

**SECTION 1: Identification of the substance / preparation and of the company****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

**1.2.2 Uses advised against**

None known.

**1.3 Details of the supplier of the safety data sheet****Company**Marston Domsel GmbH  
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53909 Zülpich / GERMANY  
Phone 0 22 52 / 94 15 - 0  
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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)

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]**Eye Dam. 1: H318 Causes serious eye damage.  
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.**2.1.2 Classification according to Regulation 67/548/EEC or 1999/45/EC**F, Highly flammable - R 11: Highly flammable.  
C, Corrosive - R 34: Causes burns.  
Xi, Irritant - R 37: Irritating to respiratory system.  
Sensitizing. - 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.



## 2.2 Label elements

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

### Labelling according to Regulation (EC) 1272/2008

#### Hazard pictograms



#### Signal word

DANGER

#### Contains:

Methyl methacrylate

Methacrylic acid

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

#### 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/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 to in accordance with local/regional/national/international regulation.

## 2.3 Other hazards

#### Other hazards

none



### SECTION 3: Composition / Information on ingredients

**Product-type:**

The product is a mixture.

Range [%]	Substance
50 - 70	Methyl methacrylate CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, ECB-Nr.: 01-2119452498-28-0000 GHS/CLP: Flam. Liq. 2: H225 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - STOT SE 3: H335 EEC: F-Xi, R 11-37/38-43
1 - <10	Urethane methacrylate-oligomere GHS/CLP: Skin Irrit. 2: H315 - Eye Irrit. 2: H319 EEC: Xi, R 36/38
1 - <10	Methacrylic acid CAS: 79-41-4, EINECS/ELINCS: 201-204-4, EU-INDEX: 607-088-00-5, ECB-Nr.: 01-2119463884-26-xxxx GHS/CLP: Acute Tox. 4: H302 - Acute Tox. 4: H332 - Acute Tox. 3: H311 - Skin Corr. 1A: H314 EEC: C, R 21/22-35
1 - <5	Tosyl chloride CAS: 98-59-9, EINECS/ELINCS: 202-684-8 GHS/CLP: Skin Irrit. 2: H315 - Eye Dam. 1: H318 EEC: Xi, R 38-41
1 - <2,5	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 = 1 EEC: N, R 50/53
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 = 1 EEC: O-T-N, R 7-21/22-23-48/20/22-34-51/53
0,1 - < 1	Propylidynetrimethanol, ethoxylated, esters with acrylic acid CAS: 28961-43-5, EINECS/ELINCS: 500-066-5 GHS/CLP: Eye Irrit. 2: H319 - Skin Sens. 1: H317 EEC: Xi, R 36-43

**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 and R-phrases: 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 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**

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 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**

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.

**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)**

Range [%]	Substance
50 - 70	Methyl methacrylate
	CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, ECB-Nr.: 01-2119452498-28-0000
	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	Tosyl chloride
	CAS: 98-59-9, EINECS/ELINCS: 202-684-8
	Short-term exposure (15-minute): 5 mg/m <sup>3</sup>
1 - <2,5	2,6-di-tert-butyl-p-cresol
	CAS: 128-37-0, EINECS/ELINCS: 204-881-4
	Long-term exposure: 10 mg/m <sup>3</sup>
1 - <10	Methacrylic acid
	CAS: 79-41-4, EINECS/ELINCS: 201-204-4, EU-INDEX: 607-088-00-5, ECB-Nr.: 01-2119463884-26-xxxx
	Long-term exposure: 20 ppm, 72 mg/m <sup>3</sup>
	Short-term exposure (15-minute): 40 ppm, 143 mg/m <sup>3</sup>

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

Range [%]	Substance / EC LIMIT VALUES
50 - 70	Methyl methacrylate
	CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, ECB-Nr.: 01-2119452498-28-0000
	Eight hours: 50 ppm
	Short-term (15-minute): 100 ppm

**DNEL**

Range [%]	Substance
50 - 70	Methyl methacrylate, CAS: 80-62-6
	Industrial, inhalative, Long-term - local effects: 208 mg/m <sup>3</sup> .
	Industrial, dermal, Long-term - systemic effects: 13,67 mg/kg bw/d.
	Industrial, dermal, Long-term - local effects: 1,5 mg/cm <sup>2</sup> .
	Industrial, dermal, Acute - local effects: 1,5 mg/cm <sup>2</sup> .
	Industrial, inhalative, Long-term - systemic effects: 208 mg/m <sup>3</sup> .
	general population, dermal, Long-term - local effects: 1,5 mg/cm <sup>2</sup> .
	general population, inhalative, Long-term - systemic effects: 74,3 mg/m <sup>3</sup> .
	general population, dermal, Long-term - systemic effects: 8,2 mg/kg bw/d.
	general population, dermal, Acute - local effects: 1,5 mg/cm <sup>2</sup> .
	general population, inhalative, Long-term - local effects: 104 mg/m <sup>3</sup> .
1 - <10	Methacrylic acid, CAS: 79-41-4
	Industrial, inhalative, Long-term - systemic effects: 29,6 mg/m <sup>3</sup> .
	Industrial, inhalative, Long-term - local effects: 88 mg/m <sup>3</sup> .
	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 <sup>3</sup> .
general population, inhalative, Long-term - local effects: 6,55 mg/m <sup>3</sup> .	

**PNEC**

Range [%]	Substance
50 - 70	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.
1 - <10	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

<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, >60 min (EN 374).
<b>Skin protection</b>	Light protective clothing of plastic material.
<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.
<b>Respiratory protection</b>	Breathing apparatus in the event of high concentrations. Short term: filter apparatus, filter A.
<b>Thermal hazards</b>	No information available.
<b>Delimitation and monitoring of the environmental exposition</b>	See SECTION 6+7.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	Gel
<b>Color</b>	whitish
<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>	11
<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>Density [g/ml]</b>	0,97
<b>Bulk density [kg/m³]</b>	not applicable
<b>Solubility in water</b>	immiscible
<b>Partition coefficient [n-octanol/water]</b>	not determined
<b>Viscosity</b>	130.000 - 150.000 mPas (20°C)
<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 [°C]</b>	not determined



## 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.

Range [%]	Substance
1 - <2,5	Cumene hydroperoxide, CAS: 80-15-9
	LD50, oral, Rat: 382 mg/kg IUCLID.
	LC50, inhalative, Rat: 220 ppm 4h IUCLID.
1 - <2,5	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).
50 - 70	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.
1 - <10	Methacrylic acid, CAS: 79-41-4
	LD50, dermal, Rabbit: 500 - 1000 mg/kg.
	LD50, oral, Rat: 1320 mg/kg bw.
	LC50, inhalativ (vapour ), Rat: 7,1 mg/l/h.

<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 toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. Toxicological data of complete product are not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Range [%]	Substance
1 - <2,5	Cumene hydroperoxide, CAS: 80-15-9
	LC50, (96h), Oncorhynchus mykiss: 3,9 mg/l.
	EC50, (24h), Daphnia magna: 7 mg/l.
1 - <2,5	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).
50 - 70	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\*

## SECTION 14: Transport information

### 14.1 UN number

See SECTION 14.2 in accordance with UN shipping name

#### 14.2 UN proper shipping name

Transport by land according to ADR/RID

UN 2924 Flammable liquid, corrosive, n.o.s. (Methyl-methacrylate, Methacrylic acid) 3 & 8 II

- Classification Code

FC

- Label



- ADR LQ

1 I

- ADR 1.1.3.6 (8.6)

Transport category (tunnel restriction code) 3 (D/E)

Inland navigation (ADN)

UN 2924 Flammable liquid, corrosive, n.o.s. (Methyl-methacrylate, Methacrylic acid) 3 & 8 II

- Classification Code

FC

- Label



Marine transport in accordance with IMDG

UN 2924 Flammable liquid, corrosive, n.o.s. (Methyl methacrylate, Methacrylic acid) 3 & 8 II

- EMS

F-E, S-C

- Label



- IMDG LQ

1 I

Air transport in accordance with IATA

UN 2924 Flammable liquid, corrosive, n.o.s. (Methyl-methacrylate, Methacrylic acid mixture) 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 information available.

### SECTION 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 (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013).

NATIONAL REGULATIONS (GB):

EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4

- Observe employment restrictions for people

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

- VOC (1999/13/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 R-phrases (SECTION 3)

R 11: Highly flammable.  
R 37/38: Irritating to respiratory system and skin.  
R 43: May cause sensitisation by skin contact.  
R 36/38: Irritating to eyes and skin.  
R 21/22: Harmful in contact with skin and if swallowed.  
R 35: Causes severe burns.  
R 38: Irritating to skin.  
R 41: Risk of serious damage to eyes.  
R 50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R 36: Irritating to eyes.  
R 7: May cause fire.  
R 23: Toxic by inhalation.  
R 48/20/22: Harmful - danger of serious damage to health by prolonged exposure through inhalation and if swallowed.  
R 34: Causes burns.  
R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 16.2 Hazard statements (SECTION 3)

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.  
H410 Very toxic to aquatic life with long lasting effects.  
H400 Very toxic to aquatic life.  
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.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H317 May cause an allergic skin reaction.  
H315 Causes skin irritation.  
H225 Highly flammable liquid and vapour.

**16.3 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

**16.4 Other information****Customs Tariff**

not determined

**Classification procedure**

Eye Dam. 1: H318 Causes serious eye damage. (On basis of test data)  
 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: Skin Sens. 1  
 SECTION 2 been added: Skin Corr. 1B  
 SECTION 2 been added: H314 Causes severe skin burns and eye damage.  
 SECTION 2 been added: Eye Dam. 1  
 SECTION 2 been added: H225 Highly flammable liquid and vapour.  
 SECTION 2 been added: H317 May cause an allergic skin reaction.  
 SECTION 2 been added: STOT SE 3  
 SECTION 2 been added: H335 May cause respiratory irritation.  
 SECTION 2 been added: Aquatic Chronic 3  
 SECTION 2 been added: H412 Harmful to aquatic life with long lasting effects.  
 SECTION 2 been added: Flam. Liq. 2  
 SECTION 2 been added: H318 Causes serious eye damage.  
 SECTION 4 been added: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 SECTION 4 been added: If eye irritation persists: Get medical advice/attention.  
 SECTION 7 been added: Take off contaminated clothing and wash before reuse.  
 SECTION 7 been added: Contaminated work clothing should not be allowed out of the workplace.  
 SECTION 7 been added: Do not eat, drink or smoke when using this product.



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**SECTION 1: Identification of the substance / preparation and of the company****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**

<b>Company</b>	Marston Domsel GmbH Bergheimer Str. 15 53909 Zülpich / GERMANY Phone 0 22 52 / 94 15 - 0 Fax 0 22 52 / 17 44 Homepage <a href="http://www.marston-domsel.de">www.marston-domsel.de</a> E-mail <a href="mailto:info@marston-domsel.de">info@marston-domsel.de</a>
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**Address enquiries to**

<b>Technical information</b>	<a href="mailto:info@marston-domsel.de">info@marston-domsel.de</a>
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<b>Safety Data Sheet</b>	<a href="mailto:sdb@chemiebuero.de">sdb@chemiebuero.de</a>
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**1.4 Emergency phone**

<b>Advisory body</b>	+49 (0)89-19240 (24h) (english)
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**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]**

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.

**2.1.2 Classification according to Regulation 67/548/EEC or 1999/45/EC**

F, Highly flammable - R 11: Highly flammable.  
Xi, Irritant - R 37/38: Irritating to respiratory system and skin.  
Sensitizing. - 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.



## 2.2 Label elements

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

### Labelling according to Regulation (EC) 1272/2008

#### 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 to in accordance with local/regional/national/international regulation.

## 2.3 Other hazards

Other hazards none

## SECTION 3: Composition / Information on ingredients

### Product-type:

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, ECB-Nr.: 01-2119452498-28-0000 GHS/CLP: Flam. Liq. 2: H225 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - STOT SE 3: H335 EEC: F-Xi, R 11-37/38-43
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 EEC: Xn-Xi, R 21/22-36/38
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 = 1 EEC: N, R 50/53

### 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 and R-phrases: see SECTION 16.

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

<b>General information</b>	Remove contaminated soaked clothing immediately and dispose of safely.
<b>Inhalation</b>	Ensure supply of fresh air. In the event of symptoms seek for medical treatment.
<b>Skin contact</b>	In case of contact with skin wash off immediately with soap and water. Consult a doctor if skin irritation persists.
<b>Eye contact</b>	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.
<b>Ingestion</b>	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 the doctor.**SECTION 5: Fire-fighting measures****5.1 Extinguishing media**

<b>Suitable extinguishing media</b>	Carbon dioxide. Water spray jet. Dry powder. Foam.
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<b>Extinguishing media that must not be used</b>	Full water jet.
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**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 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.  
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)**

Range [%]	Substance
70 - 90	Methyl methacrylate
	CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, ECB-Nr.: 01-2119452498-28-0000
	Long-term exposure: 50 ppm, 208 mg/m <sup>3</sup>
	Short-term exposure (15-minute): 100 ppm, 416 mg/m <sup>3</sup>
0,25 - <1	2,6-di-tert-butyl-p-cresol
	CAS: 128-37-0, EINECS/ELINCS: 204-881-4
	Long-term exposure: 10 mg/m <sup>3</sup>

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

Range [%]	Substance / EC LIMIT VALUES
70 - 90	Methyl methacrylate
	CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, ECB-Nr.: 01-2119452498-28-0000
	Eight hours: 50 ppm
	Short-term (15-minute): 100 ppm

**DNEL**

Range [%]	Substance
70 - 90	Methyl methacrylate, CAS: 80-62-6
	Industrial, dermal, Acute - local effects: 1,5 mg/cm <sup>2</sup> .
	Industrial, dermal, Long-term - local effects: 1,5 mg/cm <sup>2</sup> .
	Industrial, dermal, Long-term - systemic effects: 13,67 mg/kg bw/d.
	Industrial, inhalative, Long-term - local effects: 208 mg/m <sup>3</sup> .
	Industrial, inhalative, Long-term - systemic effects: 208 mg/m <sup>3</sup> .
	general population, dermal, Acute - local effects: 1,5 mg/cm <sup>2</sup> .
	general population, dermal, Long-term - local effects: 1,5 mg/cm <sup>2</sup> .
	general population, dermal, Long-term - systemic effects: 8,2 mg/kg bw/d.
	general population, inhalative, Long-term - local effects: 104 mg/m <sup>3</sup> .
	general population, inhalative, Long-term - systemic effects: 74,3 mg/m <sup>3</sup> .

**PNEC**

Range [%]	Substance
70 - 90	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**

<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.
<b>Respiratory protection</b>	Breathing apparatus in the event of high concentrations. Short term: filter apparatus, filter AX.
<b>Thermal hazards</b>	No information available.
<b>Delimitation and monitoring of the environmental exposition</b>	See SECTION 6+7.

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

<b>Form</b>	Gel
<b>Color</b>	opaque
<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>	11
<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>Density [g/ml]</b>	0,95
<b>Bulk density [kg/m³]</b>	not applicable
<b>Solubility in water</b>	immiscible
<b>Partition coefficient [n-octanol/water]</b>	not determined
<b>Viscosity</b>	150.000 - 200.000 mPas (20°C)
<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 [°C]</b>	not determined

**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.

Range [%]	Substance
0,25 - <1	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).
70 - 90	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** not determined

**Skin corrosion/irritation** not determined

**Respiratory or skin sensitisation** not determined

**Specific target organ toxicity — single exposure** not determined

**Specific target organ toxicity — repeated exposure** not determined

**Mutagenicity** not determined

**Reproduction toxicity** not determined

**Carcinogenicity** not determined

#### General remarks

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. Toxicological data of complete product are not available.

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

Range [%]	Substance
0,25 - <1	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).
70 - 90	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**

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





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**

See SECTION 14.2 in accordance with UN shipping name

#### 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)
Inland navigation (ADN)	UN 1133 ADHESIVES 3 II
- Classification Code	F1
- Label	
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 information available.

### SECTION 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 (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013).
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4
- Observe employment restrictions for people	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (1999/13/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 R-phrases (SECTION 3)**

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 36/38: Irritating to eyes and skin.  
 R 50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**16.2 Hazard statements (SECTION 3)**

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.

**16.3 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

**16.4 Other information****Customs Tariff**

not determined

**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 2 been added: STOT SE 3

SECTION 2 been added: Flam. Liq. 2

SECTION 2 been added: H225 Highly flammable liquid and vapour.

SECTION 2 been added: Skin Irrit. 2

SECTION 2 been added: H315 Causes skin irritation.

SECTION 2 been added: R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 2 been added: H317 May cause an allergic skin reaction.

SECTION 2 been added: H335 May cause respiratory irritation.

SECTION 2 been added: Aquatic Chronic 3

SECTION 2 been added: H412 Harmful to aquatic life with long lasting effects.

SECTION 2 been added: Skin Sens. 1

SECTION 4 been added: If eye irritation persists: Get medical advice/attention.

SECTION 4 been added: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 7 been added: Contaminated work clothing should not be allowed out of the workplace.

SECTION 7 been added: Take off contaminated clothing and wash before reuse.

SECTION 11 been added: Toxicological data of complete product are not available.

SECTION 11 been added: 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.

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