Printing date 23.12.2024 Version: 2 Revision: 23.12.2024

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

· 1.1 Product identifier

· Trade name: anaxblend pekk bond

· Article number: 20700008

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

No further relevant information available.

· Application of the substance / the mixture Dental bonding material

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

anax dent GmbH, Dreifelderstr.5, D-70599 Stuttgart

Tel.: 0711/620092-0 Fax: 0711/620092-29

anaxdent.com

- · Further information obtainable from: R&D, MANI MEDICAL GERMANY GmbH, Tel: +049 6003/8286-0
- · 1.4 Emergency telephone number:
- +49 (0) 6003 82 86-0, MANI MEDICAL GERMANY GmbH (8:00 17:00) or
- +49 (0) 6131 19240 Poison Information Center, University Mainz (24 h)

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

H225 Highly flammable liquid and vapour. Flam. Liq. 2

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H335 May cause respiratory irritation.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms







GHS02

GHS07

· Signal word Danger

Hazard-determining components of labelling:

methyl methacrylate

di-urethane dimethacrylate

diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide

· Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P241 *Use explosion-proof [electrical/ventilating/lighting] equipment.*

Avoid breathing dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water [or shower].

P405 Store locked up.

(Contd. on page 2)

Printing date 23.12.2024 Version: 2 Revision: 23.12.2024

Trade name: anaxblend pekk bond

(Contd. of page 1)

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Labelling of packages where the contents do not exceed 125 ml
- · Hazard pictograms







- · Signal word Danger
- · Hazard-determining components of labelling:

methyl methacrylate

di-urethane dimethacrylate

diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide

· Hazard statements

H317 May cause an allergic skin reaction.

· Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:					
	methyl methacrylate	50-75%			
EINECS: 201-297-1	Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335				
	di-urethane dimethacrylate	25-50%			
	🕸 Aquatic Chronic 2, H411; 🕠 Skin Sens. 1B, H317				
	diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide	<2.5%			
EINECS: 278-355-8	Repr. 2, H361f; 🔖 Aquatic Chronic 2, H411; 🗘 Skin Sens. 1B, H317				

75980-60-8 diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide

· Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information Immediately remove any clothing soiled by the product.
- · After inhalation Supply fresh air; consult doctor in case of complaints.
- · After skin contact

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

- · After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

• 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

(Contd. on page 3)

Trade name: anaxblend pekk bond

(Contd. of page 2)

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

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents

Fire-extinguishing powder

Foam

Carbon dioxide

Water spray

- · For safety reasons unsuitable extinguishing agents Water with full jet.
- · 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Wear protective clothing.

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources

- · 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

When pumping out, please ensure grounding.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· 6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · 7.2 Conditions for safe storage, including any incompatibilities
- ·Storage
- · Requirements to be met by storerooms and receptacles:

Close container immediately after use and protect product from light incidence.

Storage between 10 °C and 25 °C.

- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions:

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

(Contd. on page 4)

Trade name: anaxblend pekk bond

(Contd. of page 3)

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:					
80-62-6 methyl methacrylate					
OEL (Ireland)	Short-term value: 100 ppm Long-term value: 50 ppm IOELV, Sens				
WEL (Great Britain)	Short-term value: 416 mg/m³, 100 ppm Long-term value: 208 mg/m³, 50 ppm				
PEL (USA)	Long-term value: 410 mg/m³, 100 ppm				
REL (USA)	Long-term value: 410 mg/m³, 100 ppm				
TLV (USA)	Short-term value: 100 ppm Long-term value: 50 ppm DSEN, A4				
IOELV (European Union)	Short-term value: 100 ppm Long-term value: 50 ppm				

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see section 7.
- · Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- · Respiratory protection: Not necessary if room is well-ventilated.
- · Hand protection Protective gloves.
- · Material of gloves

Butyl rubber, BR

Nitrile rubber, NBR

· Penetration time of glove material

0.3 mm

Penetration time 60 min.

0,11 mm

Penetration time 10 min.

· Eye/face protection Safety glasses

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

Physical state
Colour:
Odour:
Odour threshold:
Fluid
Clear
Ester-like
Not determined.

· Melting point/freezing point: -48 °C · Boiling point or initial boiling point and boiling

range 101 °C
• Flammability Not applicable.

(Contd. on page 5)

Printing date 23.12.2024 Version: 2 Revision: 23.12.2024

Trade name: anaxblend pekk bond

(Contd. of page 4)

· Lower and upper explosion limit

 · Lower:
 2.1 Vol %

 · Upper:
 12.5 Vol %

 · Flash point:
 10 °C

 · Auto-ignition temperature:
 430 °C

· **Decomposition temperature:** Not determined.

• pH Mixture is non-soluble (in water).

Not determined.

· Viscosity:

Kinematic viscosity
 Not determined
 Not determined
 Not determined

Not determined.

·Solubility

• Water: Not determined
• Partition coefficient n-octanol/water (log value)
• Vapour pressure at 20 °C: Not determined.
47 hPa

· Density and/or relative density

Density: Not determined
 Relative density Not determined.
 Vapour density Not determined.

9.2 Other information

· Appearance:

· Form: Fluid · Important information on protection of health and

environment, and on safety.

• Ignition temperature: Product is not selfigniting.

Explosive properties: Product is not explosive. However, formation of

explosive air/vapour mixtures are possible.

· Solvent content:

• Organic solvents: 0.0 %

· Change in condition

• Evaporation rate Not determined.

· Information with regard to physical hazard classes

Explosives Void
Flammable gases Void
Aerosols Void
Oxidising gases Void
Gases under pressure Void

· Flammable liquids Highly flammable liquid and vapour.

Flammable solids
 Self-reactive substances and mixtures
 Pyrophoric liquids
 Pyrophoric solids
 Self-heating substances and mixtures
 Substances and mixtures, which emit flammable

Substances and mixtures, which emit flammable gases in contact with water

Oxidising liquids
Oxidising solids
Organic peroxides
Corrosive to metals
Void
Desensitised explosives

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

(Contd. on page 6)

Printing date 23.12.2024 Version: 2 Revision: 23.12.2024

Trade name: anaxblend pekk bond

(Contd. of page 5)

- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials:

In presence of radical formers (e. g. peroxides), deoxidizing substances, and/or heavy metal ions, polymerization with heat release is possible.

· 10.6 Hazardous decomposition products: No dangerous decomposition products known

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.
- · LD/LC50 values relevant for classification:

 $methyl \ methacrylate \qquad LD\text{-}50 \ oral \qquad >5000 \ mg/kg \ rat \ (lit.)$

LD-50 inhalativ 7093 ppm/4h rat (lit.)

- · Primary irritant effect:
- · Skin corrosion/irritation Causes skin irritation.
- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation May cause an allergic skin reaction.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure May cause respiratory irritation.
- · 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
- · Endocrine disrupting properties

128-37-0 Butylated hydroxytoluene

List II

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Type of test Effective concentration Method Assessment

Toxicity to fish: LC-50: >79 mg/l OECD 203 (MMA) NOEC: 40 mg/l ISO 7346

Time: 96 h EEC84

Species:

Oncorhynchus mykiss

Toxicity to Micro- ECO: 100 mg/l starting inhibition

Organisms Species: of cell growth

(MMA) Pseudomonas putida

- · 12.2 Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Components:

methyl methacrylate Biodegradability: 30,7 %

Time: 28 d

Method: OECD 301 C

Valuation: difficult to decompose

- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

(Contd. on page 7)

Trade name: anaxblend pekk bond

(Contd. of page 6)

- 12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11.
- · 12.7 Other adverse effects
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must be specially treated adhering to official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

07 01 04* other organic solvents, washing liquids and mother liquors

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

OF CTION:	14	 T	 C	C
SECTION 1	Z)	<i>ransmor</i>	commu	uon

· 14.1 UN number or ID number · ADR, IMDG, IATA	UN1247
· 14.2 UN proper shipping name · ADR	1247 METHYL METHACRYLATE MONOMER, STABILIZED, ENVIRONMENTALLY HAZARDOUS
· IMDG	METHYL METHACRYLATE MONOMER, STABILIZED, MARINE POLLUTANT
· IATA	METHYL METHACRYLATE MONOMER, STABILIZED

- · 14.3 Transport hazard class(es)
- $\cdot ADR$



· Class
· Label
3 (F1) Flammable liquids.
3

· IMDG



ClassLabel3 Flammable liquids.3

(Contd. on page 8)

Trade name: anaxblend pekk bond

	(Contd. of page
· IATA	
· Class · Label	3 Flammable liquids.
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR):	Product contains environmentally hazardous substances di-urethane dimethacrylate No Symbol (fish and tree) Symbol (fish and tree)
14.6 Special precautions for user Hazard identification number (Kemler code): EMS Number: Stowage Category Stowage Code	Warning: Flammable liquids. 33 F-E,S-D C SW1 Protected from sources of heat. SW2 Clear of living quarters.
· 14.7 Maritime transport in bulk according to IM instruments	10 Not applicable.
Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
Transport category	2

D/E

1L

Code: E2

HAZARDOUS

Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

UN 1247 METHYL METHACRYLATE MONOMER, STABILIZED, 3, II, ENVIRONMENTALLY

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU

· Tunnel restriction code

· Limited quantities (LQ)

· Excepted quantities (EQ)

· UN "Model Regulation":

- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category

E2 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

- Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

(Contd. on page 9)

Trade name: anaxblend pekk bond

(Contd. of page 8)

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

- · REGULATION (EU) 2019/1148
- · Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

- · National regulations
- · Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- · Other regulations, limitations and prohibitive regulations
- · Substances of very high concern (SVHC) according to REACH, Article 57

75980-60-8 diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This Safety Data Sheets is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H361f Suspected of damaging fertility.

H411 Toxic to aquatic life with long lasting effects.

- · Department issuing SDS: R&D, MANI MEDICAL GERMANY GmbH
- · Contact: Fr. R.Naveenakumar
- · Date of previous version: 21.03.2024
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international 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 Harmonised 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 (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

(Contd. on page 10)

Page 10/10

Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Version: 2 Printing date 23.12.2024 Revision: 23.12.2024

Trade name: anaxblend pekk bond

(Contd. of page 9)

Skin Sens. 1: Skin sensitisation – Category 1 Skin Sens. 1B: Skin sensitisation - Category 1B
Repr. 2: Reproductive toxicity - Category 2
STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard — Category 2 * Data compared to the previous version altered.