

Safety Data Sheet

according to 1907/2006/EC, Article 31

SECTION 1:

Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

· Trade name: New Outline Liquid · Article number: 16021100 - 16018500

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: Manufacture of dental prothesis

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

anax dent GmbH, Dreifelderstraße 5, 70599 Stuttgart Tel.: +49 711 620092-0, Fax: +49 711 620092-29 e-mail: info@anaxdent.com

1.4 Emergency telephone number: +49 711 620092-0

SECTION 2:

Hazards identification

2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

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

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 3 H412 Harmful 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

tetramethylene dimethacrylate

Hazard statements:

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effect.

· 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.

P261 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.

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

tetramethylene dimethacrylate

· 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**: Liquid based on methacryl acid ester, containing an activator, used for the production of temporary crowns and bridges in dental medicine.

Dangerous components:		
CAS: 80-62-6 EINECS: 201-297-1	methyl methacrylate Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens 1, H317; STOT SE 3, H335	50-75%
CAS: 41137-60-4	di-urethane dimethacrylate Aquatic Chronic 2, H411; Skin Sens. 1B, H317	10-25%
CAS: 2082-81-7	tetramethylene dimethacrylate	2.5-10%
EINECS: 218-218-1	Skin Sens. 1B, H317	

· 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

- After inhalation: Supply fresh air; consultdoctor in case of complaints.
- After skin contact: If skin irritation continues, consult a doctor.Immediately wash with water and soap and rinse thoroughly.
- $\hbox{\bf \cdot After eye contact: } Rinse \ opened \ eye \ for \ several \ minutes \ under \ running \ water. \ Then \ consult \ a \ doctor.$
- · After swallowing: Rinse out mouth and then drink plenty of water. Call a doctor immediately.
- 4.2 Most important symptoms and effects, both acute and delayed: No further relevant information available.
- 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:

Carbon dioxide

Fire-extinguishing powder

Foam

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.

SECTION 6:

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

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:

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

Dispose contaminated material as waste according to item 13.

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.

Prevent formation of aerosols.

Information about fire - and explosion protection:

Fumes can combine with air to form an explosive mixture.

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:

Storage between 10 °C and 25 °C.

 \cdot Information about storage in one common storage facility:

Store away from foodstuffs.

· Further information about storage conditions:

Protect from exposure to the light.

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· Storage class: Not determined

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		
WEL	Short-term value: 416 mg/m3, 100 ppm Long-term value: 208 mg/m3, 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 item 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.

Use suitable respiratory protective device when high concentrations are present.

Filter A

· Protection of hands:

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:

Tightly sealed goggles.

SECTION 9:

Physical and chemical properties

9.1 Information on basic physical and chemical properties

· General Information

• Physical state: Fluid• Colour: Clear

Odour: CharacteristicOdour threshold: Not determined.

· Melting point/freezing point: -48 °C

 \cdot Boiling point or initial boiling point

and boiling range: 101 °C

⋅ Flammability Not applicable.

 \cdot Explosion limits:

Lower: 2,1 Vol % (Literatur)
 Upper: 12,5 Vol % (Literatur)
 Flash point: 10 °C (DIN 51755)
 Ignition temperature: 430 °C (DIN 51794)
 Decomposition temperature: Not determined.

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

Not determined

· Viscosity:

Kinematic viscosity: Not determined.dynamic: Not determined.

Solubility

• Water: Not miscible or difficult to mix

(log value) Not determined.

• Vapour pressure at 20 °C: 47 hPa

Vapour pressure at 20 °C:
 Density and/or relative density

· Partition coefficient: n-octanol/water

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.

• Auto-ignition temperature: Product is not selfigniting.

• Explosive properties: Product is not explosive. However, formation of explosive air/ vapour mixtures are possible.

· Change in condition

Evaporation rate
 Information with regard to physical hazard classes
 Explosives
 Flammable gases
 Aerosols
 Oxidising gases
 Gases under pressure
 Not determined
 Void
 Void
 Void

• Flammable liquids Highly flammable liquid and vapour.

· Flammable solids Void · Self-reactive substances and mixtures Void · Pyrophoric liquids Void · Pyrophoric solids Void · Self-heating substances and mixtures Void · Substances and mixtures, which emit flammable gases in contact with water Void · Oxidising liquids Void Void · Oxidising solids Void · Organic peroxides · Corrosive to metals Void · Desensitised explosives Void

SECTION 10:

Stability and reactivity

10.1 Reactivity: No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions:

Exothermic polymerization.

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: -

SECTION 11:

Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

- · Acute toxicity.
- · LD/LC50 values relevant for classification:

methyl methacrylat LD-50 oral >5000 mg /kg rat (lit.)

LD-50 inhalativ 7093 ppm/4h rat (Lit.) LD-50 oral >5000 mg/kg (rat)

tetramethylene dimethacrylate LD-50 oral >5000 m
• Skin corrosion/irritation Causes skin irritation.

Respiratory or skin sensitisation
 STOT-single exposure
 May cause an allergic skin reaction.
 May cause respiratory irritation.

11.2 Information on other hazards

- · Endocrine disrupting properties
- \cdot None of the ingredients is listed.



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-Organisms ECO: 100 mg/l starting inhibition

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.

12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.70ther adverse effects

- · Remark: Harmful to 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.

Harmful to aquatic organisms

SECTION 13:

Disposal considerations

13.1 Waste treatment methods

· Recommendation:

After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste. Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
- · Recommendation:

Disposal must be made according to official regulations.

SECTION 14:

Transport information

14.1 UN-Number or ID number

· ADR, IMDG, IATA: UN1247

14.2 UN proper shipping name

• ADR 1 2 4 7 METHYL METHACRYLATE MONOMER, STABILIZED mixture



· IMDG, IATA METHYL METHACRYLATE MONOMER, STABILIZED mixture

14.3 Transport hazard class(es)

· ADR



· Class 3 (F1) Flammable liquids.

· Label 3

· IMDG, IATA



· Class 3 Flammable liquids.

· Label 3

14.4 Packing group

· ADR, IMDG, IATA

14.5 Environmental hazards:

· Marine pollutant: No

14.6 Special precautions for user Warning: Flammable liquids.

· Hazard identification number

(Kemler code): 33

• EMS Number: F-E,S-D

• Stowage Category C

• Stowage Code SW1 Protected from sources of heat; SW2 Clear of living quarters.

14.7 Maritime transport in bulk according to IMO

instruments Not applicable.

 $\cdot \ Transport/Additional \ information:$

· ADR

Limited quantities (LQ)
 Excepted quantities (EQ)
 Code: E2

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

• Transport category 2
• Tunnel restriction code D/E

·IMDG

Limited quantities (LQ)Excepted quantities (EQ)Code: E2

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

· UN 1247 METHYL METHACRYLATE MONOMER,

STABILIZED MIXTURE, 3, II

SECTION 15:

Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category P5c FLAMMABLE LIQUIDS
- \cdot Qualifying quantity (tonnes) for the application of lower-tier requirements $5,\!000\;t$
- \cdot Qualifying quantity (tonnes) for the application of upper-tier requirements $50,\!000~t$
- · National regulations
- ·Technical instructions (air):

 Class
 III

 Share in %
 2,5-10

· Substances of very high concern (SVHC) according to REACH, Article 57

25973-55-1 2-(2H-benzotriazol-2-yl)-4,6-di-tert-pentylphenol

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.



SECTION 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 phrases

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.

· Department issuing SDS: anax dent GmbH

· 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 GoodsIATA: 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

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

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

 $A quatic\ Chronic\ 3:\ Hazardous\ to\ the\ aquatic\ environment\ -\ long\ -term\ aquatic\ hazard\ -\ Category\ 3$

 \cdot * Data compared to the previous version altered.