

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****MD-Megabond 2000 Aktivator**
Article number: MMB-A**1.2 Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Relevant uses**Adhesive
Activator**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
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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.
 Skin Corr. 1B: H314 Causes severe skin burns and eye damage.
 Eye Dam. 1: H318 Causes serious eye damage.
 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**

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

Hazard pictograms**Signal word**

DANGER

Contains:

Methyl methacrylate
Methacrylic acid
Cumene hydroperoxide
Tosyl chloride

Hazard statements

H225 Highly flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

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 / protective clothing / eye protection / face protection.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P310 Immediately call a POISON CENTER / doctor / ...
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/national regulation.

UFI:

P2RV-T9QE-7009-XS91

2.3 Other hazards**Other hazards**

none

SECTION 3: Composition / Information on ingredients**3.1 Substances**

not applicable



3.2 Mixtures

The product is a mixture.

Range [%]	Substance
45 - 55	Methyl methacrylate CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, Reg-No.: 01-2119452498-28-XXXX GHS/CLP: Flam. Liq. 2: H225 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - STOT SE 3: H335
1 - <10	Urethane Methacrylate Oligomer CAS: 82339-26-2, EINECS/ELINCS: Polymer GHS/CLP: Skin Irrit. 2: H315 - Eye Irrit. 2: H319
1 - <10	Methacrylic acid CAS: 79-41-4, EINECS/ELINCS: 201-204-4, EU-INDEX: 607-088-00-5, Reg-No.: 01-2119463884-26-xxxx GHS/CLP: Acute Tox. 4: H302 - Acute Tox. 4: H332 - Acute Tox. 3: H311 - Skin Corr. 1A: H314 - Eye Dam. 1: H318 - STOT SE 3: H335
1 - <3	Tosyl chloride CAS: 98-59-9, EINECS/ELINCS: 202-684-8 GHS/CLP: Skin Irrit. 2: H315 - Eye Dam. 1: H318 - Skin Sens. 1A: H317
1 - <1,5	2,6-di-tert-butyl-p-cresol CAS: 128-37-0, EINECS/ELINCS: 204-881-4 GHS/CLP: Aquatic Acute 1: H400 - Aquatic Chronic 1: H410, M_acute = 1, M_chronic = 1
1 - <2,5	Cumene hydroperoxide CAS: 80-15-9, EINECS/ELINCS: 201-254-7, EU-INDEX: 617-002-00-8 GHS/CLP: Org. Perox. E: H242 - Acute Tox. 3: H331 - Acute Tox. 4: H302 H312 - STOT RE 2: H373 - Skin Corr. 1B: H314 - Aquatic Chronic 2: H411, M_acute = 1

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

Product is caustic.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
 Forward this sheet to your 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 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.

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

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth).

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**

Provide good room ventilation even at ground level (vapours are heavier than air).

Take precautionary measures against static discharges.

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

Vapours can form an explosive mixture with air.

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

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

Wash hands before breaks and after work.

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 light.

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, Reg-No.: 01-2119452498-28-XXXX
Long-term exposure: 50 ppm, 208 mg/m ³
Short-term exposure (15-minute): 100 ppm, 416 mg/m ³
Tosyl chloride
CAS: 98-59-9, EINECS/ELINCS: 202-684-8
Short-term exposure (15-minute): 5 mg/m ³
2,6-di-tert-butyl-p-cresol
CAS: 128-37-0, EINECS/ELINCS: 204-881-4
Long-term exposure: 10 mg/m ³
Methacrylic acid
CAS: 79-41-4, EINECS/ELINCS: 201-204-4, EU-INDEX: 607-088-00-5, Reg-No.: 01-2119463884-26-xxxx
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, Reg-No.: 01-2119452498-28-XXXX
Eight hours: 50 ppm
Short-term (15-minute): 100 ppm

DNEL

Substance
Methyl methacrylate, CAS: 80-62-6
Industrial, inhalative, Long-term - local effects: 208 mg/m ³ .
Industrial, dermal, Long-term - systemic effects: 13,67 mg/kg bw/d.
Industrial, dermal, Long-term - local effects: 1,5 mg/cm ² .
Industrial, dermal, Acute - local effects: 1,5 mg/cm ² .
Industrial, inhalative, Long-term - systemic effects: 208 mg/m ³ .
general population, dermal, Long-term - local effects: 1,5 mg/cm ² .
general population, inhalative, Long-term - systemic effects: 74,3 mg/m ³ .
general population, dermal, Long-term - systemic effects: 8,2 mg/kg bw/d.
general population, dermal, Acute - local effects: 1,5 mg/cm ² .
general population, inhalative, Long-term - local effects: 104 mg/m ³ .
Methacrylic acid, CAS: 79-41-4
Industrial, inhalative, Long-term - systemic effects: 29,6 mg/m ³ .
Industrial, inhalative, Long-term - local effects: 88 mg/m ³ .
Industrial, dermal, Long-term - systemic effects: 4,25 mg/kg bw/d.
general population, dermal, Long-term - systemic effects: 2,55 mg/kg bw/d.
general population, inhalative, Long-term - systemic effects: 6,3 mg/m ³ .
general population, inhalative, Long-term - local effects: 6,55 mg/m ³ .

PNEC

Substance



Methyl methacrylate, CAS: 80-62-6
soil, 1,47 mg/kg dw.
sediment (freshwater), 5,74 mg/kg dw.
sewage treatment plants (STP), 10 mg/l.
seawater, 0,94 mg/l.
freshwater, 0,94 mg/l.
Methacrylic acid, CAS: 79-41-4
soil, 1,2 mg/kg dw.
sewage treatment plants (STP), 10 mg/l.
seawater, 0,82 mg/l.
freshwater, 0,82 mg/l.

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: > 0,7 mm/ Butyl rubber, >480 min (EN 374-1/-2/-3). In splash contact: > 0,7 mm/ Butyl rubber, >60 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 A. (DIN EN 14387)
Thermal hazards	No information available.
Delimitation and monitoring of the environmental exposition	See SECTION 6+7.



SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	Gel
Color	amber colour
Odor	characteristic
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	No information available.
Flash point [°C]	15
Flammability (solid, gas) [°C]	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	0,97
Bulk density [kg/m ³]	not applicable
Solubility in water	immiscible
Partition coefficient [n-octanol/water]	No information available.
Viscosity	130.000 - 150.000 mPas (20°C)
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

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.
Reactions with reducing agents, heavy metals.
Reactions with strong oxidizing agents.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

See SECTION 7

10.6 Hazardous decomposition products

Flammable gases/vapours.



SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product
ATE-mix, oral, > 2000 mg/kg.
Substance
Cumene hydroperoxide, CAS: 80-15-9
LD50, oral, Rat: 382 mg/kg IUCLID.
LC50, inhalative, Rat: 220 ppm 4h IUCLID.
Tosyl chloride, CAS: 98-59-9
LD10, oral, Rat: 4680 mg/kg bw.
2,6-di-tert-butyl-p-cresol, CAS: 128-37-0
LD50, dermal, Rabbit: > 2000 mg/kg (Lit.).
LD50, oral, Rat: > 2930 mg/kg (Lit.).
LD50, oral, Rat: 1700 mg/kg (IUCLID).
Methyl methacrylate, CAS: 80-62-6
LD50, dermal, Rabbit: > 5000 mg/kg.
LD50, oral, Rat: > 5000 mg/kg (OECD 401).
LC50, inhalative, Rat: 29,8 mg/l.
Methacrylic acid, CAS: 79-41-4
LD50, dermal, Rabbit: 500 - 1000 mg/kg.
LD50, oral, Rat: 1320 mg/kg bw.
LC50, inhalation (vapour), Rat: 7,1 mg/l/h.

Serious eye damage/irritation	Toxicological data of complete product are not available. Risk of serious damage to eyes. Calculation method
Skin corrosion/irritation	Toxicological data of complete product are not available. Product is caustic. Calculation method
Respiratory or skin sensitisation	Toxicological data of complete product are not available. May produce an allergic reaction. 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. The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists.



SECTION 12: Ecological information

12.1 Toxicity

Substance
Cumene hydroperoxide, CAS: 80-15-9
LC50, (96h), Oncorhynchus mykiss: 3,9 mg/l.
EC50, (24h), Daphnia magna: 7 mg/l.
2,6-di-tert-butyl-p-cresol, CAS: 128-37-0
LC50, (48h), Oryzias latipes: 5 mg/l (IUCLID).
EC50, (72h), Scenedesmus subspicatus: > 0,42 mg/l (IUCLID).
NOEC, (21d), Daphnia magna: > 0,39 mg/l.
Methyl methacrylate, CAS: 80-62-6
LC50, (96h), Oncorhynchus mykiss: > 79 mg/l (OECD 203).
EC50, (72h), Selenastrum capricornutum: > 110 mg/l (OECD 201).
EC50, (48h), Daphnia magna: 69 mg/l (OECD 202).
NOEC, (21d), Daphnia magna: 37 mg/l (OECD 202-2).
NOEC, Danio rerio: 9,4 mg/l (OECD 210).

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.

**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

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

Waste no. (recommended) 150110* packaging containing residues of or contaminated by hazardous substances

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

Transport by land according to ADR/RID 2924

Inland navigation (ADN) 2924

Marine transport in accordance with IMDG 2924

Air transport in accordance with IATA 2924



14.2 UN proper shipping name

Transport by land according to ADR/RID Flammable liquid, corrosive, n.o.s. (Methyl-methacrylate, Methacrylic acid)

- Classification Code FC

- Label



- ADR LQ 1 I

- ADR 1.1.3.6 (8.6)

Transport category (tunnel restriction code) 2 (D/E)

Inland navigation (ADN)

Flammable liquid, corrosive, n.o.s. (Methyl-methacrylate, Methacrylic acid)

- Classification Code FC

- Label



Marine transport in accordance with IMDG

Flammable liquid, corrosive, n.o.s. (Methyl methacrylate, Methacrylic acid)

- EMS

F-E, S-C

- Label



- IMDG LQ

1 I

Air transport in accordance with IATA

Flammable liquid, corrosive, n.o.s. (Methyl-methacrylate, Methacrylic acid mixture)

- Label



14.3 Transport hazard class(es)

Transport by land according to ADR/RID 3 (8)

Inland navigation (ADN) 3 (8)

Marine transport in accordance with IMDG 3 (8)

Air transport in accordance with IATA 3 (8)

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	2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2020)
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)	2,93 %

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 3)**

H225 Highly flammable liquid and vapour.
 H411 Toxic to aquatic life with long lasting effects.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H302+H312 Harmful if swallowed or in contact with skin.
 H331 Toxic if inhaled.
 H242 Heating may cause a fire.
 H319 Causes serious eye irritation.
 H410 Very toxic to aquatic life with long lasting effects.
 H400 Very toxic to aquatic life.
 H317 May cause an allergic skin reaction.
 H315 Causes skin irritation.
 H335 May cause respiratory irritation.
 H318 Causes serious eye damage.
 H314 Causes severe skin burns and eye damage.
 H311 Toxic in contact with skin.
 H332 Harmful if inhaled.
 H302 Harmful if swallowed.

**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
 EL50 = Median effective loading
 ELINCS = European List of Notified Chemical Substances
 EmS = Emergency Schedules
 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
 LL50 = Median lethal loading
 LQ = Limited Quantities
 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**

35061000

Classification procedure

Flam. Liq. 2: H225 Highly flammable liquid and vapour. (On basis of test data)
 Skin Corr. 1B: H314 Causes severe skin burns and eye damage. (Calculation method)
 Eye Dam. 1: H318 Causes serious eye damage. (On basis of test data)
 Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
 STOT SE 3: H335 May cause respiratory irritation. (Calculation method)
 Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

Modified position

SECTION 2 been added: Tosyl chloride

SECTION 8 been added: 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.

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****MD-Megabond 2000 Klebstoff**
Article number: MMB-K**1.2 Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Relevant uses**

Adhesive

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
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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)
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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.
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

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

Hazard pictograms**Signal word**

DANGER

Contains:

Methyl methacrylate

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 effects.

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.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/national regulation.

UFI:

65RV-A9DT-H00T-M3V3



2.3 Other hazards

Other hazards none

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
70 - 90	Methyl methacrylate CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, Reg-No.: 01-2119452498-28-XXXX GHS/CLP: Flam. Liq. 2: H225 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - STOT SE 3: H335
1 - <10	3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine CAS: 34562-31-7, EINECS/ELINCS: 252-091-3 GHS/CLP: Acute Tox. 4: H302 H312 - Eye Irrit. 2: H319 - Skin Irrit. 2: H315
< 1	Low boiling point hydrogen treated naphtha CAS: 64742-82-1, EINECS/ELINCS: 265-185-4, EU-INDEX: 649-330-00-2 GHS/CLP: Flam. Liq. 3: H226 - Asp. Tox. 1: H304 - STOT SE 3: H336 - STOT RE 1: H372 - Aquatic Chronic 2: H411
0,25 - <1	2,6-di-tert-butyl-p-cresol CAS: 128-37-0, EINECS/ELINCS: 204-881-4 GHS/CLP: Aquatic Acute 1: H400 - Aquatic Chronic 1: H410, M_acute = 1, M_chronic = 1

Comment on component parts Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
Naphtha - [contains less than 0,1 % w/w benzene (EINECS No 200-753-7)]
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

Irritant effects

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
Forward this sheet to your 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 firefighters

Use 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 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.

Vacuuming 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.

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

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

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, Reg-No.: 01-2119452498-28-XXXX
Long-term exposure: 50 ppm, 208 mg/m ³
Short-term exposure (15-minute): 100 ppm, 416 mg/m ³
2,6-di-tert-butyl-p-cresol
CAS: 128-37-0, EINECS/ELINCS: 204-881-4
Long-term exposure: 10 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, Reg-No.: 01-2119452498-28-XXXX
Eight hours: 50 ppm
Short-term (15-minute): 100 ppm

DNEL

Substance
Methyl methacrylate, CAS: 80-62-6
Industrial, dermal, Acute - local effects: 1,5 mg/cm ² .
Industrial, dermal, Long-term - local effects: 1,5 mg/cm ² .
Industrial, dermal, Long-term - systemic effects: 13,67 mg/kg bw/d.
Industrial, inhalative, Long-term - local effects: 208 mg/m ³ .
Industrial, inhalative, Long-term - systemic effects: 208 mg/m ³ .
general population, dermal, Acute - local effects: 1,5 mg/cm ² .
general population, dermal, Long-term - local effects: 1,5 mg/cm ² .
general population, dermal, Long-term - systemic effects: 8,2 mg/kg bw/d.
general population, inhalative, Long-term - local effects: 104 mg/m ³ .
general population, inhalative, Long-term - systemic effects: 74,3 mg/m ³ .

PNEC

Substance
Methyl methacrylate, CAS: 80-62-6
soil, 1,47 mg/kg dw.
sediment (freshwater), 5,74 mg/kg dw.
sewage treatment plants (STP), 10 mg/l.
seawater, 0,94 mg/l.
freshwater, 0,94 mg/l.

**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	No information available.
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	Gel
Color	amber colour
Odor	characteristic
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	No information available.
Flash point [°C]	15
Flammability (solid, gas) [°C]	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	0,95
Bulk density [kg/m³]	not applicable
Solubility in water	immiscible
Partition coefficient [n-octanol/water]	No information available.
Viscosity	150.000 - 200.000 mPas (20°C)
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.

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

Reactions with strong acids.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

See SECTION 7

10.6 Hazardous decomposition products

Flammable gases/vapours.



SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product
ATE-mix, oral, > 2000 mg/kg.
Substance
2,6-di-tert-butyl-p-cresol, CAS: 128-37-0
LD50, dermal, Rabbit: > 2000 mg/kg (Lit.).
LD50, oral, Rat: > 2930 mg/kg (Lit.).
LD50, oral, Rat: 1700 mg/kg (IUCLID).
Methyl methacrylate, CAS: 80-62-6
LD50, dermal, Rabbit: > 5000 mg/kg.
LD50, oral, Rat: > 5000 mg/kg (OECD 401).
LC50, inhalative, Rat: 29,8 mg/l.

Serious eye damage/irritation	Toxicological data of complete product are not available. No classification. 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 produce an allergic 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. The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists.

SECTION 12: Ecological information

12.1 Toxicity

Substance
2,6-di-tert-butyl-p-cresol, CAS: 128-37-0
LC50, (48h), <i>Oryzias latipes</i> : 5 mg/l (IUCLID).
EC50, (72h), <i>Scenedesmus subspicatus</i> : > 0,42 mg/l (IUCLID).
NOEC, (21d), <i>Daphnia magna</i> : > 0,39 mg/l.
Methyl methacrylate, CAS: 80-62-6
LC50, (96h), <i>Oncorhynchus mykiss</i> : > 79 mg/l (OECD 203).
EC50, (72h), <i>Selenastrum capricornutum</i> : > 110 mg/l (OECD 201).
EC50, (48h), <i>Daphnia magna</i> : 69 mg/l (OECD 202).
NOEC, (21d), <i>Daphnia magna</i> : 37 mg/l (OECD 202-2).
NOEC, <i>Danio rerio</i> : 9,4 mg/l (OECD 210).



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.

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

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

Waste no. (recommended) 150110* packaging containing residues of or contaminated by hazardous substances

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	2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2020)
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)	2,93 %

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 3)**

H411 Toxic to aquatic life with long lasting effects.
 H372 Causes damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.
 H336 May cause drowsiness or dizziness.
 H304 May be fatal if swallowed and enters airways.
 H226 Flammable liquid and vapour.
 H410 Very toxic to aquatic life with long lasting effects.
 H400 Very toxic to aquatic life.
 H319 Causes serious eye irritation.
 H302+H312 Harmful if swallowed or in contact with skin.
 H335 May cause respiratory irritation.
 H317 May cause an allergic skin reaction.
 H315 Causes skin 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
 EL50 = Median effective loading
 ELINCS = European List of Notified Chemical Substances
 EmS = Emergency Schedules
 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
 LL50 = Median lethal loading
 LQ = Limited Quantities
 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**

35061000

Classification procedure

Flam. Liq. 2: H225 Highly flammable liquid and vapour. (On basis of test data)
 Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
 Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
 STOT SE 3: H335 May cause respiratory irritation. (Calculation method)
 Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

Modified position

SECTION 8 been added: 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.

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