

**PT SAFE PLUS HM/LC**

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

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**Further trade names**

1-K PUR Windscreen adhesive

UFI:

M6UF-FHCY-JP01-9QWG

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

1K-PU-Adhesives, sealants

**Uses advised against**

No information available.

**1.3. Details of the supplier of the safety data sheet**

Company name: PMA/TOOLS GmbH  
Street: Siemensring 42  
Place: D-47877 Willich - Germany  
Telephone: +49 2154 922230  
E-mail: info@pma-tools.de  
Contact person: Labor  
E-mail: msds@pma-tools.de (Please DO NOT use for requesting Safety Data Sheets.)  
Internet: www.pma-tools.de  
Responsible Department: Laboratory

**1.4. Emergency telephone number:**

Telephone number of the company in case of emergencies (24 h):  
+49 (0) 700 / 24 112 112 (PMR)  
+1 872 5888271 (PMR)

Emergency information services / official advisory body:  
<UK> National Poisons Information Service (24 h): 0870 600 6266 (UK only)

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

Acute Tox. 4; H332  
Skin Irrit. 2; H315  
Eye Irrit. 2; H319  
Resp. Sens. 1; H334  
Skin Sens. 1; H317  
STOT SE 3; H335  
STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****GB CLP Regulation****Hazard components for labelling**

Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatobenzene]  
Hexanedioic acid, polymer with 1,6-hexanediol and 1,1'-methylenebis[4-isocyanatobenzene]  
4,4'-methylenediphenyl diisocyanate

**Signal word:** Danger

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**Pictograms:****Hazard statements**

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

**Precautionary statements**

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves and eye protection/face protection.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

**Special labelling of certain mixtures**

As from 24 August 2023 adequate training is required before industrial or professional use.

**Additional advice on labelling**

Further information: <https://www.feica.eu/PUinfo>

**2.3. Other hazards**

Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII. Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

Mixture of the following substances with non-hazardous additions.

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**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
59675-67-1	Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatobenzene]			35 - < 40 %
	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H332 H315 H319 H334 H317 H335 H373			
31075-20-4	Hexanedioic acid, polymer with 1,6-hexanediol and 1,1'-methylenebis[4-isocyanatobenzene]			1 - < 5 %
	Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H315 H319 H334 H317 H335 H373			
101-68-8	4,4'-methylenediphenyl diisocyanate			< 1 %
	202-966-0	615-005-00-9	01-2119457014-47	
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1B, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
59675-67-1		Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatobenzene]	35 - < 40 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists)		
101-68-8	202-966-0	4,4'-methylenediphenyl diisocyanate	< 1 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: LC50 = >2,24 mg/l (dusts or mists); dermal: LD50 = >9.400 mg/kg; oral: LD50 = >2.000 mg/kg Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100 Resp. Sens. 1; H334: >= 0,1 - 100 STOT SE 3; H335: >= 5 - 100		

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. Never give anything by mouth to an unconscious person or a person with cramps.

**After inhalation**

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

Warning: Symptoms/ delayed effects.

**After contact with skin**

Wash with plenty of soap and water. After cleaning apply high-fat content skin care cream. Change contaminated, saturated clothing. In case of skin reactions, consult a physician.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

**After ingestion**

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Call a physician immediately.

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

Respiratory tract: Irritation to respiratory tract, Cough, Dyspnoea

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

May cause sensitization by skin contact.

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

Treat symptomatically.

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**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.  
Water, Carbon dioxide (CO<sub>2</sub>), Foam, Dry extinguishing powder.

**Unsuitable extinguishing media**

Full water jet

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

In case of fire may be liberated: Gases/vapours, toxic

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.  
Wear personal protection equipment (refer to section 8).

**Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.  
Do not allow entering drains or surface water.

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

Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Remove persons to safety.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up****Other information**

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

**6.4. Reference to other sections**

Personal protection equipment: see section 8

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

Wash hands before breaks and after work.  
When using do not eat, drink or smoke.

**Advice on general occupational hygiene**

Take off contaminated clothing and wash it before reuse. Draw up and observe skin protection programme.  
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Provide adequate ventilation as well as local exhaust at critical locations.  
Store in a cool dry place.  
Recommended storage temperature: 15 - 35 °C

**7.3. Specific end use(s)**

No information available.

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## SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

## Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
-	Isocyanates, all (as -NCO) Except methyl isocyanate	-	0.02		TWA (8 h)	WEL
		-	0.07		STEL (15 min)	WEL

## DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
101-68-8	4,4'-methylenediphenyl diisocyanate			
Worker DNEL, acute		dermal	systemic	50 mg/kg bw/day
Worker DNEL, acute		inhalation	systemic	0,1 mg/kg bw/day
Worker DNEL, acute		dermal	local	28,7 mg/cm <sup>2</sup>
Worker DNEL, acute		inhalation	local	0,1 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	systemic	0,05 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	0,05 mg/m <sup>3</sup>
Consumer DNEL, acute		dermal	systemic	25 mg/kg bw/day
Consumer DNEL, acute		inhalation	systemic	0,05 mg/m <sup>3</sup>
Consumer DNEL, acute		oral	systemic	20 mg/kg bw/day
Consumer DNEL, acute		dermal	local	17,2 mg/cm <sup>2</sup>
Consumer DNEL, acute		inhalation	local	0,05 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	systemic	0,025 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	0,025 mg/m <sup>3</sup>

## PNEC values

CAS No	Substance	Value
101-68-8	4,4'-methylenediphenyl diisocyanate	
Freshwater		1 mg/l
Marine water		0,1 mg/l
Micro-organisms in sewage treatment plants (STP)		1 mg/l
Soil		1 mg/kg

## 8.2. Exposure controls



## Appropriate engineering controls

Use only outdoors or in a well-ventilated area. If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

## Individual protection measures, such as personal protective equipment

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**Eye/face protection**

Wear eye/face protection. (EN 166).

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Breakthrough times and swelling properties of the material must be taken into consideration.

Wear suitable gloves. (EN 374).

Recommended material: NBR (Nitrile rubber)

Thickness of the glove material:  $\geq 0,4$  mm

Breakthrough time:: Index No. 2, &gt; 30 Min. / Index No. 6, &gt; 480 Min.

Replace when worn.

**Skin protection**

Use personal protection equipment.

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. (89/686/EWG).

Recommended protective clothing articles: compliant EN 14605 / EN 13982.

**Respiratory protection**

In case of dangerous gases, vapours or dusts self-contained breathing apparatus or suitable masks and filters need to be advised. In case of inadequate ventilation wear respiratory protection.

Suitable respiratory protection apparatus: particle filter ABEK-P2 (EN 14387).

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

Physical state:	solid (Paste)
Colour:	black
Odour:	characteristic
Odour threshold:	No data available

**Changes in the physical state**

Melting point/freezing point:	not applicable
Boiling point or initial boiling point and boiling range:	not applicable
Flash point:	No data available

**Flammability**

Solid/liquid: Non-flammable.

**Explosive properties**

No data available

Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Auto-ignition temperature:	not applicable

**Self-ignition temperature**

Solid:	No data available
Decomposition temperature:	not applicable
pH-Value:	not applicable
Viscosity / kinematic:	not applicable
Water solubility:	practically insoluble

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**Solubility in other solvents**

No data available

Partition coefficient n-octanol/water:

not applicable

Vapour pressure:

&lt; 0,1 hPa

(at 20 °C)

Density (at 20 °C):

1,24 - 1,31 g/cm<sup>3</sup>

Relative vapour density:

not applicable

Particle characteristics:

not applicable

**9.2. Other information****Information with regard to physical hazard classes**

Sustaining combustion:

Not sustaining combustion

**Other safety characteristics****Further Information**

No data available

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

Reacts with : Water, Alcohols, Amines

Reacts with : Humidity (Danger of bursting container. Formation of: Carbon dioxide (CO<sub>2</sub>).)**10.2. Chemical stability**

The mixture is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**

See 10.1 Reactivity

**10.4. Conditions to avoid**

Humidity

**10.5. Incompatible materials**

See 10.1 Reactivity

**10.6. Hazardous decomposition products**

Exothermal decomposition with formation of: Isocyanate

Reacts with : Humidity (Danger of bursting container. Formation of: Carbon dioxide (CO<sub>2</sub>).)**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

Harmful if inhaled.

Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

**ATEmix calculated**

ATE (oral) 200,0 mg/kg; ATE (dermal) 940,0 mg/kg; ATE (inhalation vapour) &gt; 20 mg/l; ATE (inhalation dust/mist) &gt; 5 mg/l

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
59675-67-1	Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatobenzene]				
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			
101-68-8	4,4'-methylenediphenyl diisocyanate				
	oral	LD50 >2.000 mg/kg	Rat		
	dermal	LD50 >9.400 mg/kg	Rabbit		OECD 402
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	LC50 >2,24 mg/l	Rat		OECD 403

**Irritation and corrosivity**

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

Hazardous ingredients: 4,4'-methylenediphenyl diisocyanate

Exposure time: 4 h / Species: Rabbit / Method: OECD 404

Result / Evaluation: Irritant

**Sensitising effects**

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatobenzene]; Hexanedioic acid, polymer with 1,6-hexanediol and 1,1'-methylenebis[4-isocyanatobenzene]; 4,4'-methylenediphenyl diisocyanate)

May cause an allergic skin reaction. (Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatobenzene]; Hexanedioic acid, polymer with 1,6-hexanediol and 1,1'-methylenebis[4-isocyanatobenzene]; 4,4'-methylenediphenyl diisocyanate)

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Carcinogenicity:

Hazardous ingredients: 4,4'-methylenediphenyl diisocyanate

Species: Rat (male-female) / Exposure route: Inhalation Aerosol / Exposure time: 2 y (6 h/d) / Method: OECD 453 (Combined Chronic Toxicity / Carcinogenicity Studies). Result: carcinogenic

Germ cell mutagenicity:

Result: negative

Reproductive toxicity:

No data available

**STOT-single exposure**

May cause respiratory irritation. (Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatobenzene])

**STOT-repeated exposure**

May cause damage to organs through prolonged or repeated exposure. (Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatobenzene])

Exposure route: Inhalation: Aerosols / Exposure time: main: 2y; satellite: 1 (y6 h/d; 5 d/w) / Species: Rat / Method: OECD 453 - Result: NOAEL 0,0002 mg/l/L

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**Aspiration hazard**

Based on available data, the classification criteria are not met.

No data available

**11.2. Information on other hazards****Endocrine disrupting properties**

Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

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

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP] The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see section 3).

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
101-68-8	4,4'-methylenediphenyl diisocyanate					
	Acute fish toxicity	LC50 >1000 mg/l	96 h	Danio rerio (zebrafish)		OECD 203
	Acute algae toxicity	ErC50 >1640 mg/l	72 h	Scenedesmus subspicatus		OECD 201
	Crustacea toxicity	NOEC 10 mg/l	21 d	Daphnia magna (Big water flea)		OECD 211
	Acute bacteria toxicity	EC50 100 mg/l ( )	3 h	activated sludge		OECD 209

**12.2. Persistence and degradability**

There are no data available on the mixture itself.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
101-68-8	4,4'-methylenediphenyl diisocyanate			
	Aerobic biological treatment - OECD 301F	0%	28	
	Not readily biodegradable (according to OECD criteria)			

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
101-68-8	4,4'-methylenediphenyl diisocyanate	4,51

**BCF**

CAS No	Chemical name	BCF	Species	Source
101-68-8	4,4'-methylenediphenyl diisocyanate	92 - 200	Cyprinus carpio (Common Carp)	OECD 305

**12.4. Mobility in soil**

There are no data available on the mixture itself.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

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### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

### 12.7. Other adverse effects

No information available.

### **Further information**

Avoid release to the environment. Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### **Disposal recommendations**

Do not allow to enter into surface water or drains.

Consult the appropriate authorities about waste disposal. Dispose of waste according to applicable legislation.

The waste key according to the European Waste Catalogue (EWC number) refers to the real wastes origin and therefore is not product- but use-oriented.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Recommendation: EAK 080501

#### **List of Wastes Code - residues/unused products**

080501 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes not otherwise specified in 08; waste isocyanates; hazardous waste

#### **Contaminated packaging**

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

### **Land transport (ADR/RID)**

14.1. UN number or ID number: not applicable

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

### **Inland waterways transport (ADN)**

14.1. UN number or ID number: not applicable

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

### **Marine transport (IMDG)**

14.1. UN number or ID number: not applicable

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

### **Air transport (ICAO-TI/IATA-DGR)**

14.1. UN number or ID number: not applicable

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

## SECTION 15: Regulatory information

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**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 56

Directive 2010/75/EU on industrial emissions: 0,2 %

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 1 - slightly hazardous to water

Skin resorption/Sensitization: Permeates easily through outer skin and causes poisoning. Causes allergic hypersensitivity reactions.

**Additional information**

Berufsgenossenschaftliche Informationen (DGUV-Informationen): BGI 524 (M 044) Isocyanate

**15.2. Chemical safety assessment**

For this mixture a chemical safety assessment has been carried out.

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s):

1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

**Abbreviations and acronyms**

ADN: Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways).

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).

ATE: Acute Toxicity Estimate.

AwSV: Anlagenverordnung wassergefährdender Stoffe (Regulation on facilities handling substances dangerous to water).

BGI: Berufsgenossenschaftliche Informationen (trade association information).

BGR: Berufsgenossenschaftliche Regeln (trade association regulation).

CAS: Chemical Abstracts Service.

CEN: Comité Européen de Normalisation European (Committee for Standardization).

CLP: Classification, Labelling and Packaging of substances and mixtures (REGULATION (EC) No 1272/2008).

DIN: Deutsches Institut für Normung (German institute for standardization).

DMEL: Derived Minimum Effect Level.

DNEL: Derived No Effect Level.

EC: European Community.

EC50: Half maximal effective concentration.

ECHA: European Chemicals Agency.

EG: Europäische Gemeinschaft (European Community).

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

EN: European Norms.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

IATA-DGR: International Air Transport Association - Dangerous Goods Regulations.

IBC: Intermediate Bulk Container.

IC50 / ErC50: Inhibitory concentration, 50 %.

ICAO-TI: International Civil Aviation Organization - Technical Instructions for the Safe Transport of Dangerous

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Goods by Air.

IMDG: International Maritime Code for Dangerous Goods.

ISO: International Organization for Standardization.

IUPAC: International Union for Pure and Applied Chemistry.

LC50: Lethal concentration, 50 %.

LD50: Lethal dose, 50 %.

log Kow (Pow): Partition coefficient n-octanol/water.

LQ: Limited Quantities.

MARPOL: International Convention for the Prevention of Marine Pollution from Ships.

OECD: Organisation for Economic Co-operation and Development.

PBT: persistent, bioaccumulative and toxic.

PNEC: Predicted No Effect Concentration.

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006).

RID: Règlement concernant le transport International ferroviaire de marchandises Dangereuses (Regulation concerning the International Carriage of Dangerous Goods by Rail).

SVHC: Substances of Very High Concern.

STOT - RE: Specific Target Organ Toxicity - Repeated Exposure.

STOT - SE: Specific Target Organ Toxicity - Single Exposure.

TRGS: Technische Regel für Gefahrstoffe (technical guideline for the handling of hazardous materials).

UFI: Unique Formula Identifier.

UN: Untitled Nations.

VOC: Volatile organic compounds.

vPvB: very persistent and very bioaccumulative.

WGK: Wassergefährdungsklasse (water hazard class).

**Relevant H and EUH statements (number and full text)**

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

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*