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**1 Identification of the substance / preparation and of the company****1.1 Product identifier****MD-Megabond 3000****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 0 22 52 / 94 15 - 0  
Fax 0 22 52 / 17 44  
Homepage [www.marston-domsel.de](http://www.marston-domsel.de)  
E-mail [info@marston-domsel.de](mailto:info@marston-domsel.de)**Address enquiries to****Technical information**[info@marston-domsel.de](mailto:info@marston-domsel.de)**Safety Data Sheet**[sdb@chemiebuero.de](mailto:sdb@chemiebuero.de)**1.4 Emergency phone****Advisory body**

+49 (0) 89-19240 (24h) (english)

**2 Hazards identification****2.1 Classification of the substance or mixture****2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]****Hazard pictograms****Signal word**

DANGER

Flam. Liq. 2 - H225 Highly flammable liquid and vapour.  
Acute Tox. 4 - H302 H312 H332 Harmful if swallowed, in contact with skin or if inhaled.  
Skin Sens. 1 - H317 May cause an allergic skin reaction.  
Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.  
Skin Irrit. 2 - H315 Causes skin irritation.  
Eye Irrit. 2 - H319 Causes serious eye irritation.  
STOT SE 3 - H335 May cause respiratory irritation.

Classification according to conversion table Annex VII 1272/2008/EC

**2.1.2 Classification according to Regulation 67/548/EEC or 1999/45/EC****Hazard symbols****R-phrases**

Highly flammable

Harmful

R 11: Highly flammable.  
R 20/21/22: Harmful by inhalation, in contact with skin and if swallowed.  
R 36/37/38: Irritating to eyes, respiratory system and skin.  
R 43: May cause sensitisation by skin contact.  
R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

**2.2 Label elements****Labelling according to Regulation 67/548/EEC or 1999/45/EC****Hazard symbols**

Highly flammable



Harmful

**Contains:**

Methyl methacrylate

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

Dibenzoyl peroxide

**R-phrases**

R 11: Highly flammable.

R 20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R 36/37/38: Irritating to eyes, respiratory system and skin.

R 43: May cause sensitisation by skin contact.

R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S-phrases**

S 2: Keep out of the reach of children.

S 16: Keep away from sources of ignition - No smoking.

S 24: Avoid contact with skin.

S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

S 51: Use only in well-ventilated areas.

S 46: If swallowed, seek medical advice immediately and show this container or label.

**Special labelling**

Contains epoxy-containing compounds. Observe manufacturer's instructions.

**2.3 Other hazards****Physico-chemical hazards**

See section 10.

**Human health dangers**

See section 11.

**Environmental hazards**

See section 12.

**Other hazards**

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

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**3 Composition / Information on ingredients****3.1 Product-type:**

The product in question is a mixture.

Range [%]	Substance
40 -< 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 EEC: F-Xi, R 11-37/38-43
1 -< 5	Methacrylic acid
	CAS: 79-41-4, EINECS/ELINCS: 201-204-4, EU-INDEX: 607-088-00-5
	GHS/CLP: Acute Tox. 4 - H312 - Acute Tox. 4 - H302 - Skin Corr. 1A - H314 - STOT SE 3 - H335 EEC: C, R 21/22-35
1 -< 10	Methacrylates
	EU-INDEX: 607-134-00-4
	GHS/CLP: Eye Irrit. 2 - H319 - STOT SE 3 - H335 - Skin Irrit. 2 - H315 EEC: Xi, R 36/37/38
2,5 -< 5	Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight ≤ 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 EEC: Xi-N, R 36/38-43-51/53
1 -< 5	1-Methyltrimethylene dimethacrylate
	CAS: 1189-08-8, EINECS/ELINCS: 214-711-0
	GHS/CLP: EEC: Xi, R 36/38
1 -< 5	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 EEC: E-Xi, R 3-7-36-43
1 -< 5	Bis(methacryloyloxyethyl)hydrogenphosphat
	CAS: 32435-46-4, EINECS/ELINCS: 251-040-2
	GHS/CLP: EEC: Xi, R 36/37/38
0,1 -< 1	N,N-dimethyl-p-toluidine
	CAS: 99-97-8, EINECS/ELINCS: 202-805-4, EU-INDEX: 612-056-00-9
	GHS/CLP: Acute Tox. 3 - H301 H311 H331 - STOT RE 2 - H373 - Aquatic Chronic 3 - H412 EEC: T, R 23/24/25-33-52/53

**Comment on component parts**Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.  
For the wording of the listed risk phrases refer to section 16.**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 for 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**

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

**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 informations available.

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

Treat symptomatically.

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**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**

Unknown 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.

**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

**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.

**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

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

Range [%]	Substance
40 -< 60	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 <sup>3</sup>
	Short-term exposure (15-minute): 100 ppm, 416 mg/m <sup>3</sup>
1 -< 5	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 <sup>3</sup>
1 -< 5	Di-isobutylphthalate
	CAS: 84-69-5, EINECS/ELINCS: 201-553-2, EU-INDEX: 607-623-00-2
	Long-term exposure: 5 mg/m <sup>3</sup>
1 -< 20	Dibenzoyl peroxide
	CAS: 94-36-0, EINECS/ELINCS: 202-327-6, EU-INDEX: 617-008-00-0
	Long-term exposure: 5 mg/m <sup>3</sup>

**Ingredients with occupational exposure limits to be monitored (EU)**

Range [%]	Substance / EC LIMIT VALUES
40 -< 60	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**

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation.
<b>Eye protection</b>	Safety glasses.
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact Butyl rubber, >480 min (EN 374). In splash contact Butyl rubber, >120 min (EN 374).
<b>Skin protection</b>	Light protective clothing.
<b>Other</b>	Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of these equipments to chemicals should be ascertained with the respective supplier. Do not inhale vapours. Avoid contact with eyes and skin. Remove contaminated soaked clothing immediately and dispose of safely. Do not eat, drink, smoke or take drugs at work. After worktime and before work breaks the affected skin areas must be thoroughly cleaned. Use barrier skin cream.
<b>Respiratory protection</b>	Breathing apparatus in the event of high concentrations. Short term: filter apparatus, filter AX.
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	not determined

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

<b>Form</b>	viscous liquid
<b>Color</b>	not determined
<b>Odor</b>	characteristic
<b>Odour threshold</b>	not determined
<b>pH-value</b>	not applicable
<b>pH-value [1%]</b>	not applicable
<b>Boiling point [°C]</b>	not determined
<b>Flash point [°C]</b>	15
<b>Flammability [°C]</b>	not determined
<b>Lower explosion limit</b>	not determined
<b>Upper explosion limit</b>	not determined
<b>Oxidizing properties</b>	no
<b>Vapour pressure/gas pressure [kPa]</b>	not determined
<b>Bulk density [kg/m³]</b>	not applicable
<b>Solubility in water</b>	immiscible
<b>Partition coefficient [n-octanol/water]</b>	not determined
<b>Relative vapour density determined in air</b>	not determined
<b>Evaporation speed</b>	not determined
<b>Melting point [°C]</b>	not determined
<b>Autoignition temperature [°C]</b>	not determined
<b>Decomposition temperature</b>	not determined

**9.2 Other information**

none

**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 alkalis and oxidizing agents.  
Reactions with strong acids.**10.4 Conditions to avoid**

See section 7

**10.5 Incompatible materials**

See section 10.3.

**10.6 Hazardous decomposition products**

Flammable gases/vapours.

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

Range [%]	Substance
2,5 -< 5	Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight ≤ 700), CAS: 25068-38-6 LD50, oral, Rat: 13600 mg/kg.
1 -< 5	Dibenzoyl peroxide, CAS: 94-36-0 LD50, oral, Rat: 7710 mg/kg (HSDB). LC50, inhalative, Rat: > 24,3 mg/l 4 h.
0,1 -< 1	N,N-dimethyl-p-toluidine, CAS: 99-97-8 LC50, inhalative, Rat: 1,4 mg/l/4h (Lit.). LD50, oral, Rat: 1650 mg/kg (Lit.).
1 -< 5	Methacrylic acid, CAS: 79-41-4 LD50, oral, Rat: 1060 mg/kg. LC50, inhalative, Rat: 7,1 mg/l 4h. LD50, dermal, Rabbit: 500 - 1000 mg/kg.
40 -< 60	Methyl methacrylate, CAS: 80-62-6 LD50, oral, Rat: 7872 mg/kg. LD50, dermal, Rabbit: > 5000 mg/kg. LC50, inhalative, Rat: 78000 mg/m <sup>3</sup> 4h.

<b>Serious eye damage/irritation</b>	not determined
<b>Skin corrosion/irritation</b>	not determined
<b>Respiratory or skin sensitisation</b>	not determined
<b>Specific target organ toxicity — single exposure</b>	not determined
<b>Specific target organ toxicity — repeated exposure</b>	not determined
<b>Mutagenicity</b>	not determined
<b>Reproduction toxicity</b>	not determined
<b>Carcinogenicity</b>	not determined
<b>General remarks</b>	

The product was classified on the basis of the calculation procedure of the preparation directive.  
Toxicological data of complete product are not available.

**12 Ecological information****12.1 Toxicity**

Range [%]	Substance
1 -< 5	Dibenzoyl peroxide, CAS: 94-36-0 LC50, (96h), fish: 2 mg/l. EC50, (48h), Daphnia magna: 2,91 mg/l.
1 -< 5	Methacrylic acid, CAS: 79-41-4 EC50, (96h), Algae: 0,59 mg/l. EC50, (24h), Daphnia magna: > 100 - 180 mg/l.
40 -< 60	Methyl methacrylate, CAS: 80-62-6 LC50, (96h), fish: 191 mg/l. EC50, (48h), Daphnia magna: 69 mg/l.

**12.2 Persistence and degradability**

<b>Behaviour in environment compartments</b>	not determined
<b>Behaviour in sewage plant</b>	not determined
<b>Biological degradability</b>	not determined

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**12.3 Bioaccumulative potential**

No informations available.

**12.4 Mobility in soil**

No informations available.

**12.5 Results of PBT and vPvB assessment**

No informations 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.

The product was classified on the basis of the calculation procedure of the preparation directive.

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

**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\*

**14 Transport information****14.1 UN number**

See section 14.2 in accordance with UN shipping name



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**14.2 UN proper shipping name**

Transport by land according to ADR/RID UN 1133 ADHESIVES 3 II

- Classification Code F1

- Label 

- ADR LQ 5 I

- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 2 (D/E)


Marine transport in accordance with IMDG UN 1133 Adhesives 3 II

- EMS F-E, S-D

- Label 

- IMDG LQ 5 I

Air transport in accordance with IATA UN 1133 Adhesives 3 II

- Label 

**14.3 Transport hazard class(es)**

See section 14.2 in accordance with UN shipping name

**14.4 Packing group**

See section 14.2 in accordance with UN shipping name

**14.5 Environmental hazards**

See section 14.2 in accordance with UN shipping name

**14.6 Special precautions for user**

Relevant information under section 6 to 8.

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

No informations available.

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

**EEC-REGULATIONS** 1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC

**TRANSPORT-REGULATIONS** DOT-Classification, ADR (2011); IMDG-Code (2011, 35. Amdt.); IATA-DGR (2012).

**NATIONAL REGULATIONS (GB):** EH40/2005 Workplace exposure limits with amendments October 2007. CHIP 3/ CHIP 4

**15.2 Chemical safety assessment**

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

**16 Other informations****R-phrases (section 03)**

R 11: Highly flammable.  
 R 37/38: Irritating to respiratory system and skin.  
 R 43: May cause sensitisation by skin contact.  
 R 21/22: Harmful in contact with skin and if swallowed.  
 R 35: Causes severe burns.  
 R 36/37/38: Irritating to eyes, respiratory system and skin.  
 R 36/38: Irritating to eyes and skin.  
 R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 R 23/24/25: Toxic by inhalation, in contact with skin and if swallowed.  
 R 33: Danger of cumulative effects.  
 R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 R 36: Irritating to eyes.  
 R 7: May cause fire.  
 R 3: Extreme risk of explosion by shock, friction, fire or other sources of ignition.

**Hazard statements (section 03)**

H225 Highly flammable liquid and vapour.  
 H335 May cause respiratory irritation.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H312 Harmful in contact with skin.  
 H302 Harmful if swallowed.  
 H314 Causes severe skin burns and eye damage.  
 H319 Causes serious eye irritation.  
 H411 Toxic to aquatic life with long lasting effects.  
 H301 H311 H331 Toxic if swallowed, in contact with skin or if inhaled.  
 H373 May cause damage to organs through prolonged or repeated exposure.  
 H412 Harmful to aquatic life with long lasting effects.  
 H241 Heating may cause a fire or explosion.

**Observe employment restrictions for people** yes

**VOC (1999/13/CE)**

not determined

**Customs Tariff**

not determined

**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  
 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  
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
 PBT = Persistent, Bioaccumulative and Toxic substance  
 PNEC = Predicted No-Effect Concentration  
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
 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

**Modified position**

none