

**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1. Product identifier:**

Product name: POLYURETHANE SEALANT SOLL SP5

Article number: SP5 310B; SP5 310G; SP5 310W

**1.2. Relevant identified uses of the substance or mixture and uses advised against:** One-component elastic adhesive/sealant particularly suitable for automotive.**1.3. Manufacturer/Supplier:**

UAB HELVINA

Parko str. 96, Ramučiai

LT 54464 Kaunas district, Lithuania

Tel.: +370 37308901

Fax : +370 37308902

E-mail : [info@helvina.lt](mailto:info@helvina.lt)

www.helvina.lt

**1.4. Further information obtainable from:****Emergency telephone number:**

Poison control and information office: Tel.: +370 5 236 2052 or +370 687 53378

**SECTION 2. HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture**

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

**2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments**

Hazard classification and indication:

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**2.1.2. Directive 67/548/EEC and following amendments and adjustments**

Danger Symbols: Xn

R phrases: 42

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

**2.2. Label elements**

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Pictograms:



Warning: DANGER

**Hazard statements:**

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

EUH204 Contains isocyanates. May produce an allergic reaction.

**Precautionary statements:**

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

P304+P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.

P342+P311 If experiencing respiratory symptoms: call a POISON CENTER / doctor/...

**Contains:** DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.**2.3. Other hazards.**

Information not available.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****3.1. Substances:**


































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Information not relevant.

**3.2. Mixtures:**

Contains (Classification 67/548/EEC and 1272/2008 (CLP)):

CAS: 90989-38-1 EINECS: 292-694-9 Reg. No. 01- 2119486136-34	Aromatic hydrocarbons, c8 (benzene <0.01%) R10,  Xn R20/21,  Xi R36/37/38, R48/20, R65, Note  Flam. Liq. 3 H226;  Acute Tox. 4 H332;  Acute Tox. 4 H332;  Asp. Tox. 1 H304;  STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315,  STOT SE 3 H335	0 – 8,5 %
CAS: - EINECS: 905-562-9 Reg. No. 01- 2119555267-33	Reactive mixture of ethylbenzene, m-xylene and p-xylene R10;  Xn R20/21,  Xi R36/37/38, R48/20, R65, Note  Flam. Liq. 3 H226;  Acute Tox. 4 H332;  Acute Tox. 4 H332;  Asp. Tox. 1 H304;  STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315,  STOT SE 3 H335	0 - 8,5 %
CAS: 1330-20-7 EINECS: 215-535-7 INDEX: 601-022-00-9 Reg. No. 01- 2119488216-32-XXXX	Xylene (Benzene <0.01%) R10,  Xn R20/21,  Xi R36/37/38, R48/20, R65, Note C  Flam. Liq. 3 H226;  Acute Tox. 4 H332;  Acute Tox. 4 H332;  Asp. Tox. 1 H304;  STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315,  STOT SE 3 H335, Note C	0 – 8,5 %
CAS:141-78-6 EINECS: 205-500-4 INDEX: 607-022-00-5 Reg. No. 01- 2119475103-46	Ethyl acetate  F R11;  Xi R36; R66; R67  Flam. Liq. 2 H225; Eye Irrit. 2 H319;  STOT SE 3 H336; EUH066	1 – 1,5 %
CAS: 9016-87-9 EINECS:-	Diphenylmethane diisocyanate, isomers and homologues Carc. Cat. 3 R40;  Xn R20,  Xi R36/37/38, R42/43; R48/20, Note Carc. 2 H351,  Acute Tox. 4 H332,  STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315,  STOT SE 3 H335, Resp. Sens. 1 H334, Skin Sens. 1 H317	0,8 – 0,9 %

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N =

Dangerous for the Environment(N)

**SECTION 4. FIRST AID MEASURES****4.1. Description of first aid measures.**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

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For symptoms and effects caused by the contained substances, see chap. 11.

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

Information not available.

**SECTION 5. FIRE-FIGHTING MEASURES****5.1. Extinguishing media.**

## SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

## UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

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

## HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

**5.3. Advice for firefighters.**

## GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health.

Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

## SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures.**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions.**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

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

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

**6.4. Reference to other sections.**

Any information on personal protection and disposal is given in sections 8 and 13.

**SECTION 7. HANDLING AND STORAGE****7.1. Precautions for safe handling.**

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation

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and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

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

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

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

Information not available.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

XYLENE (BENZENE <0.01%)

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
MAK	AUS	221	50	442	100	SKIN.
VLEP	BEL	221	50	442	100	SKIN.
TLV	CYP	221	50	442	100	SKIN.
AGW	DEU	440	100	880	200	SKIN.
MAK	DEU	440	100	880	200	SKIN.
VLA	ESP	221	50	442	100	SKIN.
HTP	FIN	220	50	440	100	SKIN.
VLEP	FRA	221	50	442	100	SKIN.
WEL	GRB	220	50	441	100	
TLV	GRC	435	100	650	150	
GVI	HRV	221	50	442	100	SKIN.
MDK	HRV	440	100	655	150	
OEL	IRL	221	50	442	100	SKIN.
TLV	ITA	221	50	442	100	SKIN.
MAK	SWE	221	50 4	42	100	SKIN.
OEL	EU	221	50	442	100	SKIN.
TLV-ACGIH		434	100	651	150	

### Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,327 mg/l
Normal value in marine water	0,327 mg/l
Normal value for fresh water sediment	12,46 mg/kg
Normal value for marine water sediment	12,46 mg/kg
Normal value for water, intermittent release	0,327 mg/l
Normal value of STP microorganisms	6,58 mg/l
Normal value for the terrestrial compartment	2,31 mg/kg

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effect on consumers				Effect on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	1,6 mg/kg/d				
Inhalation			VND	14,8 mg/m <sup>3</sup>	289 mg/m <sup>3</sup>	VND	VND	77 mg/m <sup>3</sup>
Skin			VND	108 mg/kg/d			VND	180 mg/kg/d

REACTIVE MIXTURE OF ETHYLBENZENE, m-XYLENE AND p-XYLENE

### Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,327 mg/l
Normal value in marine water	0,327 mg/l
Normal value for fresh water sediment	12,46 mg/kg
Normal value for marine water sediment	12,46 mg/kg
Normal value for water, intermittent release	0,327 mg/l

**SAFETY DATA SHEET**

according to EC Regulation No. 453/2010, Annex II from 20.05.2010

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Normal value for the terrestrial compartment 2,31 mg/kg

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effect on consumers				Effect on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	1,6 mg/kg/d				
Inhalation	VND	174 mg/m <sup>3</sup>	VND	14,8 mg/m <sup>3</sup>	VND	289 mg/m <sup>3</sup>	VND	77 mg/m <sup>3</sup>
Skin			VND	108 mg/kg/d			VND	180 mg/kg/d

**AROMATIC HYDROCARBONS, C8 (BENZENE <0.01%)**

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm
TLV-ACGIH		434	100	651	150

**Predicted no-effect concentration - PNEC.**

Normal value in fresh water	0,327 mg/l
Normal value in marine water	0,327 mg/l
Normal value for fresh water sediment	12,46 mg/kg
Normal value for marine water sediment	12,46 mg/kg
Normal value for water, intermittent release	0,327 mg/l
Normal value for the terrestrial compartment	2,31 mg/kg

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effect on consumers				Effect on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	1,6 mg/kg/d				
Inhalation			14,8 mg/m <sup>3</sup>	VND			VND	77 mg/m <sup>3</sup>
Skin			VND				VND	180 mg/kg/d

**ETHYL ACETATE**

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm
MAK	AUS	1050	300	2100	600
VLEP	BEL	1461	400		
VEL	CHE	1400	400	2800	800
MAK	CHE	1400	400	2800	800
AGW	DEU	1500	400	3000	800
MAK	DEU	1500	400	3000	800
VLA	ESP	1400	400		
HTP	FIN	1100	300	1800	500
VLEP	FRA	1400	400		
WEL	GRB		200		400
TLV	GRC	1400	400		
GVI	HRV		200		400
MDK	HRV	1400	400		
OEL	IRL		200		400
MAK	SWE	500	150	1100	300
TLV-ACGIH		1441	400		

**Predicted no-effect concentration - PNEC.**

Normal value in fresh water	0,26 mg/l
Normal value in marine water	0,026 mg/l
Normal value for fresh water sediment	1,25 mg/kg
Normal value for marine water sediment	0,125 mg/kg
Normal value for water, intermittent release	1,65 mg/l
Normal value of STP microorganisms	650 mg/l
Normal value for the terrestrial compartment	0,24 mg/kg

Health - Derived no-effect level - DNEL / DMEL								
	Effect on consumers				Effect on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	4,5 mg/kg/d				
Inhalation	734 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>	367 mg/m <sup>3</sup>	367 mg/m <sup>3</sup>	1468 mg/m <sup>3</sup>	1468 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>
Skin			VND	37 mg/kg/d			VND	63 mg/kg/d

## DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.

Threshold Limit Value.

Type	Country	TWA/8h	STEL/15min
		mg/m <sup>3</sup> ppm	mg/m <sup>3</sup> ppm

OEL ITA 0,005

TLV-ACGIH 0,005

**Predicted no-effect concentration - PNEC.**

Normal value in fresh water	0,1 mg/l
Normal value in marine water	0,01 mg/l
Normal value for fresh water sediment	8,2 mg/kg
Normal value for marine water sediment	0,82 mg/kg
Normal value for water, intermittent release	1 mg/l
Normal value of STP microorganisms	100 mg/l
Normal value for the terrestrial compartment	1,58 mg/kg

Health - Derived no-effect level - DNEL / DMEL								
	Effect on consumers				Effect on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	0,5 mg/kg/d				
Inhalation			VND	1,8 mg/m <sup>3</sup>			VND	7,28 mg/m <sup>3</sup>
Skin			VND	0,5 mg/kg/d			VND	1 mg/kg/d

Legend:

(C) = CEILING; INHAL = Inhalable Fraction; RESP = Respirable Fraction; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

**8.2 Exposure controls**

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

**HAND PROTECTION**

Protect your hands with work gloves, category III (ref. standard EN 374). For the final choice of material you need to assess the type of use. In case of contact for the short term or as protection against splashes, use gloves made of butyl rubber or nitrile (0.4mm thickness, permeation time <30 min.). In the event of continued exposure use Viton gloves (0.4mm thickness, permeation time > 30 min.). Contaminated gloves should be removed.

**SKIN PROTECTION**

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

**EYE PROTECTION**

Wear airtight protective goggles (see standard EN 166).

**RESPIRATORY PROTECTION**

In case of exceeding the threshold value (eg, TLV-TWA) of the substance or one or more of the substances present in the product, it is advisable to wear a mask with filter type A for organic vapors, the class (1, 2 or 3) must be chosen according to the limit concentration of use (1000, 5000 or 10000 ppm) (ref. standard EN 14387).

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

Appearance:	Paste
Colour:	Black, grey, white
Odour:	Typical

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Odour threshold:	Not available
pH:	Not available
Melting point/freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash point:	$200 > T \leq 0 \text{ } ^\circ\text{C}$
Evaporation rate:	Not available
Flammability (solid, gas):	Not available
Explosive limits:	Not available
Vapour tension:	Not available
Vapour density (air=1):	Not available
Relative density:	1,26 Kg/l
Solubility in water:	Not available
Solubility in organic solvents:	Not available
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	$> 250 \text{ } ^\circ\text{C}$
Decomposition temperature:	Not available
Viscosity:	50000 - 110000 cps
Explosive properties:	Not available
Oxidising properties:	Not available
<b>9.2. Other information:</b>	
VOC (Directive 1999/13/EC):	9,98 % - 125,75 g/l.
VOC (volatile carbon):	Not available.

## SECTION 10. STABILITY AND REACTIVITY

### 10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

ETHYL ACETATE: decomposes slowly into acetic acid and ethanol under the effect of light, air and water.

### 10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

### 10.3. Possibility of hazardous reactions.

The vapours may also form explosive mixtures with the air.

ETHYL ACETATE: risk of explosion on contact with: metals, alkalis, hydrides. oleum. can react violently with: fluoride, strong oxidising agents, chlorosulfuric acid, potassium tert-butoxide. Forms explosive mixtures with the air.

### 10.4. Conditions to avoid.

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHYL ACETATE: avoid exposure to light, sources of heat and naked flames.

### 10.5. Incompatible materials.

ETHYL ACETATE: acids and bases, strong oxidising agents; aluminium and some plastics, nitrates and chlorosulphuric acid.

### 10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Inhalation of this product causes sensitization, which may then give rise to a series of inflammatory episodes, most of all characterized by obstruction and affecting the respiratory system. Sometimes, sensitization phenomena arise together with evident rhinitis and asthma.

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Damages to the respiratory system depend on the inhaled quantity, on the product concentration in the working environment and on the exposure time.

**DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.**

LD50 (Oral)	> 10000 mg/kg Rattus sp.
LD50 (Dermal)	> 9400 mg/kg Oryctolagus sp.
LC50 (Inhalation)	0,31 mg/l/4h Rattus sp.

**AROMATIC HYDROCARBONS, C8 (BENZENE <0.01%)**

LD50 (Oral)	5627 mg/kg Mus sp.
LD50 (Dermal)	> 5000 ml/kg Oryctolagus sp.
LC50 (Inhalation)	6700 ppm Rattus sp.

**REACTIVE MIXTURE OF ETHYLBENZENE, m-XYLENE AND p-XYLENE**

LD50 (Oral)	5627 mg/kg Mus sp.
LD50 (Dermal)	> 5000 ml/kg Oryctolagus sp.
LC50 (Inhalation)	6700 ppm/4h Rattus sp.

**ETHYL ACETATE**

LD50 (Oral)	5620 mg/kg Rattus sp.
LC50 (Inhalation)	1600 mg/kg Oryctolagus sp.

**XYLENE (BENZENE <0.01%)**

LD50 (Oral)	5627 mg/kg Rattus sp.
LD50 (Dermal)	> 5000 mg/kg Oryctolagus sp.
LC50 (Inhalation)	20 mg/l/4h Rattus sp.

**SECTION 12. ECOLOGICAL INFORMATION**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

**12.1. Toxicity.****DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.**

LC50 - for Fish	> 1000 mg/l/96h Danio rerio
EC50 - for Algae / Aquatic Plants	> 1640 mg/l/72h Scenedesmus subspicatus
Chronic NOEC for Crustacea	> 10 mg/l Daphnia magna

**AROMATIC HYDROCARBONS, C8 (BENZENE <0.01%)**

LC50 - for Fish	2,6 mg/l/96h Salmo gairdneri
EC10 for Algae / Aquatic Plants	1,9 mg/l/72h Selastrum capricornutum

**REACTIVE MIXTURE OF ETHYLBENZENE, m-XYLENE AND p-XYLENE**

LC50 - for Fish	2,6 mg/l/96h Salmo gairdneri
EC10 for Algae / Aquatic Plants	1,9 mg/l/72h Selastrum capricornutum

**ETHYL ACETATE**

LC50 - for Fish	> 212 mg/l/96h
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**XYLENE (BENZENE <0.01%)**

LC50 - for Fish	2,6 mg/l/96h
EC50 - for Algae / Aquatic Plants	4,36 mg/l/72h

**12.2. Persistence and degradability.****DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.**

NOT rapidly biodegradable.

**ETHYL ACETATE**

Solubility in water	> 10000 mg/l
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Rapidly biodegradable.

**12.3. Bioaccumulative potential.****ETHYL ACETATE**

Partition coefficient: n-octanol/water	0,68
BCF	30

**12.4. Mobility in soil.**

Information not available.

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

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.



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**12.6. Other adverse effects.**

Information not available.

**SECTION 13. DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods.**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

**CONTAMINATED PACKAGING**

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

**SECTION 14. TRANSPORT INFORMATION**

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

**14.1. UN number**

Not applicable.

**14.2. UN proper shipping name**

Not applicable.

**14.3. Transport hazard class(es)**

Not applicable.

**14.4. Packing group**

Not applicable.

**14.5. Environmental hazards**

Not applicable.

**14.6. Special precautions for user**

Not dangerous for transport.

Irritating to skin or eyes.

Protect from moisture.

Keep away from foodstuffs, acids and alkalis.

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

Not applicable.

**SECTION 15. REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Seveso category. None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point. 3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

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Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

German regulation on the classification of substances hazardous to water (VwVwS 2005).

WGK 2: Hazard to waters

**15.2. Chemical safety assessment:**

No chemical safety assessment has been processed for the mixture and the substances it contains.

**SECTION 16. OTHER INFORMATION****Text of hazard (H) indications mentioned in section 2-3 of the sheet:**

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Carc. 2	Carcinogenicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Resp. Sens. 1	Respiratory sensitization, category 1
Skin Sens. 1	Skin sensitization, category 1
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H351	Suspected of causing cancer.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
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.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH204	Contains isocyanates. May produce an allergic reaction.

**Text of risk (R) phrases mentioned in section 2-3 of the sheet:**

R10	Flammable.
R11	Highly flammable.
R20	Harmful by inhalation.
R20/21	Harmful by inhalation and in contact with skin.
R36	Irritating to eyes.
R36/37/38	Irritating to eyes, respiratory system and skin.
Carc. Cat. 3	Carcinogenicity, category 3.
R40	Limited evidence of a carcinogenic effect.
R42	May cause sensitization by inhalation.
R42/43	May cause sensitization by inhalation and skin contact.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

## LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road

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- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

#### GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
  2. Directive 67/548/EEC and following amendments and adjustments
  3. Regulation (EU) 1907/2006 (REACH) of the European Parliament
  4. Regulation (EU) 1272/2008 (CLP) of the European Parliament
  5. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
  6. Regulation (EU) 453/2010 of the European Parliament
  7. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
  8. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
  9. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
  10. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
  11. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - Niosh - Registry of Toxic Effects of Chemical Substances
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
  - ECHA website

#### Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product. This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses. Provide appointed staff with adequate training on how to use chemical products.