Similar to related material, not skin sensitizing. Contains: dibenzoyl peroxide, methyl methacrylate. There is no danger as long as the substances are immobilized within the polymer matrix. Only through the Destruction of the polymer matrix, e.g. by suitable solvents, can cause the sensitizing components be mobilized again. In people who have already been sensitized, the remobilized components can lead to allergic reactions.

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.

11.2. Information on other hazards

Further information

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.



according to UK REACH Regulation

PremEco Line Gießkunststoff, Polymer

Revision date: 25.01.2024 Product code: D258_rosa Page 7 of 10

CAS No	Chemical name								
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method		
94-36-0	dibenzoyl peroxide; benzoyl peroxide								
	Acute fish toxicity	LC50 mg/l	0,24	96 h	Oryzias latipes (Ricefish)	Nier, Korea 2002c	OECD 203		
	Acute algae toxicity	ErC50 mg/l	0,44	72 h	Selenastrum capricornutum	Nier, Korea 2002f	OECD 201		
	Acute crustacea toxicity	EC50 mg/l	0,07	48 h	Daphnia pulex (water flea)	Nier, Korea 2002g	OECD 202		
	Algae toxicity	NOEC mg/l	0,02	3 d	Pseudokirchneriella subcapitata	REACH Dossier	EU Method C.3		
	Crustacea toxicity	NOEC mg/l	0,001	21 d	Daphnia pulex (water flea)	REACH Dossier	OECD 211		
	Acute bacteria toxicity	0,30 g O2/g mg/l)	(EC50 0,35	0,5 h	activated sludge	REACH Dossier	OECD 209		
80-62-6	methyl methacrylate								
	Acute fish toxicity	LC50	191 mg/l	96 h	Lepomis macrochirus (Bluegill)	Merck			
	Acute algae toxicity	ErC50 mg/l	> 110	72 h	Pseudokirchneriella subcapitata	REACH Dossier	OECD 201		
	Acute crustacea toxicity	EC50	69 mg/l	48 h	Daphnia magna (Big water flea)	REACH Dossier	EPA OTS 797.1300		

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name							
	Method	Value		d	Source			
	Evaluation	-	-					
94-36-0	dibenzoyl peroxide; benzoyl peroxide							
	OECD 301D/ EEC 92/69/V, C.4-E	71 %		28	REACH Dossier			
	Readily biodegradable (according to OECD criteria).		-					
80-62-6	methyl methacrylate							
	OECD 301C/ ISO 9408/ EEC 92/69/V, C.4-F	94 %		14	Publication			
	Readily biodegradable (according to OECD criteria).		-					
•	EPA, title 40 Code of Federal Regulations Part 160	> 99 %		2	40 CFR 160			
	Readily biodegradable (according to OECD criteria).	_			_			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
94-36-0	dibenzoyl peroxide; benzoyl peroxide	3,2
80-62-6	methyl methacrylate	1,38

BCF

CAS No	Chemical name	BCF	Species	Source
94-36-0	dibenzoyl peroxide; benzoyl peroxide	47,4	n/n	EpiSuite QSAR tool
80-62-6	methyl methacrylate	2,97 - 3,5	Pisces	SDB HIT-ICE, B

12.4. Mobility in soil

The product has not been tested.



Safety Data Sheet

according to UK REACH Regulation

PremEco Line Gießkunststoff, Polymer

Revision date: 25.01.2024 Product code: D258_rosa Page 8 of 10

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of UK REACH.

The product has not been tested.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

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

070213 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; waste plastic

List of Wastes Code - used product

070213 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; waste plastic

Contaminated packaging

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

SECTION 14: Transport information

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

Inland waterways transport (ADN)

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

Marine transport (IMDG)

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

Air transport (ICAO-TI/IATA-DGR)

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

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user



Safety Data Sheet

according to UK REACH Regulation

PremEco Line Gießkunststoff, Polymer

Revision date: 25.01.2024 Product code: D258_rosa Page 9 of 10

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

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

Information according to 2012/18/EU

Not subject to 2012/18/EU (SEVESO III)

(SEVESO III):

National regulatory information

Water hazard class (D): 2 - obviously hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s):

1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

Abbreviations and acronyms

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate LC50: Lethal concentration, 50%

LD50: Lethal dose, 50% LL50: Lethal loading, 50% EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic vPvB: very persistent, very bioaccumulative

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

IMDG: International Maritime Code for Dangerous Goods

EmS: Emergency Schedules MFAG: Medical First Aid Guide

IATA: International Air Transport Association ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container



Safety Data Sheet

according to UK REACH Regulation

PremEco Line Gießkunststoff, Polymer

Revision date: 25.01.2024 Product code: D258_rosa Page 10 of 10

VOC: Volatile Organic Compounds SVHC: Substance of Very High Concern

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety

assessment, chapter R.20 (Table of terms and abbreviations).

Key literature references and sources for data

(EU) 2020/878 OECD - SIDS

ECHA - REACH Dossier

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H241	Heating may cause a fire or explosion.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.