

## Material Safety Data Sheet

Trade name: **anaxBLEND bond LC**

Printing date 10.11.2010

Version 1



### 1 Identification of substance:

- **Product details:**
- **Trade name:** anaxBLEND bond LC
- **Article number:** 20700006
- **Application of the substance / the preparation:** Dental bonding material
- **Manufacturer / Supplier:**  
anax dent GmbH Olgastrasse 120A D-70180 Stuttgart  
Tel. 0049 711 620092.0 Fax 0049 711 620092.29
- **Further information obtainable from:** Andreas Kopietz  
e-mail: akopietz@anaxdent.com

### 2 Hazard description







Xi Irritant; F Highly Flammable

- **Information concerning to particular hazards to man and environment:**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
R 11 Highly flammable.  
R 37/38 Irritating to respiratory system and skin.  
R 43 May cause sensitization by skin contact.
- **Classification system**  
The classification is according to the latest editions of the EU-lists, end extended by company and literature data.
- **GHS label elements**
  -  **Danger**  
H225 – Highly flammable liquid and vapour.
  -  **Warning**  
H315 – Causes skin irritation.  
H317 – May cause an allergic skin reaction.  
H335 – May cause respiratory irritation.
- **Prevention:**  
P210 – Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
P241 – Use explosion-proof electrical/ventilating/lighting/equipment.
- **Response:**  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.  
Rinse skin with water/shower.  
P321 – Specific treatment (see on this label).
- **Storage:**  
P405 – Store locked up.
- **Disposal:**  
P501 – Dispose of contents/container in accordance with local/regional/national/international regulations.

### 3 Composition / information on ingredients:

#### Chemical characterization

- **Description:** Mixture of substances listed below with nonhazardous additions.
- **Dangerous components:**

CAS: 80-62-6 EINECS: 201-297-1	methyl methacrylate	 Xi,  F; R 11-37/38-43	50-75%
		Danger:  2.6/2	
		Warning:  3.2/2, 3.4.S/1, 3.8/3	

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<ul style="list-style-type: none"><li>• <b>Additional information:</b> For the wording of the listed risk phrases refer to section 16.</li></ul>						
<b>4 First aid measures</b> <ul style="list-style-type: none"><li>• <b>General information:</b> Immediately remove any clothing soiled by the product.</li><li>• <b>After inhalation:</b> Supply fresh air; consult doctor in case of complaints.</li><li>• <b>After skin contact:</b> Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.</li><li>• <b>After eye contact:</b> Rinse opened eye for several minutes under running water. Then consult a doctor.</li><li>• <b>After swallowing:</b> Call a doctor immediately.</li></ul>						
<b>5 Fire fighting measures</b> <ul style="list-style-type: none"><li>• <b>Suitable extinguishing agents:</b> Fire-extinguishing powder, Foam, Carbon dioxide , Water spray.</li><li>• <b>For safety reasons unsuitable extinguishing agents:</b> Water with full jet.</li><li>• <b>Protective equipment:</b> Wear self-contained respiratory protective device. Wear fully protective suit.</li></ul>						
<b>6 Accidental release measures</b> <ul style="list-style-type: none"><li>• <b>Person-related safety precautions:</b> Ensure adequate ventilation. Keep away from ignition sources. Wear protective clothing.</li><li>• <b>Measures for environmental protection:</b> Do not allow product to enter sewers/surface or ground water.</li><li>• <b>Measures for cleaning/collecting:</b> Pick up mechanically. When pumping out, please ensure grounding. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of the material collected according to regulations.</li></ul>						
<b>7 Handling and storage</b> <p><b>Handling</b></p> <ul style="list-style-type: none"><li>• <b>Information for safe handling:</b> Keep receptacles tightly sealed. Ensure good ventilation/exhaustion at the workplace.</li><li>• <b>Information about fire - and explosion protection:</b> Keep ignition sources away - Do not smoke. Protect against electrostatic charges.</li></ul> <p><b>Storage</b></p> <ul style="list-style-type: none"><li>• <b>Requirements to be met by storerooms and receptacles:</b> Store in a cool location. Close container immediately after use and protect product from light incidence.</li><li>• <b>Information about storage in one common storage facility:</b> not required.</li><li>• <b>Further information about storage conditions:</b> Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacles.</li></ul>						
<b>8 Exposure controls and personal protection gear</b> <ul style="list-style-type: none"><li>• <b>Additional information about design of technical facilities:</b> No further data; see item 7.</li></ul> <table border="1"><tr><td colspan="2"><b>Ingredients with limit values that require monitoring at the workplace:</b></td></tr><tr><td colspan="2">80-62-6 methyl methacrylate</td></tr><tr><td>OES</td><td>Short-term value: 416 mg/m<sup>3</sup>, 100 ppm Long-term value: 208 mg/m<sup>3</sup>, 50 ppm</td></tr></table> <ul style="list-style-type: none"><li>• <b>Additional information:</b> The lists valid during the making were used as basis.</li><li>• <b>Personal protective equipment</b></li><li>• <b>General protective and hygienic measures:</b></li></ul>	<b>Ingredients with limit values that require monitoring at the workplace:</b>		80-62-6 methyl methacrylate		OES	Short-term value: 416 mg/m <sup>3</sup> , 100 ppm Long-term value: 208 mg/m <sup>3</sup> , 50 ppm
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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:** In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:** Protective gloves.
- **Material of gloves:** Butyl rubber, BR
- **Penetration time of glove material:** The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

### 9 Physical and chemical properties:

- **General information**
  - Form: Fluid
  - Colour: Clear
  - Odour: Ester-like
- **Change in condition**
  - Melting point / Melting range: -48°C
  - Boiling point / Boiling range: ca. 100°C
- **Flash point:** 10°C
- **Ignition temperature:** 430 °C
- **Self-igniting:** Product is not self-igniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air / vapour mixtures are possible.
- **Explosion limits:**
  - Lower: 2,1 Vol. %
  - Upper: 12,5 Vol. %
- **Density at 20°C:** Not determined
- **Solubility in / Miscibility with water:** Not determined
- **Viscosity:** Not determined

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Materials to be avoided:** In presence of radical formers ( e. g. peroxides), deoxidizing substances, and/or heavy metal ions, polymerization with heat release is possible.
- **Dangerous reactions:** No dangerous reactions known.
- **Dangerous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Acute toxicity:**

LD/LC50 values relevant for classification:		
80-62-6 methyl methacrylate		
oral	LD50	>5 000 mg/kg (rat)
inhalativ	LD50	7093 ppm/4h rat (Lit.)

- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

Irritant
- **Sensitization:** May cause sensitization by skin contact.

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## 12 Ecological information:

- **Behaviour in environmental systems:**

**Components:**

methyl methacrylate Biodegradability: 30,7 %

Time: 28 d

Method: OECD 301 C

Valuation: difficult to decompose

- **Ecotoxic effects:**

- **Acquatic toxicity:**

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-organisms (MMA) ECO: 100 mg/l starting inhibition of cell growth  
Species: Pseudomonas putida

- **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.

## 13 Disposal considerations

- **Product:**
- **Recommendation:** Must be specially treated adhering to official regulations.
- **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.

## 14 Transport information

- **Land transport ADR/RID (cross-border)**



ADR/RID class: 3 (F1) Flammable liquids.

Danger code (Kemler): 339

UN-Number: 1247

Packaging group: II

Hazard label 3

Description of goods: 1247 METHYL METHACRYLATE MONOMER, STABILIZED, mixture

- **Maritime transport IMDG:**



IMDG Class: 3

UN Number: 1247

Label 3

Packaging group: II

EMS Number: F-E,S-D

Marine pollutant: No

Proper shipping name: METHYL METHACRYLATE MONOMER, STABILIZED, mixture

- **Air transport ICAO-TI and IATA-DGR:**



ICAO/IATA Class: 3

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UN/ID Number: 1247

Label 3

Packaging group: II

Proper shipping name: METHYL METHACRYLATE MONOMER, STABILIZED, mixture

- **UN "Model Regulation":** UN 1247, METHYL METHACRYLATE MONOMER, STABILIZED, mixture, 3,II

## 15 Regulations

- **Labelling according to EU guidelines:**  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials
- **Code letter and hazard designation of product:**  
Xi Irritant  
F Highly flammable
- **Hazard-determining components of labelling:** methyl methacrylate
- **Risk phrases:**  
11 Highly flammable.  
37/38 Irritating to respiratory system and skin.  
43 May cause sensitization by skin contact.
- **Safety phrases:**  
9 Keep container in a well-ventilated place.  
16 Keep away from sources of ignition - No smoking.  
23 Do not breathe gas/fumes/vapour/ spray.  
24 Avoid contact with skin.  
37 Wear suitable gloves.  
60 This material and its container must be disposed of as hazardous waste.
- **National regulations**
- **Technical instructions (air):**

Class	Share in %
NK	50-75
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

## 16 Other information:

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 R-phrases**  
11 Highly flammable.  
37/38 Irritating to respiratory system and skin.  
43 May cause sensitization by skin contact.
- **Department issuing MSDS:** anax dent GmbH
- **Contact:** Mr. Andreas Kopietz
- **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)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent
- **\*Data compared to the previous version altered.**

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