

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

P4-Aquapur

Version 1 Date of compilation: 11/06/2010

Version 294 (replaces version 293)

Revision date: 27/08/2024

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: Aquapur
Product Code: P4

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

Component of a system of water-reactive resin for injection

Uses advised against:

Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: **KRYPTON CHEMICAL SL**
Address: Martí i Franquès 12. Pol. Ind. les Tàpies
City: 43890 l'Hospitalet de l'Infant
Province: Spain
Telephone: +34 977 822 245
Fax: +34 977 823 977
E-mail: rayston@kryptonchemical.com
Web: www.kryptonchemical.com

1.4 Emergency telephone number: +34 977 822 245 (Only available during office hours; Monday-Friday; 08:00-18:00)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance or mixture.

In accordance with Regulation (EC) No 1272/2008:

Carc. 2 : Suspected of causing cancer.

Eye Irrit. 2 : Causes serious eye irritation.

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

Skin Irrit. 2 : Causes skin irritation.

Skin Sens. 1 : May cause an allergic skin reaction.

STOT RE 2 : May cause damage to organs through prolonged or repeated exposure if inhaled.

STOT SE 3 : May cause respiratory irritation.

2.2 Label elements.

Labelling in accordance with Regulation (EC) No 1272/2008:

Pictograms:



Signal Word:

Danger

Hazard statements:

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
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 if inhaled.

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Precautionary statements:

P201	Obtain special instructions before use.
P260	Do not breathe mist or vapours.
P280	Wear protective gloves/protective clothing/eye protection/face protection
P284	[In case of inadequate ventilation] wear respiratory protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P321	Specific treatment (see supplemental first aid instructions on this label)
P342+P311	Call a POISON CENTER/doctor if you feel unwell.

EUH statements:

EUH204	Contains isocyanates. May produce an allergic reaction. As from 24 August 2023 adequate training is required before industrial or professional use.
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Contains:

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate
2,2'-methylenediphenyl diisocyanate, diphenylmethane-2,2'-diisocyanate
o-(p-isocyanatobenzyl)phenyl isocyanate, diphenylmethane-2,4'-diisocyanate

2.3 Other hazards.

The mixture does not contain substances classified as PBT.
The mixture does not contain substances classified as vPvB.
The mixture does not contain any endocrine disrupting properties substances.

In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Not applicable.

3.2 Mixtures.

Substances posing a danger to health or the environment in accordance with the Regulation (EC) No. 1272/2008, assigned a Community exposure limit in the workplace, and classified as PBT/vPvB or included in the Candidate List:

Identifiers	Name	Concentrate	(*)Classification - Regulation (EC) No 1272/2008	
			Classification	Specifics concentration limits and Acute toxicity estimate
Index No: 607-194-00-1 CAS No: 108-32-7 EC No: 203-572-1 Registration No: 01-2119537232-48-XXXX	propylene carbonate	10 - 50 %	Eye Irrit. 2, H319	-
Index No: 615-005-00-9 CAS No: 101-68-8 EC No: 202-966-0 Registration No: 01-2119457014-47-XXXX	[1] 4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate	10 - 25 %	Acute Tox. 4 *, H332 - Carc. 2, H351 - Eye Irrit. 2, H319 - Resp. Sens. 1, H334 - Skin Irrit. 2, H315 - Skin Sens. 1, H317 - STOT RE 2 *, H373** - STOT SE 3, H335	Eye Irrit. 2, H319: C ≥ 5 % Skin Irrit. 2, H315: C ≥ 5 % Resp. Sens. 1, H334: C ≥ 0,1 % STOT SE 3, H335: C ≥ 5 %

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Index No: 615-005-00-9 CAS No: 5873-54-1 EC No: 227-534-9 Registration No: 01-2119480143-45-XXXX	[1] o-(p-isocyanatobenzyl)phenyl isocyanate, diphenylmethane-2,4'-diisocyanate	1 - 5 %	Acute Tox. 4 *, H332 - Carc. 2, H351 - Eye Irrit. 2, H319 - Resp. Sens. 1, H334 - Skin Irrit. 2, H315 - Skin Sens. 1, H317 - STOT RE 2 *, H373** - STOT SE 3, H335	Eye Irrit. 2, H319: C ≥ 5 % Skin Irrit. 2, H315: C ≥ 5 % Resp. Sens. 1, H334: C ≥ 0,1 % STOT SE 3, H335: C ≥ 5 %
Index No: 615-005-00-9 CAS No: 2536-05-2 EC No: 219-799-4 Registration No: 01-2119927323-43-XXXX	[1] 2,2'-methylenediphenyl diisocyanate, diphenylmethane-2,2'-diisocyanate	1 - 5 %	Acute Tox. 4 *, H332 - Carc. 2, H351 - Eye Irrit. 2, H319 - Resp. Sens. 1, H334 - Skin Irrit. 2, H315 - Skin Sens. 1, H317 - STOT RE 2 *, H373** - STOT SE 3, H335	Eye Irrit. 2, H319: C ≥ 5 % Skin Irrit. 2, H315: C ≥ 5 % Resp. Sens. 1, H334: C ≥ 0,1 % STOT SE 3, H335: C ≥ 5 %
CAS No: 77-99-6 EC No: 201-074-9 Registration No: 01-2119486799-10-XXXX	propylidynetrimethanol	0.1 - 3 %	Repr. 2, H361	-

(*) The complete text of the H phrases is given in section 16 of this Safety Data Sheet.

*, ** See Regulation (EC) No. 1272/2008, Annex VI, section 1.2.

[1] Substance with a European Union exposure limit in the workplace (see section 8.1).

SECTION 4: FIRST AID MEASURES.

IRRITANT MIXTURE. Its repeated or prolonged contact with the skin or mucous membranes can cause irritant symptoms such as reddening of the skin, blisters, or dermatitis. Some of the symptoms may not be immediate. They can cause allergic reactions on the skin.

4.1 Description of first aid measures.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation.

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration. Do not administer anything orally. If unconscious, place them in a suitable position and seek medical assistance.

Eye contact.

Remove contact lenses, if present and if it is easy to do. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Don't let the person to rub the affected eye.

Skin contact.

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

Ingestion.

If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting.

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

Irritant Product, repeated or prolonged contact with skin or mucous membranes can cause redness, blisters or dermatitis, inhalation of spray mist or particles in suspension may cause irritation of the respiratory tract, some symptoms may not be immediate.

Long-term chronic exposure may result in injury to certain organs or tissues.

It may cause an allergic reaction, dermatitis, redness or inflammation of the skin.

It may cause an allergic reaction in the respiratory system. Chronic exposure can lead to asthma.

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

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In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious. Keep the person comfortable. Turn him/her over to the left side and stay there while waiting for medical care.

SECTION 5: FIREFIGHTING MEASURES.

The product does not present any particular risk in case of fire.

5.1 Extinguishing media.

Suitable extinguishing media:

Extinguisher powder or CO₂. In case of more serious fires, also alcohol-resistant foam and water spray.

Unsuitable extinguishing media:

Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

5.2 Special hazards arising from the substance or mixture.

Special risks.

Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.

Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Product not classified as hazardous for the environment, avoid spillage as much as possible.

6.3 Methods and material for containment and cleaning up.

Contain and collect spillage with inert absorbent material (earth, sand, vermiculite, Kieselguhr...) and clean the area immediately with a suitable decontaminant.

Deposit waste in closed and suitable containers for disposal, in compliance with local and national regulations (see section 13).

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

For personal protection, see section 8.

In the application area, smoking, eating, and drinking must be prohibited.

Follow legislation on occupational health and safety.

Never use pressure to empty the containers. They are not pressure-resistant containers. Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. Observe indications on the label. Store the containers between 5 and 25 °C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

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The product is not affected by Directive 2012/18/EU (SEVESO III).

7.3 Specific end use(s).

Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

Work exposure limit for:

Name	CAS No.	Country	Limit value	ppm	mg/m ³
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate	101-68-8	European Union [1]	Eight hours		0,06 (Calculated as NCO, skin dermal and respiratory sensitization)
			Short term		0,012 (Calculated as NCO, skin dermal and respiratory sensitization)
o-(p-isocyanatobenzyl)phenyl isocyanate, diphenylmethane-2,4'-diisocyanate	5873-54-1	European Union [1]	Eight hours		0,06 (Calculated as NCO, skin dermal and respiratory sensitization)
			Short term		0,012 (Calculated as NCO, skin dermal and respiratory sensitization)
2,2'-methylenediphenyl diisocyanate, diphenylmethane-2,2'-diisocyanate	2536-05-2	European Union [1]	Eight hours		0,06 (Calculated as NCO, skin dermal and respiratory sensitization)
			Short term		0,012 (Calculated as NCO, skin dermal and respiratory sensitization)

[1] According both Binding Occupational Exposure Limits (BOELVs) and Indicative Occupational Exposure Limits (IOELVs) adopted by Scientific Committee for Occupational Exposure Limits to Chemical Agents (SCOEL).

The product does NOT contain substances with Biological Limit Values.

Concentration levels DNEL/DMEL:

Name	DNEL/DMEL	Type	Value
propylene carbonate CAS No: 108-32-7 EC No: 203-572-1	DNEL (Workers)	Inhalation, Chronic, Local effects	20 (mg/m ³)
	DNEL (Workers)	Inhalation, Chronic, Systemic effects	176 (mg/m ³)
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate CAS No: 101-68-8 EC No: 202-966-0	DNEL (Workers)	Inhalation, Chronic, Local effects	0,05 (mg/m ³)
	DNEL (Workers)	Inhalation, Chronic, Systemic effects	0,05 (mg/m ³)
o-(p-isocyanatobenzyl)phenyl isocyanate, diphenylmethane-2,4'-diisocyanate CAS No: 5873-54-1 EC No: 227-534-9	DNEL (Workers)	Inhalation, Chronic, Local effects	0,05 (mg/m ³)
	DNEL (Workers)	Inhalation, Chronic, Systemic effects	0,05 (mg/m ³)
propylidynetrimethanol CAS No: 77-99-6 EC No: 201-074-9	DNEL (Workers)	Inhalation, Chronic, Systemic effects	19,54 (mg/m ³)

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DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

8.2 Exposure controls.

Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	100 %		
Uses:	Component of a system of water-reactive resin for injection		
Breathing protection:			
PPE:	Filter mask for protection against gases and particles.		
Characteristics:	«CE» marking, category III. The mask must have a wide field of vision and an anatomically designed form in order to be sealed and watertight.		
CEN standards:	EN 136, EN 140, EN 405		
Maintenance:	Should not be stored in places exposed to high temperatures and damp environments before use. Special attention should be paid to the state of the inhalation and exhalation valves in the face adaptor.		
Observations:	Read carefully the manufacturer's instructions regarding the equipment's use and maintenance. Attach the necessary filters to the equipment according to the specific nature of the risk (Particles and aerosols: P1-P2-P3, Gases and vapours: A-B-E-K-AX), changing them as advised by the manufacturer.		
Filter Type needed:	A2		
Hand protection:			
PPE:	Protective gloves against chemicals.		
Characteristics:	«CE» marking, category III.		
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420		
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.		
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.		
Material:	PVC (polyvinyl chloride)	Breakthrough time (min.):	> 480
		Material thickness (mm):	0,35
Eye protection:			
PPE:	Protective goggles with built-in frame.		
Characteristics:	«CE» marking, category II. Eye protector with built-in frame for protection against dust, smoke, fog and vapour.		
CEN standards:	EN 165, EN 166, EN 167, EN 168		
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.		
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.		
Skin protection:			
PPE:	Anti-static protective clothing.		
Characteristics:	«CE» marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user's movements.		
CEN standards:	EN 340, EN 1149-1, EN 1149-2, EN 1149-3, EN 1149-5		
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.		
Observations:	The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and the expected time of use.		
PPE:	Anti-static safety footwear.		
Characteristics:	«CE» marking, category II.		
CEN standards:	EN ISO 13287, EN ISO 20344, EN ISO 20346		
Maintenance:	The footwear should be checked regularly		
Observations:	The level of comfort during use and acceptability are factors that are assessed very differently depending on the user. Therefore, it is advisable to try on different footwear models and, if possible, different widths.		

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Physical state: Liquid

Colour: brown

Odour: characteristic

Odour threshold: Not applicable/Not available due to the nature/properties of the product

Melting point: not determined °C

Freezing point: Not applicable/Not available due to the nature/properties of the product

Boiling point or initial boiling point and boiling range: -- °C

Flammability: non flammable

Lower explosion limit: not determined

Upper explosion limit: Not applicable/Not available due to the nature/properties of the product

Flash point: 506 °C

Auto-ignition temperature: Not applicable/Not available due to the nature/properties of the product

Decomposition temperature: Not applicable/Not available due to the nature/properties of the product

pH: n.a.

Kinematic viscosity: not determined

Solubility: organic solvents

Hydrosolubility: not determined

Liposolubility: probably soluble

Partition coefficient n-octanol/water (log value): not determined

Vapour pressure: not determined

Absolute density: Not applicable/Not available due to the nature/properties of the product

Relative density: 1.15

Relative vapour density: not determined

Particle characteristics: Not applicable/Not available due to the nature/properties of the product

9.2 Other information

Information with regard to physical hazard classes

Explosives:

Explosive properties: not determined

Oxidising liquids:

Oxidizing properties: not determined

Other safety characteristics

Viscosity: 50-100 mPa.s at 20°C

Dropping point: no aplicable

Blink: no determinado

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

Stable under the recommended handling and storage conditions (see section 7).

10.3 Possibility of hazardous reactions.

The product does not present possibility of hazardous reactions.

10.4 Conditions to avoid.

Avoid any improper handling.

10.5 Incompatible materials.

Keep away from oxidising agents and from highly alkaline or acidic materials in order to prevent exothermic reactions.

10.6 Hazardous decomposition products.

No decomposition if used for the intended uses.

SECTION 11: TOXICOLOGICAL INFORMATION.

IRRITANT MIXTURE. Splashes in the eyes can cause irritation.

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IRRITANT MIXTURE. Its repeated or prolonged contact with the skin or mucous membranes can cause irritant symptoms such as reddening of the skin, blisters, or dermatitis. Some of the symptoms may not be immediate. They can cause allergic reactions on the skin.

IRRITANT MIXTURE. The inhalation of spray mist or suspended particulates can irritate the respiratory tract. It can also cause serious respiratory difficulties, central nervous system disorders, and in extreme cases, unconsciousness.

11.1 Information on hazard classes as defined in Regulation (EC) N° 1272/2008.

Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

Exposure to concentrations of solvent fumes above the work exposure limit can have negative effects (for example, irritation of the mucous membranes and respiratory system, adverse effects on the kidneys, liver, and the central nervous system). Among the symptoms are headaches, vertigo, fatigue, muscular weakness, drowsiness, and in extreme cases, unconsciousness.

Based on the properties of isocyanates and taking into account existing technical data on similar products, it appears that this product may cause irritation and / or acute awareness of the respiratory system, leading to an asthmatic condition, a wheezing and chest pressure. Therefore, sensitized individuals may show asthmatic symptoms when exposed to atmospheres containing concentrations below the level of exposure. Repeated exposure can lead to chronic respiratory diseases.

Toxicological information about the substances present in the composition.

Name	Acute toxicity			
	Type	Test	Kind	Value
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate	Oral	LD50	Rat	> 2000 mg/kg bw [1]
		[1] Study report, 1990. 84/449/EEC (Gazette of the European Community, No. L 251, of 19 Sept, 1984, page 96)		
CAS No: 101-68-8 EC No: 202-966-0	Dermal	LD50	Rabbit	> 9400 mg/kg bw [1]
		[1] Study report, 1964. OECD Guideline 402 (Acute Dermal Toxicity)		
	Inhalation	LC50	Rat	367.95 mg/m ³ air (4 h) [1]
		[1] Study report, 2008. OECD Guideline 403 (Acute Inhalation Toxicity)		

a) acute toxicity;

Not conclusive data for classification.

Acute Toxicity Estimate (ATE):

Mixtures:

ATE (Dermal) = 36.462 mg/kg

ATE (Oral) = 7.758 mg/kg

b) skin corrosion/irritation;

Product classified:

Skin irritant, Category 2: Causes skin irritation.

c) serious eye damage/irritation;

Product classified:

Eye irritation, Category 2: Causes serious eye irritation.

d) respiratory or skin sensitisation;

Product classified:

Respiratory sensitiser, Category 1: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitiser, Category 1: May cause an allergic skin reaction.

e) germ cell mutagenicity;

Not conclusive data for classification.

f) carcinogenicity;

Product classified:

Carcinogen, Category 2: Suspected of causing cancer.

g) reproductive toxicity;

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

h) STOT-single exposure;

Product classified:

Specific target organ toxicity following a single exposure, Category 3: May cause respiratory irritation.

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i) STOT-repeated exposure;

Product classified:

Specific target organ toxicity following a repeated exposure, Category 2: May cause damage to organs through prolonged or repeated exposure if inhaled.

j) aspiration hazard;

Not conclusive data for classification.

11.2 Information on other hazards.

Endocrine disrupting properties

This product does not contain components with endocrine-disrupting properties with effects on human health.

Other information

There is no information available on other adverse health effects.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

Name	Ecotoxicity			
	Type	Test	Kind	Value
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate CAS No: 101-68-8 EC No: 202-966-0	Fish	LC50	Danio rerio	> 1000 mg/L (96 h) [1] [1] Study report, 1986. OECD Guideline 203 (Fish, Acute Toxicity Test)
	Aquatic invertebrates	EC50	Daphnia magna	129.7 mg/L (24 h) [1] [1] Study report, 1986. OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
	Aquatic plants	EC50	Desmodesmus subspicatus	> 1640 mg/L (3 d) [1] [1] Study report, 1994. OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2 Persistence and degradability.

No information is available regarding the biodegradability of the substances present.

No information is available on the degradability of the substances present.

No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potential.

Information about the bioaccumulation of the substances present.

Name	Bioaccumulation			
	Log Pow	BCF	NOECs	Level
propylene carbonate CAS No: 108-32-7 EC No: 203-572-1	-0,41	-	-	Very low

12.4 Mobility in soil.

No information is available about the mobility in soil.

The product must not be allowed to go into sewers or waterways.

Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

12.6 Endocrine disrupting properties.

This product doesn't contain components with environmental endocrine disrupting properties.

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12.7 Other adverse effects.

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

No information is available about other adverse effects for the environment.

SECTION 13: DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

Follow the provisions of Directive 2008/98/EC regarding waste management.

SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

14.1 UN number or ID number.

Transportation is not dangerous.

14.2 UN proper shipping name.

Description:

ADR/RID: Not classified as hazardous for transport.

IMDG: Not classified as hazardous for transport.

ICAO/IATA: Not classified as hazardous for transport.

14.3 Transport hazard class(es).

Transportation is not dangerous.

14.4 Packing group.

Transportation is not dangerous.

14.5 Environmental hazards.

Transportation is not dangerous.

Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): Not applicable.

14.6 Special precautions for user.

Transportation is not dangerous.

14.7 Maritime transport in bulk according to IMO instruments.

Not classified as hazardous for transport.

SECTION 15: REGULATORY INFORMATION.

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

Volatile organic compound (VOC)

Product Subcategory (Directive 2004/42/EC): j - Two-pack reactive performance coatings for specific end use such as floors, solvent-borne

Phase I* (from 01/01/2007): 550 g/l

Phase II* (from 01/01/2010): 500 g/l

(*) g/l ready to use

VOC content (p/p): 29,4 %

VOC content: 360,488 g/l

The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

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(in accordance with Regulation (EU) 2020/878)

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The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles:

Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
3. Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	1. Shall not be used in: - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, - tricks and jokes, - games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: - can be used as fuel in decorative oil lamps for supply to the general public, and, - present an aspiration hazard and are labelled with H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: (a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage'; (b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage'; (c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
74. Diisocyanates, O = C = N- R-N = C = O, where R is an aliphatic or aromatic hydrocarbon structure of unspecified length	1. Shall not be used as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 August 2023, unless: (a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or (b) the employer or self-employed ensures that industrial or professional user(s) have successfully completed training on the safe use of diisocyanates prior to the use of the substance(s) or mixture(s). 2. Shall not be placed on the market as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 February 2022, unless: (a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or (b) the supplier ensures that the recipient of the substance(s) or mixture(s) is provided with information on the requirements referred to in point (b) of paragraph 1 and the following statement is placed on the packaging, in a manner that is visibly distinct from the rest of the label information: 'As from 24 August 2023 adequate training is required before industrial or professional use'. 3. For the purpose of this entry 'industrial and professional user(s)' means any worker or self-employed worker handling diisocyanates on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) or supervising these tasks.

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4. The training referred to in point (b) of paragraph 1 shall include the instructions for the control of dermal and inhalation exposure to diisocyanates at the workplace without prejudice to any national occupational exposure limit value or other appropriate risk management measures at national level. Such training shall be conducted by an expert on occupational safety and health with competence acquired by relevant vocational training. That training shall cover as a minimum:

(a) the training elements in point (a) of paragraph 5 for all industrial and professional use(s).

(b) the training elements in points (a) and (b) of paragraph 5 for the following uses:

- handling open mixtures at ambient temperature (including foam tunnels);
- spraying in a ventilated booth;
- application by roller;
- application by brush;
- application by dipping and pouring;
- mechanical post treatment (e.g. cutting) of not fully cured articles which are not warm anymore;
- cleaning and waste;
- any other uses with similar exposure through the dermal and/or inhalation route;

(c) the training elements in points (a), (b) and (c) of paragraph 5 for the following uses:

- handling incompletely cured articles (e.g. freshly cured, still warm);
- foundry applications;
- maintenance and repair that needs access to equipment;
- open handling of warm or hot formulations (> 45 °C);
- spraying in open air, with limited or only natural ventilation (includes large industry working halls) and spraying with high energy (e.g. foams, elastomers);
- and any other uses with similar exposure through the dermal and/or inhalation route.

5. Training elements:

(a) general training, including on-line training, on:

- chemistry of diisocyanates;
- toxicity hazards (including acute toxicity);
- exposure to diisocyanates;
- occupational exposure limit values;
- how sensitisation can develop;
- odour as indication of hazard;

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	<ul style="list-style-type: none">- importance of volatility for risk;- viscosity, temperature, and molecular weight of diisocyanates;- personal hygiene;- personal protective equipment needed, including practical instructions for its correct use and its limitations;- risk of dermal contact and inhalation exposure;- risk in relation to application process used;- skin and inhalation protection scheme;- ventilation;- cleaning, leakages, maintenance;- discarding empty packaging;- protection of bystanders;- identification of critical handling stages;- specific national code systems (if applicable);- behaviour-based safety;- certification or documented proof that training has been successfully completed <p>(b) intermediate level training, including on-line training, on:</p> <ul style="list-style-type: none">- additional behaviour-based aspects;- maintenance;- management of change;- evaluation of existing safety instructions;- risk in relation to application process used;- certification or documented proof that training has been successfully completed <p>(c) advanced training, including on-line training, on:</p> <ul style="list-style-type: none">- any additional certification needed for the specific uses covered;- spraying outside a spraying booth;- open handling of hot or warm formulations (> 45 °C);- certification or documented proof that training has been successfully completed <p>6. The training shall comply with the provisions set by the Member State in which the industrial or professional user(s) operate. Member States may implement or continue to apply their own national requirements for the use of the substance(s) or mixture(s), as long as the minimum requirements set out in paragraphs 4 and 5 are met.</p> <p>7. The supplier referred to in point (b) of paragraph 2 shall ensure that the</p>
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	<p>recipient is provided with training material and courses pursuant to paragraphs 4 and 5 in the official language(s) of the Member State(s) where the substance(s) or mixture(s) are supplied. The training shall take into consideration the specificity of the products supplied, including composition, packaging, and design.</p> <p>8. The employer or self-employed shall document the successful completion of the training referred to in paragraphs 4 and 5. The training shall be renewed at least every five years.</p> <p>9. Member States shall include in their reports pursuant to Article 117(1) the following information:</p> <p>(a) any established training requirements and other risk management measures related to the industrial and professional uses of diisocyanates foreseen in national law;</p> <p>(b) the number of cases of reported and recognised occupational asthma and occupational respiratory and dermal diseases in relation to diisocyanates;</p> <p>(c) national exposure limits for diisocyanates, if there are any;</p> <p>(d) information about enforcement activities related to this restriction.</p> <p>10. This restriction shall apply without prejudice to other Union legislation on the protection of safety and health of workers at the workplace.</p>
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15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION.

Complete text of the H phrases that appear in section 3:

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.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.

Classification codes:

Acute Tox. 4 : Acute toxicity (Inhalation), Category 4
Carc. 2 : Carcinogen, Category 2
Eye Irrit. 2 : Eye irritation, Category 2
Repr. 2 : Reproductive toxicant, Category 2
Resp. Sens. 1 : Respiratory sensitiser, Category 1
Skin Irrit. 2 : Skin irritant, Category 2
Skin Sens. 1 : Skin sensitiser, Category 1
STOT RE 2 : Specific target organ toxicity following a repeated exposure, Category 2
STOT SE 3 : Specific target organ toxicity following a single exposure, Category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards	On basis of test data
Health hazards	Calculation method
Environmental hazards	Calculation method

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It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:

BCF: Bioconcentration factor.
CEN: European Committee for Standardization.
DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.
DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
EC50: Half maximal effective concentration.
PPE: Personal protection equipment.
LC50: Lethal concentration, 50%.
LD50: Lethal dose, 50%.
NOEC: No observed effect concentration.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>
<http://echa.europa.eu/>
Regulation (EU) 2020/878.
Regulation (EC) No 1907/2006.
Regulation (EC) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemical substances and mixtures (REACH).

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.