

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****MD-PU-Speed Part A**  
**Article number: MPU****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 +49 (0) 22 52 94 15 0 Fax +49 (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****Technical information** [info@marston-domsel.de](mailto:info@marston-domsel.de)**Safety Data Sheet** [sdb@chemiebuero.de](mailto: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**

Carc. 2: H351 Suspected of causing cancer.  
 Acute Tox. 4: H332 Harmful if inhaled.  
 STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure.  
 Eye Irrit. 2: H319 Causes serious eye irritation.  
 Skin Irrit. 2: H315 Causes skin irritation.  
 STOT SE 3: H335 May cause respiratory irritation.  
 Resp. Sens. 1: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 Skin Sens. 1: H317 May cause an allergic skin reaction.



## 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:**

Diphenylmethanediisocyanate, isomeres and homologues

o-(p-isocyanatobenzyl)phenyl isocyanate

4,4'-Methylenediphenyl diisocyanate

2,2'-methylenediphenyl diisocyanate

**Hazard statements**

H351 Suspected of causing cancer.

H332 Harmful if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H335 May cause respiratory irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

**Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P260 Do not breathe vapours.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / eye protection / face protection.

P284 [In case of inadequate ventilation] wear respiratory protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P311 IF exposed or concerned: Call a POISON CENTER / doctor /...

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

**Special labelling**

EUH204 Contains isocyanates. May produce an allergic reaction.

Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

## 2.3 Other hazards

**Human health dangers**

Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

**Other hazards**

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

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

The product is a mixture.

Range [%]	Substance
30 - < 70	Diphenylmethanediisocyanate, isomeres and homologues CAS: 9016-87-9 GHS/CLP: Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Eye Irrit. 2: H319 - Acute Tox. 4: H332 - Resp. Sens. 1: H334 - STOT SE 3: H335 - Carc. 2: H351 - STOT RE 2: H373
10 - < 20	4,4'-Methylenediphenyl diisocyanate CAS: 101-68-8, EINECS/ELINCS: 202-966-0, EU-INDEX: 615-005-00-9, Reg-No.: 01-2119457014-47-XXXX GHS/CLP: Carc. 2: H351 - Acute Tox. 4: H332 - STOT RE 2: H373 - Eye Irrit. 2: H319 - STOT SE 3: H335 - Skin Irrit. 2: H315 - Resp. Sens. 1: H334 - Skin Sens. 1: H317
10 - < 20	o-(p-isocyanatobenzyl)phenyl isocyanate CAS: 5873-54-1, EINECS/ELINCS: 227-534-9, EU-INDEX: 615-005-00-9, Reg-No.: 01-2119480143-45-XXXX GHS/CLP: Carc. 2: H351 - Acute Tox. 4: H332 - STOT RE 2: H373 - Eye Irrit. 2: H319 - STOT SE 3: H335 - Skin Irrit. 2: H315 - Resp. Sens. 1: H334 - Skin Sens. 1: H317
1 - < 5	2,2'-methylenediphenyl diisocyanate CAS: 2536-05-2, EINECS/ELINCS: 219-799-4, EU-INDEX: 615-005-00-9, Reg-No.: 01-2119927323-43-XXXX GHS/CLP: Acute Tox. 4: H332 - Skin Irrit. 2: H315 - Eye Irrit. 2: H319 - Resp. Sens. 1: H334 - Skin Sens. 1: H317 - Carc. 2: H351 - STOT SE 3: H335 - STOT RE 2: H373
1 - < 3	[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane CAS: 2530-83-8, EINECS/ELINCS: 219-784-2, Reg-No.: 01-2119513212-58 GHS/CLP: Eye Dam. 1: H318

**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**Remove the victim into fresh air and keep him calm.  
In the event of symptoms seek medical treatment.**Skin contact**In the event of contact with the skin wash immediately with polyethylene glycol, then with plenty of 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**Do not induce vomiting.  
Rinse out mouth and give plenty of water to drink.  
Consult a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed**

No information available.

**4.3 Indication of any immediate medical attention and special treatment needed**Treat symptomatically.  
Forward this sheet to the doctor.**SECTION 5: Fire-fighting measures****5.1 Extinguishing media****Suitable extinguishing media**Carbon dioxide.  
Dry powder.  
Sand.**Extinguishing media that must not be used**

Full water jet

**5.2 Special hazards arising from the substance or mixture**

Nitrogen oxides (NOx).  
Hydrogen cyanide (HCN).  
Risk of formation of toxic pyrolysis products.

**5.3 Advice for firefighters**

Use self-contained breathing apparatus.  
Wear full protective suit.  
Collect contaminated firefighting water separately, must not be discharged into the drains.  
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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

Ensure adequate ventilation.  
Use personal protective equipment.  
High risk of slipping due to leakage/spillage of product.

**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 with the regulations.

**6.4 Reference to other sections**

See SECTION 8+13

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

Use only in well-ventilated areas.  
Provide suitable vacuuming at the processing machines.

Wash hands before breaks and after work.  
Do not eat, drink or smoke when using this product.  
Contaminated work clothing should not be allowed out of the workplace.  
Use barrier skin cream.  
Keep away from food and drink.  
Take off contaminated clothing and wash before reuse.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep only in original container.  
Prevent penetration into the ground.  
Keep away from water.  
Do not store together with oxidizing agents.  
Do not store together with food and animal food/diet.  
Keep container tightly closed.  
Keep container in a well-ventilated place.  
Protect from atmospheric moisture and water.  
Store in a dry place.  
Do not keep at temperatures above 50 °C.  
Keep away from frost.

**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
Diphenylmethanediisocyanate, isomeres and homologues
CAS: 9016-87-9
Long-term exposure: 0,02 mg/m <sup>3</sup> , as NCO, Sen
Short-term exposure (15-minute): 0,07 mg/m <sup>3</sup>
4,4'-Methylenediphenyl diisocyanate
CAS: 101-68-8, EINECS/ELINCS: 202-966-0, EU-INDEX: 615-005-00-9, Reg-No.: 01-2119457014-47-XXXX
Long-term exposure: 0,02 mg/m <sup>3</sup> , as NCO, Sen
Short-term exposure (15-minute): 0,07 mg/m <sup>3</sup>
o-(p-isocyanatobenzyl)phenyl isocyanate
CAS: 5873-54-1, EINECS/ELINCS: 227-534-9, EU-INDEX: 615-005-00-9, Reg-No.: 01-2119480143-45-XXXX
Long-term exposure: 0,02 mg/m <sup>3</sup> , as NCO, Sen
Short-term exposure (15-minute): 0,07 mg/m <sup>3</sup>
2,2'-methylenediphenyl diisocyanate
CAS: 2536-05-2, EINECS/ELINCS: 219-799-4, EU-INDEX: 615-005-00-9, Reg-No.: 01-2119927323-43-XXXX
Long-term exposure: 0,02 mg/m <sup>3</sup> , as NCO, Sen
Short-term exposure (15-minute): 0,07 mg/m <sup>3</sup>

**DNEL**

Substance
2,2'-methylenediphenyl diisocyanate, CAS: 2536-05-2
Industrial, inhalative, Long-term - systemic effects: 0,05 mg/m <sup>3</sup> .
Industrial, inhalative, Acute - systemic effects: 0,1 mg/m <sup>3</sup> .
Industrial, inhalative, Acute - local effects: 0,1 mg/m <sup>3</sup> .
Industrial, dermal, Acute - local effects: 28,7 mg/cm <sup>2</sup> .
Industrial, dermal, Acute - systemic effects: 50 mg/kg.
Industrial, inhalative, Long-term - local effects: 0,05 mg/m <sup>3</sup> .
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane, CAS: 2530-83-8
Industrial, dermal, Long-term - systemic effects: 21 mg/kg/d.
Industrial, dermal, Acute - systemic effects: 21 mg/kg/d.
Industrial, inhalative, Long-term - systemic effects: 147 mg/m <sup>3</sup> .
Industrial, inhalative, Acute - systemic effects: 147 mg/m <sup>3</sup> .
o-(p-isocyanatobenzyl)phenyl isocyanate, CAS: 5873-54-1
Industrial, dermal, Acute - local effects: 28,7 mg/cm <sup>2</sup> .
Industrial, inhalative, Long-term - local effects: 0,05 mg/m <sup>3</sup> .
Industrial, inhalative, Acute - systemic effects: 0,1 mg/m <sup>3</sup> .
Industrial, inhalative, Long-term - systemic effects: 0,05 mg/m <sup>3</sup> .
Industrial, inhalative, Acute - local effects: 0,1 mg/m <sup>3</sup> .
Industrial, dermal, Acute - systemic effects: 50 mg/kg.
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
Industrial, dermal, Acute - local effects: 28,7 mg/cm <sup>2</sup> .
Industrial, inhalative, Acute - local effects: 0,1 mg/m <sup>3</sup> .
Industrial, inhalative, Acute - systemic effects: 0,1 mg/m <sup>3</sup> .
Industrial, inhalative, Long-term - systemic effects: 0,05 mg/m <sup>3</sup> .



<b>PNEC</b>	Industrial, inhalative, Long-term - local effects: 0,05 mg/m <sup>3</sup> .
	Industrial, dermal, Acute - systemic effects: 50 mg/kg.
	Substance
	2,2'-methylenediphenyl diisocyanate, CAS: 2536-05-2
	soil, > 1 mg/kg.
	seawater, > 0,1 mg/l.
	freshwater, > 1 mg/l.
	sewage treatment plants (STP), > 1 mg/l.
	[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane, CAS: 2530-83-8
	seawater, 0,1 mg/l.
	sediment, 0,79 mg/kg.
	soil, 0,13 mg/kg.
	sewage treatment plants (STP), > 10 mg/l.
	freshwater, 1 mg/l.
	o-(p-isocyanatobenzyl)phenyl isocyanate, CAS: 5873-54-1
	sewage treatment plants (STP), > 1 mg/l.
	freshwater, > 1 mg/l.
	seawater, > 0,1 mg/l.
	soil, > 1 mg/kg.
	4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
	seawater, > 0,1 mg/l.
	soil, > 1 mg/kg.
	sewage treatment plants (STP), > 1 mg/l.
	freshwater, > 1 mg/l.

## 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation. Use suitable exhaust ventilation.
<b>Eye protection</b>	safety glasses (EN 166:2001)
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. ≥ 0,5 mm Butyl rubber, >480 min (EN 374-1/-2/-3). ≥ 0,5 mm Nitrile rubber, >480 min (EN 374-1/-2/-3). ≥ 0,5 mm Polychloroprene, >480 min (EN 374-1/-2/-3).
<b>Skin protection</b>	Protective clothing.
<b>Other</b>	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 breathe vapour/spray. Avoid contact with eyes and skin.
<b>Respiratory protection</b>	Breathing apparatus in the event of high concentrations. Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)
<b>Thermal hazards</b>	No information available.
<b>Delimitation and monitoring of the environmental exposition</b>	Protect the environment by applying appropriate control measures to prevent or limit emissions.

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

Form	liquid
Color	brown
Odor	characteristic
Odour threshold	not determined
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	> 300
Flash point [°C]	> 200
Flammability (solid, gas) [°C]	> 500
Lower explosion limit	not determined
Upper explosion limit	not determined
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	< 0,00001 mbar (25°C)
Density [g/ml]	1,17 (20°C)
Bulk density [kg/m <sup>3</sup> ]	not applicable
Solubility in water	insoluble reacts with water
Partition coefficient [n-octanol/water]	not determined
Viscosity	ca. 8000 mPas (23°C)
Relative vapour density determined in air	not determined
Evaporation speed	not determined
Melting point [°C]	< 0
Autoignition temperature [°C]	not determined
Decomposition temperature [°C]	not determined

**9.2 Other information**

No information available.

**SECTION 10: Stability and reactivity****10.1 Reactivity**

No dangerous reactions known if used as directed.

**10.2 Chemical stability**

Stable under normal ambient conditions (ambient temperature).

**10.3 Possibility of hazardous reactions**

Reactions with water, with formation of carbon dioxide.  
 Reactions with alcohols.  
 Reactions with amines.  
 Development of pressure and risk of bursting in closed containers.  
 (200°C) Risk of polymerisation.

**10.4 Conditions to avoid**

Strong heating.  
 Water.



### 10.5 Incompatible materials

See SECTION 10.3.

### 10.6 Hazardous decomposition products

In the event of fire: See SECTION 5.

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

Substance
2,2'-methylenediphenyl diisocyanate, CAS: 2536-05-2
inhalative, Conversion value: 1,5 mg/l/4h (Dust/mist).
LD50, dermal, Rabbit: > 9400 mg/kg (OECD 402).
LD50, oral, Rat: > 2000 mg/kg.
LC50, inhalative, Rat: 0,527 mg/l/4h (OECD 403).
Diphenylmethanediisocyanate, isomeres and homologues, CAS: 9016-87-9
LD50, dermal, Rabbit: > 9400 mg/kg.
LD50, oral, Rat: > 10000 mg/kg.
LC50, inhalativ (mist), Rat: 0,31 mg/l/4h (OECD 403).
NOAEL, inhalative, Rat: 0,2 mg/m <sup>3</sup> (OECD 453).
NOAEL, inhalative, Rat: 12 mg/m <sup>3</sup> (OECD 414).
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane, CAS: 2530-83-8
LD50, dermal, Rabbit: 4.250 mg/kg (OECD 402).
LD50, oral, Rat: 8.025 mg/kg (OECD 401).
LC50, inhalative, Rat: > 5.300 mg/l/4h (OECD 403).
NOAEL, oral, Rat: 1.000 mg/kg/28d (OECD 407).
NOAEL, inhalative, Rat: 0,225 mg/l/14d (OECD 412).
o-(p-isocyanatobenzyl)phenyl isocyanate, CAS: 5873-54-1
inhalative, Conversion value: 1,5 mg/l/4h (Dust/mist).
LD50, oral, Rat: > 2000 mg/kg.
LD50, dermal, Rabbit: > 9400 mg/kg.
LC50, inhalative, Rat: 0,387 mg/l/4h.
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
inhalative, Conversion value: 1,5 mg/l/4h (Dust/mist).
LD50, oral, Rat: > 2000 mg/kg.
LD50, dermal, Rabbit: > 9400 mg/kg (OECD 402).
LC50, inhalativ (mist), Rat: 0,49 mg/l/4h.
LC50, inhalative, Rat: 0,368 mg/l/4h (OECD 403).
LC50, inhalative, Rat: > 2,24 mg/l/1h (OECD 403).

<b>Serious eye damage/irritation</b>	Toxicological data of complete product are not available. Irritant Calculation method
<b>Skin corrosion/irritation</b>	Toxicological data of complete product are not available. Irritant Calculation method
<b>Respiratory or skin sensitisation</b>	Toxicological data of complete product are not available. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Calculation method
<b>Specific target organ toxicity — single exposure</b>	Toxicological data of complete product are not available. May cause respiratory irritation. Calculation method
<b>Specific target organ toxicity — repeated exposure</b>	Toxicological data of complete product are not available. May cause damage to organs through prolonged or repeated exposure. Calculation method
<b>Mutagenicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Reproduction toxicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Carcinogenicity</b>	Toxicological data of complete product are not available.



<b>Aspiration hazard</b>	Suspected of causing cancer.
	Calculation method
<b>General remarks</b>	Based on the available information, the classification criteria are not fulfilled.

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
2,2'-methylenediphenyl diisocyanate, CAS: 2536-05-2
LC50, (96h), Danio rerio: > 1000 mg/l (OECD 203).
EC50, (72h), Scenedesmus subspicatus: > 1640 mg/l (OECD 201).
EC50, (24h), Daphnia magna: > 1000 mg/l (OECD 202).
EC50, (3h), Bacteria: > 100 mg/l (OECD 209).
NOEC, (21d), Daphnia magna: > 10 mg/l (OECD 202).
Diphenylmethanediisocyanate, isomeres and homologues, CAS: 9016-87-9
LC50, (96h), Danio rerio: > 1000 mg/l (OECD 203).
EC50, (3h), Bacteria: > 100 mg/l (OECD 209).
EC50, (24h), Daphnia magna: > 1000 mg/l (OECD 202).
NOEC, (21d), Daphnia magna: > 10 mg/l (OECD 202).
ErC50, (72h), Scenedesmus subspicatus: > 1640 mg/l (OECD 201).
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane, CAS: 2530-83-8
LC50, (48h), ca. 324 mg/l (Simocephalus vetulus).
LC50, (96h), Cyprinus carpio: ca. 55 mg/l.
EC50, Algae: 119 mg/l/7d.
NOEC, (21d), Daphnia magna: >= 100 mg/l (OECD 211).
NOEC, Algae: < 50 mg/l/7d.
EC10, Algae: 40 mg/l/7d.
o-(p-isocyanatobenzyl)phenyl isocyanate, CAS: 5873-54-1
LC50, (96h), fish: > 1000 mg/l.
EC50, (3h), Bacteria: > 100 mg/l (OECD 209).
EC50, (24h), Daphnia magna: > 1000 mg/l.
NOEC, (21d), Daphnia magna: > 10 mg/l (OECD 202).
ErC50, (72h), Scenedesmus subspicatus: > 1640 mg/l (OECD 201).
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
LC50, (96h), Danio rerio: > 1000 mg/l (OECD 203).
ErC50, (72h), Scenedesmus subspicatus: > 1640 mg/l (OECD 201).

**12.2 Persistence and degradability**(CAS 32055-14-4) Henry-Konstante : 0,0229 Pa\*m<sup>3</sup>/mol

<b>Behaviour in environment compartments</b>	not determined
<b>Behaviour in sewage plant</b>	not determined
<b>Biological degradability</b>	The product is not biodegradable.

**12.3 Bioaccumulative potential**

(CAS 32055-14-4) - Accumulation in organisms is not expected.  
(CAS 9016-87-9) BCF : < 14 (42d, OECD 305C)

**12.4 Mobility in soil**

No information available.

**12.5 Results of PBT and vPvB assessment**

No information available.

**12.6 Other adverse effects**

Ecological data of complete product are not available.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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

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

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

**Product**

Dispose of as hazardous waste.

Dispose of as hazardous waste.

Coordinate disposal with the authorities if necessary.

Coordinate disposal with the authorities if necessary.

**Waste no. (recommended)**

080501\*

080501\*

**Contaminated packaging**

Uncontaminated packaging may be taken for recycling.

Uncontaminated packaging may be taken for recycling.

Packaging that cannot be cleaned should be disposed of as for product.

Packaging that cannot be cleaned should be disposed of as for product.

**Waste no. (recommended)**

150110\*

150110\*

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

**Transport by land according to ADR/RID** not applicable

**Inland navigation (ADN)** not applicable

**Marine transport in accordance with IMDG** not applicable

**Air transport in accordance with IATA** not applicable

**14.2 UN proper shipping name**

Transport by land according to ADR/RID	NO DANGEROUS GOODS
Inland navigation (ADN)	NO DANGEROUS GOODS
Marine transport in accordance with IMDG	NOT CLASSIFIED AS "DANGEROUS GOODS"
Air transport in accordance with IATA	NOT CLASSIFIED AS "DANGEROUS GOODS"

**14.3 Transport hazard class(es)**

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

**14.4 Packing group**

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

**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**

not applicable  
not applicable

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

<b>EEC-REGULATIONS</b>	1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830
<b>TRANSPORT-REGULATIONS</b>	DOT-Classification, ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2016).
<b>NATIONAL REGULATIONS (GB):</b>	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 (2010/75/CE)	not applicable

**15.2 Chemical safety assessment**

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

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

H318 Causes serious eye damage.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H373 May cause damage to organs through prolonged or repeated exposure through inhalation.  
H351 Suspected of causing cancer.  
H335 May cause respiratory irritation.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H332 Harmful if inhaled.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H315 Causes skin irritation.

**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  
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

**16.3 Other information****Customs Tariff**

not determined

**Classification procedure**

Carc. 2: H351 Suspected of causing cancer. (Calculation method)

Acute Tox. 4: H332 Harmful if inhaled. (Calculation method)

STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (Calculation method)

Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)

Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)

STOT SE 3: H335 May cause respiratory irritation. (Calculation method)

Resp. Sens. 1: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. (Calculation method)

Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)

**Modified position**

SECTION 16 been added: GENERAL REVIEW [CLP; REACH-(EU) 2015/830]

**Copyright: Chemiebüro®**

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****MD-PU-Speed Part B**  
**Article number: MPU****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 +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**

<b>Technical information</b>	info@marston-domsel.de
<b>Safety Data Sheet</b>	sdb@chemiebuero.de

**1.4 Emergency telephone number**

<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**

Skin Irrit. 2: H315 Causes skin irritation.  
 Eye Dam. 1: H318 Causes serious eye damage.  
 Skin Sens. 1: H317 May cause an allergic skin reaction.  
 Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.

**2.2 Label elements**

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

**Hazard pictograms****Signal word**

DANGER

**Contains:**

4,4'-Methylenebis(cyclohexylamine)

**Hazard statements**

H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H317 May cause an allergic skin reaction.  
 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.  
 P280 Wear protective gloves / eye protection / face protection.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a POISON CENTER / doctor.  
 P333+P313 If skin irritation or rash occurs: Get medical advice / attention.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

**2.3 Other hazards****Human health dangers**

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

**Other hazards**

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

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

The product is a mixture.

Range [%]	Substance
50 - < 80	Ethylenediamine, propoxylated
	CAS: 25214-63-5, EINECS/ELINCS: 500-035-6, Reg-No.: 01-2119471485-32
	GHS/CLP: Eye Irrit. 2: H319
< 5	4,4'-Methylenebis(cyclohexylamine)
	CAS: 1761-71-3, EINECS/ELINCS: 217-168-8, Reg-No.: 01-2119541673-38-XXXX
	GHS/CLP: Acute Tox. 4: H302 - Skin Corr. 1B: H314 - Eye Dam. 1: H318 - Skin Sens. 1B: H317 - STOT RE 2: H373
< 5	Trimethoxyvinylsilane
	CAS: 2768-02-7, EINECS/ELINCS: 220-449-8, Reg-No.: 01-2119513215-52-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H332

**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**

Remove the victim into fresh air and keep him calm.  
In the event of symptoms seek medical treatment.

**Skin contact**

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

**Eye contact**

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

**Ingestion**

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

**4.2 Most important symptoms and effects, both acute and delayed**

No information available.

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

Treat symptomatically.  
Forward this sheet to the doctor.

**SECTION 5: Fire-fighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Carbon dioxide.  
Dry powder.  
Sand.

**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**

Do not inhale explosion and/or combustion gases.  
Use self-contained breathing apparatus.

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



## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.  
Use personal protective equipment.  
High risk of slipping due to leakage/spillage of product.

### 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, 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

Use only in well-ventilated areas.  
Vacuuming in situ required.  
Keep away from all sources of ignition - Refrain from smoking.  
Do not eat, drink or smoke when using this product.  
Wash hands before breaks and after work.  
Use barrier skin cream.  
Contaminated work clothing should not be allowed out of the workplace.  
Take off contaminated clothing and wash before reuse.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.  
Prevent penetration into the ground.  
Do not store together with oxidizing agents.  
Keep container tightly closed.  
Keep container in a well-ventilated place.  
Store in a dry place.  
Do not keep at temperatures above 50 °C.

### 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)**

not applicable

**DNEL**

Substance
Ethylenediamine, propoxylated, CAS: 25214-63-5
Industrial, inhalative, Long-term - systemic effects: 98 mg/m <sup>3</sup> .
Industrial, dermal, Long-term - systemic effects: 13,9 mg/kg bw/d.
general population, oral, Long-term - systemic effects: 8,3 mg/kg bw/d.
general population, dermal, Long-term - systemic effects: 8,3 mg/kg bw/d.
general population, inhalative, Long-term - systemic effects: 29 mg/m <sup>3</sup> .
Trimethoxyvinylsilane, CAS: 2768-02-7
Industrial, inhalative, Acute - systemic effects: 4,9 mg/m <sup>3</sup> .
Industrial, inhalative, Long-term - systemic effects: 4,9 mg/m <sup>3</sup> .
Industrial, dermal, Long-term - systemic effects: 0,69 mg/kg bw/d.
Industrial, dermal, Acute - systemic effects: 0,69 mg/kg bw/d.
4,4'-Methylenebis(cyclohexylamine), CAS: 1761-71-3
Industrial, dermal, Long-term - systemic effects: 0,1 mg/kg bw/d.
Industrial, inhalative, Long-term - systemic effects: 1 mg/m <sup>3</sup> .
general population, oral, Long-term - systemic effects: 0,06 mg/kg bw/d.
general population, dermal, Long-term - systemic effects: 0,06 mg/kg bw/d.
general population, inhalative, Long-term - systemic effects: 0,21 mg/m <sup>3</sup> .

**PNEC**

Substance
Ethylenediamine, propoxylated, CAS: 25214-63-5
sewage treatment plants (STP), 70 mg/l.
soil, 0,0162 mg/kg dw.
sediment (seawater), 0,0074 mg/kg dw.
sediment (freshwater), 0,074 mg/kg dw.
freshwater, 0,0085 mg/l.
freshwater, 0,085 mg/l.
Trimethoxyvinylsilane, CAS: 2768-02-7
sewage treatment plants (STP), 110 mg/l.
seawater, 0,034 mg/l.
freshwater, 0,34 mg/l.
4,4'-Methylenebis(cyclohexylamine), CAS: 1761-71-3
soil, 0,072 mg/kg dw.
sediment (seawater), 0,039 mg/kg dw.
sediment (freshwater), 0,39 mg/kg dw.
sewage treatment plants (STP), 80 mg/l.
seawater, 0,0008 mg/l.
freshwater, 0,008 mg/l.

**8.2 Exposure controls**

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation.
<b>Eye protection</b>	safety glasses (EN 166:2001)
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact: ≥ 0,5 mm Nitrile rubber, >480 min (EN 374-1/-2/-3). ≥ 0,5 mm Butyl rubber, >480 min (EN 374-1/-2/-3). ≥ 0,5 mm PVC (EN 374-1/-2/-3). In splash contact: ≥ 0,5 mm Nitrile rubber, >120 min (EN 374-1/-2/-3). ≥ 0,5 mm butyl rubber, > 120 min (EN 374)
<b>Skin protection</b>	Protective overalls.
<b>Other</b>	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.
<b>Respiratory protection</b>	Breathing apparatus in the event of high concentrations. Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	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**

<b>Form</b>	liquid
<b>Color</b>	black
<b>Odor</b>	perceptible
<b>Odour threshold</b>	not determined
<b>pH-value</b>	not determined
<b>pH-value [1%]</b>	not determined
<b>Boiling point [°C]</b>	not determined
<b>Flash point [°C]</b>	> 150
<b>Flammability (solid, gas) [°C]</b>	> 300 The product is not explosive.
<b>Lower explosion limit</b>	not determined
<b>Upper explosion limit</b>	not determined
<b>Oxidising properties</b>	no
<b>Vapour pressure/gas pressure [kPa]</b>	not determined
<b>Density [g/ml]</b>	1,02 (23°C)
<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>	3000 mPas (23°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 self-igniting
<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 oxidizing agents.

Reactions with isocyanates.

### **10.4 Conditions to avoid**

Strong heating.

### **10.5 Incompatible materials**

See SECTION 10.3.

### **10.6 Hazardous decomposition products**

No hazardous decomposition products known.

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

Substance
Ethylenediamine, propoxylated, CAS: 25214-63-5
LD50, dermal, Rat: > 2000 mg/kg bw.
LD50, oral, Rat: > 2000 mg/kg bw.
NOAEL, oral, Rat: 1000 mg/kg bw/4w.
Trimethoxyvinylsilane, CAS: 2768-02-7
LD50, inhalative, Rat: 16,8 mg/l (4 h) (OECD TG 403).
LD50, dermal, Rabbit: 3540 mg/kg (RTECS).
LD50, oral, Rat: 7120 mg/kg (OECD TG 401).
NOAEL, inhalative, Rat: 0,058 mg/l (98 d).
NOAEL, oral, Rat: < 62,5 mg/kg (28 d) (OECD TG 422).
4,4'-Methylenebis(cyclohexylamine), CAS: 1761-71-3
LD50, dermal, Rabbit: 2110 mg/kg.
LD50, oral, Rat: 625 mg/kg.

<b>Serious eye damage/irritation</b>	Toxicological data of complete product are not available. Risk of serious damage to eyes. Calculation method
<b>Skin corrosion/irritation</b>	Toxicological data of complete product are not available. Irritant Calculation method
<b>Respiratory or skin sensitisation</b>	Toxicological data of complete product are not available. May produce an allergic reaction. Calculation method
<b>Specific target organ toxicity — single exposure</b>	Toxicological data of complete product are not available. No classification. Calculation method
<b>Specific target organ toxicity — repeated exposure</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Mutagenicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Reproduction toxicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Carcinogenicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Aspiration hazard</b>	Based on the available information, the classification criteria are not fulfilled.
<b>General remarks</b>	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
Ethylenediamine, propoxylated, CAS: 25214-63-5
LC50, (96h), Leuciscus idus: 4600 mg/l.
EC50, (48h), Daphnia magna: > 100 mg/l.
ErC50, (72h), Desmodesmus subspicatus: 150,67 mg/l.
Trimethoxyvinylsilane, CAS: 2768-02-7
LC50, (96h), Oncorhynchus mykiss: 191 mg/l.
EC50, Pseudokirchneriella subcapitata: 210 mg/l (7 d) (US-EPA).
EC50, (48h), Daphnia magna: 168,7 mg/l (92/69/EWG C.2).
EC10, Pseudomonas putida: 1000 mg/l (5 h).
4,4'-Methylenebis(cyclohexylamine), CAS: 1761-71-3
LC50, (96h), Leuciscus idus: 46 - 100 mg/l.
EC50, (72h), Algae: 140 - 200 mg/l.
EC50, (48h), Daphnia magna: 6,84 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>	The product is only slightly biodegradable.

**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**

Do not discharge product unmonitored into the environment or into the drainage.  
The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

**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.  
For recycling, consult manufacturer.

**Waste no. (recommended)**

080409\*

**Contaminated packaging**

Packaging that cannot be cleaned should be disposed of as for product.

**Waste no. (recommended)**

150110\*



<b>SECTION 14: Transport information</b>
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**14.1 UN number**

Transport by land according to ADR/RID	not applicable
--	----------------

Inland navigation (ADN)	not applicable
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Marine transport in accordance with IMDG	not applicable
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Air transport in accordance with IATA	not applicable
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**14.2 UN proper shipping name**

Transport by land according to ADR/RID	NO DANGEROUS GOODS
--	--------------------

Inland navigation (ADN)	NO DANGEROUS GOODS
-------------------------	--------------------

Marine transport in accordance with IMDG	NOT CLASSIFIED AS "DANGEROUS GOODS"
--	-------------------------------------

Air transport in accordance with IATA	NOT CLASSIFIED AS "DANGEROUS GOODS"
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**14.3 Transport hazard class(es)**

Transport by land according to ADR/RID	not applicable
--	----------------

Inland navigation (ADN)	not applicable
-------------------------	----------------

Marine transport in accordance with IMDG	not applicable
--	----------------

Air transport in accordance with IATA	not applicable
---------------------------------------	----------------

**14.4 Packing group**

Transport by land according to ADR/RID	not applicable
--	----------------

Inland navigation (ADN)	not applicable
-------------------------	----------------

Marine transport in accordance with IMDG	not applicable
--	----------------

Air transport in accordance with IATA	not applicable
---------------------------------------	----------------

**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**

not applicable

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

**EEC-REGULATIONS** 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830

**TRANSPORT-REGULATIONS** DOT-Classification, ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2016).

**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 (2010/75/CE)** ca. 63 %

**15.2 Chemical safety assessment**

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

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

H332 Harmful if inhaled.  
 H226 Flammable liquid and vapour.  
 H319 Causes serious eye irritation.  
 H373 May cause damage to hearing organs through prolonged or repeated exposure.  
 H317 May cause an allergic skin reaction.  
 H314 Causes severe skin burns and eye damage.  
 H318 Causes serious eye damage.  
 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  
 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

**16.3 Other information****Customs Tariff**

not determined

**Classification procedure**

Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)  
 Eye Dam. 1: H318 Causes serious eye damage. (Calculation method)  
 Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)  
 Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

**Modified position**

SECTION 16 been added: GENERAL REVIEW [CLP; REACH-(EU) 2015/830]

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