

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****MD-Megabond 3000 Part A**
Article number: MMB.3**1.2 Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Relevant uses**

See product information.

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company	Marston Domsel GmbH Bergheimer Str. 15 53909 Zülpich / GERMANY Phone +49 (0) 22 52 94 15 0 Fax +49 (0) 22 52 17 44 Homepage www.marston-domsel.de E-mail info@marston-domsel.de
----------------	--

Address enquiries to**Technical information** info@marston-domsel.de**Safety Data Sheet** sdb@chemiebuero.de**1.4 Emergency telephone number****SECTION 2: Hazards identification****2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]**

Eye Irrit. 2: H319 Causes serious eye irritation.
 Skin Sens. 1: H317 May cause an allergic skin reaction.
 Skin Irrit. 2: H315 Causes skin irritation.
 Aquatic Acute 1: H400 Very toxic to aquatic life.
 Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

Hazard pictograms**Signal word**

WARNING

Contains:

Dibenzoyl peroxide

Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight ≤ 700)

Hazard statements

H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H315 Causes skin irritation.
 H400 Very toxic to aquatic life.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P280 Wear protective gloves / eye protection / face protection.
 P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 If eye irritation persists: Get medical advice / attention.
 P501 Dispose of contents/container in accordance with local/national regulation.

Special labelling

EUH205 Contains epoxy constituents. May produce an allergic reaction.



2.3 Other hazards

Human health dangers

People who are allergic to epoxide should avoid the use of the product.
People who are allergic to peroxide should avoid the use of the product.

Other hazards

Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients**Product-type:**

The product is a mixture.

Range [%]	Substance
10 - 15	Oxydipropyl dibenzoate
	CAS: 27138-31-4, EINECS/ELINCS: 248-258-5
	GHS/CLP: Aquatic Chronic 2: H411
10 - 15	Dibenzoyl peroxide
	CAS: 94-36-0, EINECS/ELINCS: 202-327-6, EU-INDEX: 617-008-00-0
	GHS/CLP: Org. Perox. B: H241 - Eye Irrit. 2: H319 - Skin Sens. 1: H317 - Aquatic Acute 1: H400, M = 10
5 - 15	Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight \leq 700)
	CAS: 25068-38-6, EINECS/ELINCS: 500-033-5, EU-INDEX: 603-074-00-8
	GHS/CLP: Eye Irrit. 2: H319 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Aquatic Chronic 2: H411

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated soaked clothing immediately and dispose of safely.

Inhalation

Ensure supply of fresh air.
In the event of symptoms seek medical treatment.

Skin contact

In case of contact with skin wash off immediately with soap and water.
Consult a doctor if skin irritation persists.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Ingestion

Consult a doctor immediately.
Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.

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.
Forward this sheet to the doctor.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

foam, dry powder, water spray jet, carbon dioxide

Extinguishing media that must not be used

Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.

**5.3 Advice for firefighters**

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Keep away from all sources of ignition.

Ensure adequate ventilation.

High risk of slipping due to leakage/spillage of product.

Use personal protective clothing.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically.

Take up residues with absorbent material (e.g. sand).

Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Use only in well-ventilated areas.

Keep away from sources of ignition - refrain from smoking.

Do not eat, drink or smoke when using this product.

Contaminated work clothing should not be allowed out of the workplace.

After worktime and before work breaks the affected skin areas must be thoroughly cleaned.

Use barrier skin cream.

Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Do not store together with oxidizing agents.

Keep container tightly closed.

Keep container in a well-ventilated place.

Protect from heat/overheating.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection**8.1 Control parameters**

Ingredients with occupational
exposure limits to be monitored (GB)

Substance
Dibenzoyl peroxide
CAS: 94-36-0, EINECS/ELINCS: 202-327-6, EU-INDEX: 617-008-00-0
Long-term exposure: 5 mg/m ³

**8.2 Exposure controls**

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	Safety glasses. (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact: > 0,4 mm: Butyl rubber, >480 min (EN 374-1/-2/-3). In splash contact: > 0,4 mm: Butyl rubber, >120 min (EN 374-1/-2/-3).
Skin protection	Light protective clothing.
Other	Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. Do not inhale vapours. Avoid contact with eyes and skin.
Respiratory protection	Respiratory protection mask in the event of high concentrations. Short term: filter apparatus, filter AX (DIN EN 14387).
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Comply with applicable environmental regulations limiting discharge to air, water and soil.

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

Form	viscous pasty
Color	No information available.
Odor	characteristic
Odour threshold	No information available.
pH-value	No information available.
pH-value [1%]	not applicable
Boiling point [°C]	No information available.
Flash point [°C]	204
Flammability (solid, gas) [°C]	No information available.
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	1,07
Bulk density [kg/m³]	not applicable
Solubility in water	immiscible
Partition coefficient [n-octanol/water]	No information available.
Relative vapour density determined in air	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Autoignition temperature [°C]	No information available.
Decomposition temperature [°C]	No information available.

9.2 Other information

none



SECTION 10: Stability and reactivity

10.1 Reactivity

See SECTION 10.3.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with strong alkalis and oxidizing agents.

Reactions with strong acids.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

See SECTION 10.3.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Substance
Oxydipropyl dibenzoate, CAS: 27138-31-4
LD50, dermal, Rabbit: > 2000 mg/kg.
LD50, oral, Rat: > 2500 mg/kg.
LC50, inhalative, Rat: > 200 mg/l (4h).
Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight ≤ 700), CAS: 25068-38-6
LD50, dermal, Rat: > 2000 mg/kg.
LD50, oral, Rat: > 2000 mg/kg.
LC50, inhalative, Rat: > 100 mg/l.
Dibenzoyl peroxide, CAS: 94-36-0
LD50, oral, Rat: >5000 mg/kg (78%) (Lit.).
LC50, inhalative, Rat: >24300 mg/m ³ dust (78%)(Lit.).

Serious eye damage/irritation	Toxicological data of complete product are not available. Irritant Calculation method
Skin corrosion/irritation	Toxicological data of complete product are not available. Irritant Calculation method
Respiratory or skin sensitisation	Toxicological data of complete product are not available. May cause an allergic skin reaction. Calculation method
Specific target organ toxicity — single exposure	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — repeated exposure	Based on the available information, the classification criteria are not fulfilled.
Mutagenicity	Based on the available information, the classification criteria are not fulfilled.
Reproduction toxicity	Based on the available information, the classification criteria are not fulfilled.
Carcinogenicity	Based on the available information, the classification criteria are not fulfilled.
Aspiration hazard	Based on the available information, the classification criteria are not fulfilled.
General remarks	Toxicological data of complete product are not available.

**SECTION 12: Ecological information****12.1 Toxicity**

Substance
Oxydipropyl dibenzoate, CAS: 27138-31-4
LC50, (96h), Pimephales promelas: 3,7 mg/l.
EC50, (48h), Daphnia magna: 19,3 mg/l.
IC50, (72h), Algae: 15 mg/l.
Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight ≤ 700), CAS: 25068-38-6
LC50, (96h), fish: 3,6 mg/l.
EC50, (96h), Algae: 220 mg/l.
EC50, (48h), Daphnia magna: 2,8 mg/l.
Dibenzoyl peroxide, CAS: 94-36-0
LC50, (96h), fish: 0,06 mg/l (78%) (Lit.).
EC50, (72h), Algae: 0,06 mg/l (78%) (Lit.).
EC50, (48h), Daphnia magna: 0,11 mg/l (78%) (Lit.).

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	not determined

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

Ecological data of complete product are not available.

The product contains organically bounded halogen.

It can contribute to the adsorbable organic halogen value in the effluent from sewage treatment plants.

Do not discharge product unmonitored into the environment or into the drainage.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.
Disposal in an incineration plant in accordance with the regulations of the local authorities.

Waste no. (recommended) 080409*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended) 150110*

SECTION 14: Transport information**14.1 UN number**

Transport by land according to ADR/RID 3082

Inland navigation (ADN) 3082

Marine transport in accordance with IMDG 3082

Air transport in accordance with IATA 3082

**14.2 UN proper shipping name**

Transport by land according to ADR/RID

Environmentally hazardous substance, liquid, n.o.s. (Dibenzoyl peroxide)

- Classification Code

M6

- Label



- ADR LQ

5 I

- ADR 1.1.3.6 (8.6)

Transport category (tunnel restriction code) 3 (E)

Inland navigation (ADN)

Environmentally hazardous substance, liquid, n.o.s. (Dibenzoyl peroxide)

- Classification Code

M6

- Label



Marine transport in accordance with IMDG

Environmentally hazardous substance, liquid, n.o.s. (Dibenzoyl peroxide)

- EMS

F-A, S-F

- Label



- IMDG LQ

5 I

Air transport in accordance with IATA

Environmentally hazardous substance, liquid, n.o.s. (Dibenzoyl peroxide)

- Label

**14.3 Transport hazard class(es)**

Transport by land according to ADR/RID

9

Inland navigation (ADN)

9

Marine transport in accordance with IMDG

9

Air transport in accordance with IATA

9

14.4 Packing group

Transport by land according to ADR/RID

III

Inland navigation (ADN)

III

Marine transport in accordance with IMDG

III

Air transport in accordance with IATA

III

**14.5 Environmental hazards**

Transport by land according to ADR/RID yes

Inland navigation (ADN) yes

Marine transport in accordance with IMDG MARINE POLLUTANT

Air transport in accordance with IATA yes

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

EEC-REGULATIONS 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONS DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2018).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).

- Observe employment restrictions for people Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.

- VOC (2010/75/CE) < 4%

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**16.1 Hazard statements (SECTION 03)**

H411 Toxic to aquatic life with long lasting effects.

H315 Causes skin irritation.

H400 Very toxic to aquatic life.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H241 Heating may cause a fire or explosion.

**16.2 Abbreviations and acronyms:**

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 ATE = acute toxicity estimate
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 ELINCS = European List of Notified Chemical Substances
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 LC0 = lethal concentration, 0%
 LOAEL = lowest-observed-adverse-effect level
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 NOAEL = No Observed Adverse Effect Level
 NOEC = No Observed Effect Concentration
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 STP = Sewage Treatment Plant
 TLV@/TWA = Threshold limit value – time-weighted average
 TLV@STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.3 Other information**Customs Tariff**

not determined

Classification procedure

Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)
 Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
 Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
 Aquatic Acute 1: H400 Very toxic to aquatic life. (Calculation method)
 Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

Modified position

none

Copyright: Chemiebüro®

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****MD-Megabond 3000 Part B**
Article number: MMB.3**1.2 Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Relevant uses**Adhesive
Resin**1.2.2 Uses advised against**

None known.

1.3 Details of the supplier of the safety data sheet**Company** Marston Domsel GmbH
Bergheimer Str. 15
53909 Zülpich / GERMANY
Phone +49 (0) 22 52 94 15 0
Fax +49 (0) 22 52 17 44
Homepage www.marston-domsel.de
E-mail info@marston-domsel.de**Address enquiries to****Technical information** info@marston-domsel.de**Safety Data Sheet** sdb@chemiebuero.de**1.4 Emergency telephone number****Advisory body** +49 (0)89-19240 (24h) (English)**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]**Flam. Liq. 2: H225 Highly flammable liquid and vapour.
Eye Irrit. 2: H319 Causes serious eye irritation.
Skin Irrit. 2: H315 Causes skin irritation.
STOT SE 3: H335 May cause respiratory irritation.
Skin Sens. 1: H317 May cause an allergic skin reaction.



2.2 Label elements

The product is classified and required to be labelled in accordance with EC-Directives

Hazard pictograms**Signal word**

DANGER

Contains:Methyl methacrylate
2-Hydroxyethyl methacrylate
Butyl methacrylate
Methacrylic acid**Hazard statements**H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H335 May cause respiratory irritation.
H317 May cause an allergic skin reaction.**Precautionary statements**P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / eye protection / face protection.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/national regulation.

2.3 Other hazards

Other hazards

Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

Product-type:

The product is a mixture.

Range [%]	Substance
50 - 60	Methyl methacrylate CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6 GHS/CLP: Flam. Liq. 2: H225 - STOT SE 3: H335 - Skin Irrit. 2: H315 - Skin Sens. 1: H317
20 - 30	2-Hydroxyethyl methacrylate CAS: 868-77-9, EINECS/ELINCS: 212-782-2, EU-INDEX: 607-124-00-X GHS/CLP: Eye Irrit. 2: H319 - Skin Sens. 1: H317 - Skin Irrit. 2: H315
1 - 10	Butyl methacrylate CAS: 97-88-1, EINECS/ELINCS: 202-615-1, EU-INDEX: 607-033-00-5 GHS/CLP: Flam. Liq. 3: H226 - Eye Irrit. 2: H319 - STOT SE 3: H335 - Skin Irrit. 2: H315 - Skin Sens. 1: H317
1 - < 3	Methacrylic acid CAS: 79-41-4, EINECS/ELINCS: 201-204-4, EU-INDEX: 607-088-00-5 GHS/CLP: Acute Tox. 4: H302 - Acute Tox. 3: H311 - Skin Corr. 1A: H314 - STOT SE 3: H335
1 - < 3	2-Propen acid, 2-Methyl-, 2-Hydroxyethylester, Phosphate CAS: 52628-03-2, EINECS/ELINCS: 258-053-2 GHS/CLP: Eye Dam. 1: H318 - Skin Irrit. 2: H315

Comment on component partsSubstances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

General information	Remove contaminated soaked clothing immediately and dispose of safely.
Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
Skin contact	In case of contact with skin wash off immediately with soap and water. Consult a doctor if skin irritation persists.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Consult a doctor immediately. Do not induce vomiting. Rinse out mouth and give plenty of water to drink.

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 neededTreat symptomatically.
Forward this sheet to the doctor.**SECTION 5: Fire-fighting measures****5.1 Extinguishing media**

Suitable extinguishing media	Carbon dioxide. Water spray jet. Dry powder. Foam.
Extinguishing media that must not be used	Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.

5.3 Advice for firefightersUse self-contained breathing apparatus.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.
Cool containers at risk with water spray jet.**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**Keep away from all sources of ignition.
Ensure adequate ventilation.
High risk of slipping due to leakage/spillage of product.
Use personal protective clothing.**6.2 Environmental precautions**Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.**6.3 Methods and material for containment and cleaning up**Take up mechanically.
Take up residues with absorbent material (e.g. sand).
Dispose of absorbed material in accordance with the regulations.**6.4 Reference to other sections**

See SECTION 8+13

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Use only in well-ventilated areas.

Vacuuuming in situ required.

Vapours can form an explosive mixture with air.

Keep away from all sources of ignition - Refrain from smoking.

Ignitable mixtures can be formed in the empty container.

Take precautionary measures against static discharges.

Do not eat, drink or smoke when using this product.

Contaminated work clothing should not be allowed out of the workplace.

After worktime and before work breaks the affected skin areas must be thoroughly cleaned.

Use barrier skin cream.

Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Do not store together with oxidizing agents.

Keep container tightly closed.

Keep container in a well-ventilated place.

Protect from heat/overheating.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection**8.1 Control parameters****Ingredients with occupational exposure limits to be monitored (GB)**

Substance
Methyl methacrylate
CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6
Long-term exposure: 50 ppm, 208 mg/m ³
Short-term exposure (15-minute): 100 ppm, 416 mg/m ³
Methacrylic acid
CAS: 79-41-4, EINECS/ELINCS: 201-204-4, EU-INDEX: 607-088-00-5
Long-term exposure: 20 ppm, 72 mg/m ³
Short-term exposure (15-minute): 40 ppm, 143 mg/m ³

Ingredients with occupational exposure limits to be monitored (EU)

Substance / EC LIMIT VALUES
Methyl methacrylate
CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6
Eight hours: 50 ppm
Short-term (15-minute): 100 ppm

**8.2 Exposure controls**

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	Safety glasses. (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact: >0,4 mm: Butyl rubber, >480 min (EN 374-1/-2/-3). In splash contact: >0,4 mm: Butyl rubber, >120 min (EN 374-1/-2/-3).
Skin protection	Light protective clothing.
Other	Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. Do not inhale vapours. Avoid contact with eyes and skin.
Respiratory protection	Respiratory protection mask in the event of high concentrations. Short term: filter apparatus, filter AX (DIN EN 14387).
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Comply with applicable environmental regulations limiting discharge to air, water and soil.

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

Form	viscous pasty
Color	not determined
Odor	characteristic
Odour threshold	No information available.
pH-value	3,0 - 3,5 (5%)
pH-value [1%]	not applicable
Boiling point [°C]	> 101
Flash point [°C]	10
Flammability (solid, gas) [°C]	No information available.
Lower explosion limit	2,1 Vol.-%
Upper explosion limit	12,5 Vol.-%
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	0,96
Bulk density [kg/m³]	not applicable
Solubility in water	immiscible
Partition coefficient [n-octanol/water]	No information available.
Relative vapour density determined in air	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Autoignition temperature [°C]	No information available.
Decomposition temperature [°C]	No information available.

9.2 Other information

none



SECTION 10: Stability and reactivity

10.1 Reactivity

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with strong alkalies and oxidizing agents.

Reactions with strong acids.

10.4 Conditions to avoid

See SECTION 7

Strong heating.

10.5 Incompatible materials

See SECTION 10.3.

10.6 Hazardous decomposition products

Flammable gases/vapours.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Substance
Butyl methacrylate, CAS: 97-88-1
LD50, dermal, Rabbit: > 2000 mg/kg (OECD 402).
LD50, oral, Rat: > 2000 mg/kg (OECD 401).
LC50, inhalative, Rat: 29 mg/l/4h (OECD 403).
Methacrylic acid, CAS: 79-41-4
LD50, dermal, Rabbit: 500 mg/kg.
LD50, oral, Rat: 1060 mg/kg.
Methyl methacrylate, CAS: 80-62-6
LD50, oral, Rat: 7872 mg/kg (RTECS).
LD50, dermal, Rabbit: > 5000 mg/kg (RTECS).
LC50, inhalative, Rat: 7093 ppm/4h (Lit.).
LC50, inhalative, Rat: 78000 mg/m ³ (4 h) (RTECS).
2-Hydroxyethyl methacrylate, CAS: 868-77-9
LD50, dermal, Rabbit: > 5000 mg/kg (Lit.).
LD50, oral, Rat: 5050 mg/kg (GESTIS).

Serious eye damage/irritation	Toxicological data of complete product are not available. Irritant Calculation method
Skin corrosion/irritation	Toxicological data of complete product are not available. Irritant Calculation method
Respiratory or skin sensitisation	Toxicological data of complete product are not available. May cause an allergic skin reaction. Calculation method
Specific target organ toxicity — single exposure	Toxicological data of complete product are not available. May cause respiratory irritation. Calculation method
Specific target organ toxicity — repeated exposure	Based on the available information, the classification criteria are not fulfilled.
Mutagenicity	Based on the available information, the classification criteria are not fulfilled.
Reproduction toxicity	Based on the available information, the classification criteria are not fulfilled.
Carcinogenicity	Based on the available information, the classification criteria are not fulfilled.
Aspiration hazard	Based on the available information, the classification criteria are not fulfilled.
General remarks	Toxicological data of complete product are not available.

**SECTION 12: Ecological information****12.1 Toxicity**

Substance
Butyl methacrylate, CAS: 97-88-1
LC50, (96h), <i>Oryzias latipes</i> : 5,57 mg/l (OECD 203).
EC50, <i>Pseudomonas putida</i> : 253,6 mg/l/18h (Lit.).
EC50, (48h), <i>Daphnia magna</i> : 25,4 mg/l (OECD 202).
IC50, (72h), <i>Pseudokirchneriella subcapitata</i> : 31,2 mg/l (OECD 201).
Methacrylic acid, CAS: 79-41-4
LC50, (96h), <i>Oncorhynchus mykiss</i> : 85 mg/l (OECD 203, IUCLID).
EC50, (48h), <i>Daphnia magna</i> : 130 mg/l (IUCLID).
IC50, (72h), <i>Pseudokirchneriella subcapitata</i> : 45 mg/l (OECD 201, Lit.).
NOEC, (21d), <i>Daphnia magna</i> : 53 mg/l (OECD 202, Lit.).
Methyl methacrylate, CAS: 80-62-6
LC50, (96h), fish: 191 mg/l (IUCLID).
EC50, (48h), <i>Daphnia magna</i> : 69 mg/l (IUCLID).
IC50, <i>Pseudokirchneriella subcapitata</i> : 170 mg/l (4 d) (OECD 201).
2-Hydroxyethyl methacrylate, CAS: 868-77-9
LC50, (96h), <i>Oryzias latipes</i> : > 100 mg/l (Lit. OECD 203).
LC50, (96h), fish: 227 mg/l (GESTIS).
EC50, (72h), <i>Selenastrum capricornutum</i> : 836 mg/l (Lit. OECD 201).
EC50, (48h), <i>Daphnia magna</i> : 380 mg/l (Lit. OECD 202).

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	not determined

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

Ecological data of complete product are not available.
Do not discharge product unmonitored into the environment or into the drainage.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.
Disposal in an incineration plant in accordance with the regulations of the local authorities.

Waste no. (recommended) 080409*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended) 150110*

SECTION 14: Transport information**14.1 UN number**


Transport by land according to ADR/RID 1133


Inland navigation (ADN) 1133


Marine transport in accordance with IMDG 1133


Air transport in accordance with IATA 1133

**14.2 UN proper shipping name**

Transport by land according to ADR/RID	Adhesives
- Classification Code	F1
- Label	
- ADR LQ	5 I
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 2 (D/E)

Inland navigation (ADN)	Adhesives
- Classification Code	F1
- Label	

Marine transport in accordance with IMDG	Adhesives
- EMS	F-E, S-D
- Label	
- IMDG LQ	5 I

Air transport in accordance with IATA	Adhesives
- Label	

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	3
Inland navigation (ADN)	3
Marine transport in accordance with IMDG	3
Air transport in accordance with IATA	3

14.4 Packing group

Transport by land according to ADR/RID	II
Inland navigation (ADN)	II
Marine transport in accordance with IMDG	II
Air transport in accordance with IATA	II

**14.5 Environmental hazards**

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

EEC-REGULATIONS	1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2018).
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011).
- Observe employment restrictions for people	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (2010/75/CE)	not determined

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**16.1 Hazard statements (SECTION 03)**

H318 Causes serious eye damage.
 H314 Causes severe skin burns and eye damage.
 H311 Toxic in contact with skin.
 H302 Harmful if swallowed.
 H226 Flammable liquid and vapour.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H315 Causes skin irritation.
 H335 May cause respiratory irritation.
 H225 Highly flammable liquid and vapour.

**16.2 Abbreviations and acronyms:**

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 ATE = acute toxicity estimate
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 ELINCS = European List of Notified Chemical Substances
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 LC0 = lethal concentration, 0%
 LOAEL = lowest-observed-adverse-effect level
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 NOAEL = No Observed Adverse Effect Level
 NOEC = No Observed Effect Concentration
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 STP = Sewage Treatment Plant
 TLV@/TWA = Threshold limit value – time-weighted average
 TLV@STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.3 Other information**Customs Tariff**

not determined

Classification procedure

Flam. Liq. 2: H225 Highly flammable liquid and vapour. (On basis of test data)
 Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)
 Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
 STOT SE 3: H335 May cause respiratory irritation. (Calculation method)
 Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)

Modified position

none

Copyright: Chemiebüro®