# **SAFETY DATA SHEET**

Date of issue/Date of revision

: 14 October 2024

Version : 2.04

pPg

Europe

# SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name	:	AMERSHIELD CURE
Product code	:	00333220
Other means of identific	ation	
Not available.		

1.2 Relevant identified uses	of t	he substance or mixture and uses advised against
Product use	:	Industrial applications, Used by spraying.
Use of the substance/ mixture	:	Coating.
Uses advised against	:	Product is not intended, labelled or packaged for consumer use.

## 1.3 Details of the supplier of the safety data sheet

PPG Coatings Belgium BV/SRL Tweemontstraat 104 B-2100 Deurne Belgium Telephone +32-33606311 Fax +32-33606435

e-mail address of person responsible for this SDS

: Product.Stewardship.EMEA@ppg.com

responsible for this 5D5

## 1.4 Emergency telephone number

## **Supplier**

+31 20 4075210

# **SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture Product definition : Mixture Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

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# **SECTION 2: Hazards identification**

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# 2.2 Label elements

Hazard pictograms



Signal word Hazard statements		Warning Flammable liquid and vapour. May cause an allergic skin reaction. Harmful if inhaled. May cause respiratory irritation. Harmful to aquatic life with long lasting effects.
Precautionary statements		
Prevention	:	Wear protective gloves. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment.
Response	:	IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
Storage	:	Store in a well-ventilated place. Keep container tightly closed.
Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations. P280, P210, P273, P304 + P312, P403 + P233, P501
Supplemental label elements	:	Contains isocyanates. May produce an allergic reaction.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	As from August 24 2023 adequate training is required before industrial or professional use.
Special packaging requirem	nen	<u>ts</u>
Containers to be fitted with child-resistant fastenings	:	Not applicable.
Tactile warning of danger	:	Not applicable.
2.3 Other hazards		
Product meets the criteria for PBT or vPvB	:	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do** : Prolonged or repeated contact may dry skin and cause irritation.

not result in classification

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# **SECTION 3: Composition/information on ingredients**

3.2 Mixtures	: Mixture				
Product/ingredient name	Identifiers	% by weight	Classification	Specific Conc. Limits, M-factors and ATEs	Туре
rexamethylene diisocyanate, oligomers (isocyanurate type)	REACH #: 01-2119485796-17 EC: 500-060-2 CAS: 28182-81-2	≥75 - ≤90	Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3, H335	ATE [Inhalation (dusts and mists)] = 1.5 mg/l	[1] [2]
Hydrocarbons, C9, aromatics > 0.1% cumene	REACH #: 01-2119455851-35 EC: 918-668-5 CAS: 128601-23-0	≥5.0 - <10	Flam. Liq. 3, H226 Carc. 1B, H350 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	Carc. 1B, H350: C ≥ 10% EUH066: C ≥ 20%	[1] [2]
n-butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥1.0 - ≤5.0	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	-	[1] [2]
hexamethylene-di- isocyanate	REACH #: 01-2119457571-37 EC: 212-485-8 CAS: 822-06-0 Index: 615-011-00-1	≤0.30	Acute Tox. 4, H302 Acute Tox. 1, H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 710 mg/ kg ATE [Inhalation (vapours)] = 0.151 mg/ I Resp. Sens. 1, H334: $C \ge 0.5\%$ Skin Sens. 1, H317: $C \ge 0.5\%$	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

<u>Type</u>

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

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# **SECTION 4: First aid measures**

## 4.1 Description of first aid measures

Eye contact	: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
Inhalation	: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
Ingestion	: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

Potential acute health	<u>effects</u>
Eye contact	: No known significant effects or critical hazards.
Inhalation	: Harmful if inhaled. May cause respiratory irritation.
Skin contact	: Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.
<u>Over-exposure signs/s</u>	<u>ymptoms</u>
Eye contact	: No specific data.
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	: No specific data.
4.3 Indication of any imm	nediate medical attention and special treatment needed
Notes to physician	<ul> <li>In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.</li> </ul>
Specific treatments	: No specific treatment.

# **SECTION 5: Firefighting measures**

5.1 Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.

## 5.2 Special hazards arising from the substance or mixture

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SECTION 5: Firefighting measures			

: Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
: Decomposition products may include the following materials: carbon oxides nitrogen oxides Cyanate and isocyanate. hydrogen cyanide
: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

# **SECTION 6: Accidental release measures**

6.1 Personal precautions, pro	tective equipment and emergency procedures
For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
6.3 Methods and material for	containment and cleaning up
Small spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

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SECTION 6: Accide	ental release measures
Special provisions	: Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Place in a suitable container. The contaminated area should be cleaned immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts) and concentrated (d: 0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts) and water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in an unsealed container. Once this stage is reached, close container and dispose of according to local regulations (see section 13). Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.
6.4 Reference to other sections	<ul> <li>See Section 1 for emergency contact information.</li> <li>See Section 8 for information on appropriate personal protective equipment.</li> <li>See Section 13 for additional waste treatment information.</li> </ul>

# **SECTION 7: Handling and storage**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

## 7.1 Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
7.2 Conditions for safe storage, including any incompatibilities	<ul> <li>Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</li> <li>Precautions should be taken to minimise exposure to atmospheric humidity or water. CO<sub>2</sub> will be formed, which, in closed containers, could result in pressurisation.</li> </ul>

## 7.3 Specific end use(s)

See Section 1.2 for Identified uses.

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# **SECTION 8: Exposure controls/personal protection**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

## 8.1 Control parameters

## Occupational exposure limits

Product/ingredient name	Exposure limit values
Hexamethylene diisocyanate, oligomers	IPEL (-)
(isocyanurate type)	TWA: 0.5 mg/m <sup>3</sup> .
	STEL: 1 mg/m <sup>3</sup> .
Hydrocarbons, C9, aromatics > 0.1% cumene	EU OEL (Europe)
	TWA: 19 ppm.
	TWA: 100 mg/m³.
n-butyl acetate	EU OEL (Europe, 1/2022)
	STEL 15 minutes: 150 ppm.
	STEL 15 minutes: 723 mg/m <sup>3</sup> .
	TWA 8 hours: 241 mg/m <sup>3</sup> .
	TWA 8 hours: 50 ppm.
hexamethylene-di-isocyanate	ACGIH TLV (United States, 7/2023)
	TWA 8 hours: 0.005 ppm.
	TWA 8 hours: 0.03 mg/m <sup>3</sup> .
Recommended monitoring : Reference shou	Id be made to monitoring standards, such as the following: European

**Recommended monitoring** : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

## **DNELs**

Product/ingredient name	Туре	Exposure	Value	Population	Effects
Rexamethylene diisocyanate, oligomers (isocyanurate type)	DNEL	Long term Inhalation	0.5 mg/m³	Workers	Local
	DNEL	Short term Inhalation	1 mg/m <sup>3</sup>	Workers	Local
Hydrocarbons, C9, aromatics > 0.1% cumene	DNEL	Long term Inhalation	150 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	25 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	32 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	11 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	11 mg/kg bw/day	General population	Systemic
n-butyl acetate	DNEL	Long term Inhalation	300 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	11 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	3.4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	7 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	11 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	12 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	35.7 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	48 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	300 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	300 mg/m <sup>3</sup>	General population	Systemic
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# **SECTION 8: Exposure controls/personal protection**

	DNEL	Long term Inhalation	300 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	600 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	600 mg/m <sup>3</sup>	Workers	Systemic
hexamethylene-di-isocyanate	DNEL	Long term Inhalation	0.035 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	0.07 mg/m <sup>3</sup>	Workers	Local
			-		

## **PNECs**

Product/ingredient name	Туре	Compartment Detail	Value	Method Detail
Hexamethylene diisocyanate, oligomers (isocyanurate type)	-	Fresh water	0.127 mg/l	Assessment Factors
	-	Marine water	0.0127 mg/l	Assessment Factors
	-	Sewage Treatment Plant	88 mg/l	Assessment Factors
	-	Fresh water sediment	266701 mg/kg dwt	Equilibrium Partitioning
	-	Marine water sediment	26670 mg/kg dwt	Equilibrium Partitioning
	-	Soil	53182 mg/kg	Equilibrium Partitioning
n-butyl acetate	-	Fresh water	0.18 mg/l	-
	-	Marine water	0.018 mg/l	-
	-	Fresh water sediment	0.981 mg/kg	-
	-	Marine water sediment	0.0981 mg/kg	-
	-	Sewage Treatment Plant	35.6 mg/l	-
	-	Soil	0.0903 mg/kg	-
hexamethylene-di-isocyanate	-	Fresh water	0.0774 mg/l	Assessment Factors
	-	Marine water	0.00774 mg/l	Assessment Factors
	-	Sewage Treatment Plant	8.42 mg/l	Assessment Factors
	-	Fresh water sediment	0.01334 mg/kg dwt	Equilibrium Partitioning
	-	Marine water sediment	0.001334 mg/kg	Equilibrium Partitioning
			dwt	-
	-	Soil	0.0026 mg/kg dwt	Equilibrium Partitioning

8.2 Exposure controls		
Appropriate engineering controls	: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.	V
Individual protection measu	<u>ires</u>	
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.	
Eye/face protection	: Safety glasses with side shields. Use eye protection according to EN 166.	
Skin protection		
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher	(
English (GB)	Europe 8/17	

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	(breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Gloves	utyl rubber	
Body protection	Personal protective equipment for the body should be selected based on the task eing performed and the risks involved and should be approved by a specialist be andling this product. When there is a risk of ignition from static electricity, wear a tatic protective clothing. For the greatest protection from static discharges, clothi hould include anti-static overalls, boots and gloves. Refer to European Standard 149 for further information on material and design requirements and test method	anti- ng EN
Other skin protection	Appropriate footwear and any additional skin protection measures should be select ased on the task being performed and the risks involved and should be approved specialist before handling this product.	
Respiratory protection	Use an air-fed respirator unless a site-specific assessment determines that an air- espirator is not necessary, in which case the results of the risk assessment shoul tilized to determine whether respiratory protection is necessary and what type of rotection is appropriate. Respirator selection must be based on known or anticip exposure levels, the hazards of the product and the safe working limits of the sele espirator. If workers are exposed to concentrations above the exposure limit, the nust use appropriate, certified respirators. Use a properly fitted, air-purifying or air espirator complying with an approved standard if a risk assessment indicates this eccessary. Wear a respirator conforming to EN140. Filter type: organic vapour ( a) and particulate filter P3	d be ated cted y ir-fed
Restrictions on use	Persons with a history of asthma, allergies or chronic or recurrent respiratory disea hould not be employed in any process in which this product is used.	ase
Environmental exposure controls	imissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some ases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.	е

# **SECTION 9: Physical and chemical properties**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

## 9.1 Information on basic physical and chemical properties

English (GB)		Europe		9/17
Decomposition temperature	: Stable under recommende	d storage and	handling con	ditions (see Section 7).
	n-butyl acetate	415	779	EU A.15
	Ingredient name	°C	°F	Method
Auto-ignition temperature	:			
Flash point	: Closed cup: 50°C			
Flammability Lower and upper explosion limit	<ul><li>Not determined. There are</li><li>Not available.</li></ul>	no data availa	ble on the mi	xture itself.
Boiling point or initial boiling point and boiling range	: >37.78°C			
Melting point/freezing point	: Not determined.			
Odour	: Characteristic.			
Colour	: Not available.			
Physical state	: Liquid.			
<u>Appearance</u>				

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SECTION 9: Physical a	nd	chemical properties
рН	:	Not applicable. insoluble in water.
Viscosity	:	
Solubility	:	
Media		Result
cold water		Not soluble
Solubility in water	:	0 g/l
Partition coefficient n-octanol/ water (log Pow)	:	Not applicable.
Vapour pressure	:	1.2 kPa (9.3 mm Hg)
Relative density	:	1.12
Particle characteristics		
Median particle size	:	Not applicable.
9.2 Other information		
9.2.1 Information with regard t	o ph	iysical hazard classes
Explosive properties	:	The product itself is not explosive, but the formation of an explosible mixture of vapour or dust with air is possible.
Oxidising properties	1	Product does not present an oxidizing hazard.
9.2.2 Other safety characterist	ics	
Evaporation rate	1	0.63 (butyl acetate = 1)
No additional information.		

# SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: The product is stable.
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: In a fire, hazardous decomposition products may be produced. Refer to protective measures listed in sections 7 and 8.
10.5 Incompatible materials	: Keep away from: oxidising agents, strong alkalis, strong acids, amines, alcohols, water. Uncontrolled exothermic reactions occur with amines and alcohols.
10.6 Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: Cyanate and isocyanate. carbon oxides nitrogen oxides hydrogen cyanide

# **SECTION 11: Toxicological information**

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly.

# Harmful if inhaled.

May cause an allergic skin reaction. May cause respiratory irritation.

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# **SECTION 11: Toxicological information**

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Hexamethylene diisocyanate, oligomers (isocyanurate type)	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat - Female	>2500 mg/kg	-
Hydrocarbons, C9, aromatics > 0.1% cumene	LD50 Dermal	Rabbit	>3160 mg/kg	-
	LD50 Oral	Rat - Female	3492 mg/kg	-
n-butyl acetate	LC50 Inhalation Vapour LC50 Inhalation Vapour LD50 Dermal LD50 Oral	Rat Rat Rabbit Rat	>21.1 mg/l 2000 ppm >17600 mg/kg 10.768 g/kg	4 hours 4 hours - -
hexamethylene-di-isocyanate	LC50 Inhalation Dusts and mists LC50 Inhalation Vapour LD50 Dermal LD50 Oral	Rat Rat Rabbit Rat	124 mg/m <sup>3</sup> 151 mg/m <sup>3</sup> 0.57 g/kg 0.71 g/kg	4 hours 4 hours - -

## Acute toxicity estimates

Route	ATE value
halation (vapours)	111.85 mg/l
Inhalation (dusts and mists)	1.67 mg/l

**Conclusion/Summary** : Marmful if inhaled.

Irritation/Corrosion

**Conclusion/Summary** 

: **B**ased on available data, the classification criteria are not met.

Eyes Respiratory : **B**ased on available data, the classification criteria are not met.

: **B**ased on available data, the classification criteria are not met.

## Respiratory or skin sensitization

## Conclusion/Summary

Skin

Skin

Respiratory

:  $\mathbf{M}$ ay cause an allergic skin reaction.

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

## **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.

#### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Hexamethylene diisocyanate, oligomers (isocyanurate type)	Category 3	-	Respiratory tract irritation
Hydrocarbons, C9, aromatics > 0.1% cumene	Category 3 Category 3	-	Respiratory tract irritation Narcotic effects
n-butyl acetate	Category 3	-	Narcotic effects
hexamethylene-di-isocyanate	Category 3	-	Respiratory tract irritation

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Conclusion/Summary	ł
May cause respiratory irritation.	

Specific target organ toxicity (repeated exposure)

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

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**Aspiration hazard** 

Product/ingredient name	Result
Hydrocarbons, C9, aromatics > 0.1% cumene	ASPIRATION HAZARD - Category 1

## **Conclusion/Summary**

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

Information on likely routes of exposure	: Not available.
Potential acute health effect	t <mark>s</mark>
Inhalation	: Harmful if inhaled. May cause respiratory irritation.
Ingestion	: No known significant effects or critical hazards.
Skin contact	: Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
Eye contact	: No known significant effects or critical hazards.
Symptoms related to the ph	ysical, chemical and toxicological characteristics
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Ingestion	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Eye contact	: No specific data.
Delayed and immediate effe	cts as well as chronic effects from short and long-term exposure
Short term exposure	
Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects Long term exposure	: No known significant effects or critical hazards.
Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	: No known significant effects or critical hazards.
Potential chronic health effe	ects
General	: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.
Other information	1 · · · · · · · · · · · · · · · · · · ·

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**SECTION 11: Toxicological information** 

Prolonged or repeated contact may dry skin and cause irritation. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitisation of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Sensitised persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Persons with a history of skin sensitisation problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Repeated exposure may lead to permanent respiratory disability. Moisture-sensitive material. Avoid contact with skin and clothing.

#### 11.2 Information on other hazards

## **11.2.1 Endocrine disrupting properties**

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

11.2.2 Other information

Not available.

# **SECTION 12: Ecological information**

There are no data available on the mixture itself. Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

#### **12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
Rexamethylene diisocyanate, oligomers (isocyanurate type)	Acute EC50 >1000 mg/l	Algae - scenedesmus subspicatus	72 hours
	Acute EC50 >100 mg/l	Daphnia - <i>daphnia</i> <i>magna</i>	48 hours
	Acute LC50 >100 mg/l	Fish - Danio rerio (zebra fish)	96 hours
Hydrocarbons, C9, aromatics > 0.1% cumene	EC50 3.2 mg/l LC50 9.2 mg/l	Daphnia Fish	48 hours 96 hours
n-butyl acetate	Acute LC50 18 mg/l	Fish	96 hours

**Conclusion/Summary** : Harmful to aquatic life with long lasting effects.

#### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	e Inoculum
Hydrocarbons, C9, aromatics > 0.1% cumene n-butyl acetate	- TEPA and OECD 301D	75 % - Readily - 28 da 83 % - Readily - 28 da	-	-
Product/ingredient name		Aquatic half-life	Photolysis	Biodegradability
✓examethylene diisocyanate, oligomers (isocyanurate type) Hydrocarbons, C9, aromatics > 0.1% cumene n-butyl acetate		-	-	Not readily Readily Readily

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# **SECTION 12: Ecological information**

## 12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Rexamethylene diisocyanate, oligomers (isocyanurate type)	5.54	3.2	Low
n-butyl acetate hexamethylene-di-isocyanate	2.3 0.02	-	Low Low

### 12.4 Mobility in soil

Soil/water partition	: Not available.
coefficient (Koc)	
Mobility	: Not available.

## 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

#### 12.6 Endocrine disrupting properties

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

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### 12.7 Other adverse effects

No known significant effects or critical hazards.

# **SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### **13.1 Waste treatment methods**

Product	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non- recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste

### European waste catalogue (EWC)

Waste code	Waste designation			
08 01 99	wastes not otherwise specified			
Packaging				
Methods of disposal	al : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.			
Type of packaging	European waste catalogue (EWC)			
Container	15 01 06 mixed packaging			

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# **SECTION 13: Disposal considerations**

Special precautions
 This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

	ADR/RID	ADN	IMDG	ΙΑΤΑ
14.1 UN number or ID number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	III	Ш	III	III
14.5 Environmental hazards	No.	Yes.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.	Not applicable.

## Additional information

ADR/RID: None identified.Tunnel code: (D/E)ADN: The product is only regulated as an environmentally hazardous substance when transported in tank<br/>vessels.IMDG: None identified.IATA: None identified.

**14.6 Special precautions for user Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in	: Not applicable.
bulk according to IMO	
instruments	

# **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture <u>EU Regulation (EC) No. 1907/2006 (REACH)</u>

Annex XIV - List of substances subject to authorisation

<u>Annex XIV</u>

None of the components are listed.

Substances of very high concern

None of the components are listed.

English (GB)

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# **SECTION 15: Regulatory information**

Product/ingredient name	Entry Number ( REACH )
MERSHIELD CURE hexamethylene-di-isocyanate	3 74
Labelling         : As from August 24 2023 adequate trai           professional use.         professional use.	ning is required before industrial or
Explosive precursors : Not applicable. Ozone depleting substances (1005/2009/EU)	
Not listed.	
Seveso Directive This product is controlled under the Seveso Directive. Danger criteria	
Category	

# **SECTION 16: Other information**

Indicates information that has changed from previously issued version.

## Abbreviations and acronyms

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- PBT = Persistent, Bioaccumulative and Toxic
- vPvB = Very Persistent and Very Bioaccumulative
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
- IMDG = International Maritime Dangerous Goods
- IATA = International Air Transport Association

## Full text of abbreviated H statements

H411	Toxic to aquatic life with long lasting effects.
H350	May cause cancer.
H336	May cause drowsiness or dizziness.
H335	May cause respiratory irritation.
	inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if
H332	Harmful if inhaled.
H330	Fatal if inhaled.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H315	Causes skin irritation.
H304	May be fatal if swallowed and enters airways.
H302	Harmful if swallowed.
-	Flammable liquid and vapour.
H226	Flammable liquid and vancur

English (GB)	Europe
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H412 EUH066	Harmful to aquatic life with long lasting effects. Repeated exposure may cause skin dryness or cracking.

# Full text of classifications [CLP/GHS]

Full text of classifications [CLP/GHS]	
Acute Tox. 1	ACUTE TOXICITY - Category 1
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Carc. 1B	CARCINOGENICITY - Category 1B
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Resp. Sens. 1	RESPIRATORY SENSITISATION - Category 1
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE -
	Category 3

#### **History**

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Prepared by	: EHS
Version	: 2.04

#### **Disclaimer**

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