

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

SECTION 1: Identification of the substance or mixture and of the company/undertaking				
1.1	Product identification Product form: Mixture Product code: 1540 PU ADHESIVE, Component B Product group: Flooring			
1.2	Relevant identified use Main usage category Industrial/Professional usage specification Use of the substance or the mixture; Forms of use that are advised against	Industrial use Flooring Spray applications for consumers., Consumer products requiring a temperature of more than 40°C.		
1.3	Dutch Resin Group Gladsaxe 19 7327 JZ Apeldoorn T +31 (0)55 312 44 65 info@dutchresin.nl	Visiting address Gladsaxe 19 Apeldoorn		
1.4	Emergency number: T +31 (0)55 312 44 65 This number is only available during office hours.			
	Land	Official advisory body	Emergency number	address
	THE NETHERLANDS	National Poisons Information Center. University Medical Center Utrecht, The National Poisons Information Center (NVIC) informs doctors, veterinarians, pharmacists, and other healthcare professionals about the possible health effects and treatment options for poisonings. The NVIC is available for this purpose day and night, both by telephone and via the internet.	P.O. Box 85500 3508 GA Utrecht	+31 30 274 88 88
SECTION 2: Identification of hazards				
2.1	Classification of the substance or mixture			
	Classification of the substance or mixture according to Regulation (EC) No 1272/2008 [CLP]: Acute toxicity, Inhalation, Category 4 (H332) Skin irritation, Category 2 (H315) Eye irritation, Category 2 (H319) Respiratory tract sensitization, Category 1 (H334) Skin sensitization, Category 1 (H317) Carcinogenicity, Category 2 (H351) Specific target organ toxicity (single exposure), Category 3 (H335 (Respiratory system)) Specific target organ toxicity (repeated exposure), Category 2 (H373)			
2.2	Labeling elements			


1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

	<p>Symbol </p> <p>Signal word (CLP): Danger</p> <p>Hazardous ingredients that must be listed on the label.</p> <ul style="list-style-type: none"> - Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate - Isocyanic acid, polymethylenepolyphenylene ester - 4,4'-methylenediphenyl diisocyanate <p>Hazard statements:</p> <p>H315 Causes skin irritation.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H319 Causes serious eye irritation.</p> <p>H332 Harmful if inhaled.</p> <p>H334 May cause allergy or asthma symptoms or difficulty breathing if inhaled.</p> <p>H335 May cause respiratory irritation.</p> <p>H351 Suspected of causing cancer.</p> <p>H373 May cause damage to organs through prolonged or repeated exposure.</p> <p>Precautions: P201 Consult the special directions before use.</p> <p>P260 Do not inhale mist or vapor.</p> <p>P264 Wash the skin thoroughly after working with this product.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.</p> <p>P304 + P340 + P312 AFTER INHALATION: Move the person to fresh air and ensure they can breathe easily. If feeling unwell, consult a POISON CENTER/doctor.</p> <p>P308 + P313 AFTER (possible) exposure: consult a doctor.</p> <p>Additional risk characteristics and labelling elements:</p> <p>EUH204 Contains isocyanates. May cause an allergic reaction.</p> <p>In persons who are already sensitized to diisocyanates, the use of this may Allergic reactions may occur with this product. Persons suffering from asthma, eczema, or skin problems must avoid contact with this product, including skin contact.</p> <p>Do not use this product in poor ventilation, unless a protective mask with a suitable gas filter (type A2 in accordance with standard EN 14387) is worn.</p> <p>As of August 24, 2023, a suitable have completed training</p>
2.3	Other dangers
	<p>Handling of the product is advised against in case of hypersensitivity of the respiratory tract (asthma, chronic bronchitis).</p> <p>Respiratory symptoms may also occur several hours after prolonged exposure. Dust, fumes, and aerosols pose the greatest danger to the respiratory tract.</p>

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

This substance/mixture does not contain components that can be considered persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition and information on ingredients

3.2	Mixture of hazardous and non-hazardous substances			
	Chemical name	CAS No. EC No. Index no. Registration number	Layout	Concent ratio (% w/w)
	Reaction mass of 4,4 'methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate	- - 01-2119457015-45	Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 Carc. 2; H351 STOT SE 3; H335 (Respiratory system) STOT RE 2; H373 (Respiratory tract)	>= 30 - < 50
	Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9 Polymer	Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 Carc. 2; H351 STOT SE 3; H335 (Respiratory system) STOT RE 2; H373	>= 30 - < 50

1540 PU ADHESIVE, Component B

Safety Data Sheet

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

	4,4'-methylene diphenyl diisocyanate	101-68-8 202-966-0 615-005-00-9 01-2119457014-47	Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 Carc. 2; H351 STOT SE 3; H335 (Respiratory system) STOT RE 2; H373 (Respiratory system) specific concentration limits Eye Irrit. 2; H319 >= 5 % STOT SE 3; H335 >= 5% Skin Irrit. 2; H315 >= 5% Resp. Sens. 1; H334 >= 0.1 %	>= 20 - < 30
	For an explanation of the abbreviations, see section 16.			
4.1	Description of the first aid measures			
	<p>General advice: Immediately remove, disinfect, and dispose of soiled or soaked clothing and shoes.</p> <p>In case of inhalation: Move person to fresh air, keep warm, allow to rest; medical assistance is required if breathing difficulties occur.</p> <p>In case of contact with skin: In case of contact with skin, preferably wash with a cleanser based on polyethylene glycol or clean with plenty of warm water and soap. In case of skin reactions, consult a doctor.</p> <p>In case of contact with eyes: Rinse open eyes with lukewarm water for a sufficient length of time (at least 10 minutes), if possible. Consult an ophthalmologist.</p> <p>If swallowed: DO NOT induce vomiting. Rinse mouth with water. Medical advice required.</p>			
4.2	Main acute and delayed symptoms and effects			
	Notes for the physician: The product irritates the respiratory tract and can cause hypersensitivity of the skin and respiratory tract. Treatment of acute irritation or bronchoconstriction is primarily symptomatic. Depending on the degree of exposure and symptoms, prolonged medical care may be necessary.			
4.3	Indication of the required immediate medical care and special treatment			
	No data available			
SECTION 5: Firefighting measures				
5.1	Extinguishing equipment			
	Suitable extinguishing agents: Foam. Anti-fouling spray. Water mist. Unsuitable extinguishing agents: Strong water jet.			

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

5.2	Special hazards caused by the substance or mixture
	During a fire, carbon monoxide, carbon dioxide, nitrogen oxide, isocyanate vapors, and traces of hydrogen cyanide (prussic acid) are produced. Avoid inhaling smoke during fire and/or explosion. At extreme heat (> 500 degrees C), it is suspected that aniline is formed.
5.3	Advice for firefighters
	<p>Fire precautions: No open flames, no sparks, and no smoking.</p> <p>Firefighting instructions: Do not enter the fire zone without suitable safety equipment, including respiratory protection.</p> <p>Protection during firefighting: Cool the exposed vessels with a water spray or mist.</p> <p>Additional information: Exercise extreme caution when fighting a chemical fire. Collect the contaminated extinguishing water used for the fire separately. Do not discharge into the sewer. Move the undamaged containers out of the danger zone, if this can be done safely.</p>
SECTION 6: Measures in the event of accidental release of the substance or mixture	
6.1	Personal precautions, protective equipment and emergency procedures
	Wear personal protective equipment. Wear respiratory equipment when exposed to vapors/dust/aerosols. Ensure good ventilation. Use suitable respiratory protective equipment. Consult the protective measures as set out in points 7 and 8.
6.2	For persons other than the emergency services
	<p>Protective equipment: Equip cleaning staff with appropriate protection.</p> <p>Emergency procedures: Keep spectators at a distance.</p>
6.3	For the emergency services
	No additional information available
6.4	Environmental precautions
	<p>Prevent penetration into the soil/subsoil. Prevent runoff into surface water or the sewer. Store the contaminated rinse water and dispose of it. In the event of a gas leak or infiltration into watercourses, soil, or sewers, notify the responsible authorities. Suitable material for collection: absorbent material, organic matter, sand.</p>
6.5	Methods and material for containment and cleaning up
	<p>Cleaning methods - minor spills Contain spills, absorb with non-combustible absorbent material (e.g. sand, soil, diatomaceous earth, vermiculite), and transfer to a container for processing in accordance with local/national regulations (see section 13).</p> <p>Thoroughly clean the contaminated surface.</p> <p>Sweep up or vacuum up spilled material, collect in a suitable container, and dispose of it.</p> <p>Neutralize small amounts of spilled substance with a disinfectant.</p> <p>See section 16 for the composition of the agents for the detoxification of MDI.</p> <p>Remove the remainder and dispose of it as waste.</p> <p>Vacuum the contaminated area and completely remove all dust.</p> <p>If the product is in liquid form: Embed in inert absorbent material (e.g. sand, gravel grit, acid binding agent, universal binding agent, sawdust).</p> <p>Allow to react for at least 30 minutes.</p> <p>Scoop into lidded containers and render harmless.</p> <p>Rinse the contaminated area with water.</p>
6.6	Reference to other sections

1540 PU ADHESIVE, Component B

Safety Data Sheet

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

		Regarding waste disposal after cleaning, see section 13. See section 8 regarding the use of personal protective equipment.			
SECTION 7: Handling and storage					
	7.1	Precautions for the safe handling of the substance or mixture			
		<p>Ensure eyewash facilities and safety showers are available near the workplace. Use only with adequate ventilation. For personal protection, see paragraph 8. Avoid aerosol formation. Do not inhale vapors or spray mist. Do not inhale vapors/dust. Do not swallow.</p> <p>Keep out of contact with eyes, mouth, or skin. Do not let come into contact with skin or clothing. Avoid exposure – consult special instructions before use. No smoking, eating, or drinking at the workplace. Ensure adequate ventilation and/or extraction in the workplace. Keep container closed when not in use. Open container carefully as contents may be under pressure.</p> <p>Dispose of flush water in accordance with local and national regulations. People who are prone to skin sensitization problems or have asthma, allergies, or chronic or recurring respiratory conditions must not work in processes where this mixture is used.</p> <p>Industrial use of aprotic polar solvents for cleaning can release hazardous primary aromatic amines (>0.1)</p> <p>Use in accordance with standard rules and practices regarding industrial hygiene and safety. Thoroughly wash face, hands, and exposed skin after working with this product. Remove contaminated clothing and protective equipment before going to the canteen. Do not eat, drink, or smoke during use.</p> <p>Contaminated work clothing must not leave the workplace. Wash hands before every work break and immediately after using the product. Wash hands before every work break and at the end of the workday.</p>			
	7.2	Conditions for safe storage, including incompatible products			
		<p>Keep away from food, drink, and feed. Incompatible substances: None in particular. See also paragraph 10 below. Instructions for the rooms. Well-ventilated rooms.</p>			
	7.3	Specific end-use			
		B Component: coating/cast floor			
SECTION 8: Exposure control measures/personal protection					
	8.1	Control parameters			
		Ingredients	CAS No.	Type of value (Mode of exposure)	Basic Control Parameters
		4,4'-methylenediphenyl dioxide isocyanate	101-68-8	TGG-8 hours	1 mg/m ³ (Cyanide)
		Further information Skin absorption			

1540 PU ADHESIVE, Component B

Safety Data Sheet

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

		TGG-8 hours	10 mg/m ³ (Cyanide)	NL WG
Further information Skin absorption				
Derivative doses without effect (DNEL) in accordance with Regulation (EC) No 1907/2006:				
Substance name	End use	Exposure route Possible	Health conditions	Value
4,4'-methylenediphenyl diisocyanate	Employee	Inhalation	Long-term local effects	0.05 mg/m ³
	Employee	Inhalation	Acute - local effects	0.1 mg/m ³
	Consumer	Inhalation	Long-term local effects	0.025 mg/m ³
	Consumer	Inhalation	Acute - local effects	0.05 mg/m ³
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(isocyanatobenzyl) phenyl isocyanate	Employee	Inhalation	Long-term local effects	0.05 mg/m ³
	Employee	Inhalation	Acute - local effects	0.1 mg/m ³
	Consumer	Inhalation	Long term	0.025 mg/m ³
			local effects	
	Consumer	Inhalation	Acute - local effects	0.05 mg/m ³
Predicted no-effect concentration (PNEC) in accordance with Regulation (EC) Number 1907/2006:				
Substance name	Environmental compartment	Value		
4,4'-methylene diphenyl diisocyanate	Freshwater	3.7 µg/l		
Comments:	Assessment factors			
	Freshwater - intermittent	37 µg/l		
	Assessment factors			

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

		Seawater	0.37 µg/l	
		Assessment factors		
		Freshwater deposit	11.7 mg/kg dry weight (dg)	
		Equilibrium method		
		Marine deposit	1.17 mg/kg dry weight (dg)	
		Equilibrium method		
		Soil	2.33 mg/kg dry weight (dg)	
		Equilibrium method		
		Reaction mass of 4,4 'methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate	Freshwater	1 mg/l
			Seawater	0.1 mg/l
			Intermittent use/ intermittent emission	10 mg/l
			Wastewater treatment plant 1 mg/l	
			Soil	1 mg/kg dry weight (dg)
8.2	Measures to control exposure			
	<p>When a risk analysis indicates that this is necessary to avoid exposure to splashes, mist, or dust, eye protection that meets an approved standard must be worn.</p> <p>Safety glasses. Always wear eye protection if the risk of unintentional eye contact with the product cannot be ruled out. Follow all applicable local/national regulations when selecting protective measures for a specific workplace.</p> <p>Ensure eyewash facilities and safety showers are available near the workplace.</p> <p>Hand protection Remarks Wear protective gloves in case of risk of skin contact with freshly foamed polyurethane, as material that has not yet fully reacted can be hazardous upon contact with the skin. Use chemical-resistant gloves in accordance with standard EN374: gloves for protection against chemicals and microorganisms. Gloves made of, for example, the following materials could provide sufficient protection: butyl rubber, chlorinated polyethylene, polyethylene, ethylene vinyl alcohol copolymer ("EVAL"), polychloroprene (neoprene), nitrile butadiene rubber ("NBR" or "nitrile"), polyvinyl chloride ("PVC" or "vinyl"), fluoroelastomer (Viton).</p>			

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

		<p>For prolonged or repeated contact, wearing gloves with protection class 5 or higher (breakthrough time more than 240 minutes according to EN374) is recommended.</p> <p>For only brief contact, wearing gloves with protection class 3 or higher (breakthrough time more than 60 minutes according to EN374) is recommended.</p> <p>Please note: When selecting specific gloves for a particular application and time of use at the workplace, all other work requirements must also be taken into account, such as, but not limited to, other chemicals handled, physical requirements (protection against cutting/puncturing, dexterity, thermal protection), and the instructions/regulations of the glove supplier.</p> <p>The selected safety gloves must comply with the specifications of Regulation (EU) 2016/425 and the derived standard EN 374. Due to industrial use of aprotic polar solvents for cleaning: Butyl rubber (0.7 mm), nitrile rubber (0.4 mm), chloroprene (0.5 mm)</p> <p>Skin and body protection : Impermeable clothing. Select protective clothing based on the quantity and concentration of the hazardous substance at the workplace. Recommended: Coveralls (preferably thick cotton) or Tyvek-Pro Tech 'C', TyvekPro Tech 'F' single-use full protective clothing.</p>
SECTION 9: Physical and chemical properties		
	9.1	Information about basic physical and chemical properties
		<p>Appearance: liquid Color: brown Scent: characteristic Odor threshold: not determined pH: not determined Pouring point: not determined Boiling point/boiling range: not applicable, decomposition DIN 53171 Flash point: approx. 185 °C DIN EN 22719 Evaporation rate: not determined Flammability (solid, gas): Not applicable Fire number: Not applicable Vapor pressure: not determined Vapor pressure of constituents: Vapor density: not determined Density: not determined Miscibility with water: immiscible at 15 °C Surface tension: not established Partition coefficient (n-octanol/water): not established Autoignition temperature: Not applicable Ignition temperature: approx. 445 °C DIN 51794 Decomposition temperature: approx. 181 °C Viscosity, dynamic: not established Explosive properties: not established Dust explosion class: Not applicable Oxidizing properties: not established</p>
	9.2	Other information

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

		no.
SECTION 10: Stability and reactivity		
10.1	Reactivity	
		Reacts with water, alcohols, amines.
10.2	Chemical stability:	
		Stable under recommended storage conditions.
10.3	Possible dangerous reactions	
		Exothermic reaction with amines and alcohols; gradual CO ₂ evolution with water, pressure increase in sealed containers; risk of bursting.
10.4	Conditions to be avoided	
		Extremely high or low temperatures. Protect from direct sunlight.
10.5	Chemically interacting materials	
		Water, alcohols, amines.
10.6	Dangerous decomposition products	smoke.
		No hazardous decomposition products with professional storage and handling.
SECTION 11: Toxicological information		
11.1	Information about toxicological effects	
		<p>1 Information on hazard classes as defined in Regulation (EC) No 1272/2008</p> <p>Acute toxicity</p> <p>Ingredients:</p> <p>Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate:</p> <p>Acute oral toxicity : LD₅₀ (Rat, male and female): > 2,000 mg/kg Assessment: The substance or mixture shows no acute oral toxicity</p> <p>Isocyanic acid, polymethylenepolyphenylene ester:</p> <p>Acute oral toxicity : LD₅₀ (Rat, male): > 10,000 mg/kg Method: OECD 401 Guideline Test</p> <p>Acute toxicity by inhalation :</p> <p>Assessment: The substance/mixture is not toxic by inhalation, as defined in the regulations for dangerous goods.</p> <p>Remarks: The procedures applied in animal tests to determine exposure concentrations use extreme and unrealistic test conditions and, due to the very low vapor pressure of the material, are not representative of actual operating conditions in the workplace, storage, transport, or expected market use. For this reason, these test results cannot be used to determine the hazard class of the material. Instead, an estimate of acute toxicity is calculated based on the strength of evidence and expert judgment and is used to justify a modified classification for acute inhalation toxicity.</p> <p>Acute toxicity estimates: 1.5 mg/l</p>

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

	<p>Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method</p> <p><u>Ingredients:</u></p> <p>Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate:</p> <p>Acute dermal toxicity : LD50 (Rabbit, male and female): > 9,400 mg/kg Method: OECD 402 Guideline test</p> <p>Isocyanic acid, polymethylenepolyphenylene ester: Acute dermal toxicity : LD50 (Rabbit, male and female): > 9,400 mg/kg Method: OECD 402 Guideline test</p> <p>4,4'-methylenediphenyl diisocyanate: Acute dermal toxicity : LD50 (Rabbit): > 9,400 mg/kg Remarks: Information provided is based on data obtained from equivalent substances.</p> <p>Acute toxicity (other route: No data available on administration)</p> <p>Skin corrosion/irritation</p> <p><u>Ingredients:</u></p> <p>Reaction mass of 4,4'-methylenediphenyldiisocyanate and o-(p-isocyanatobenzyl)phenylisocyanate: Species: Rabbit Method: OECD 404 Guideline Test Result: Irritating to the skin.</p> <p>Isocyanic acid, polymethylenepolyphenylene ester: Species: Rabbit Rating: Irritating to the skin. Method: Guideline test OECD 404 Result: Skin irritation</p> <p>4,4'-methylenediphenyl diisocyanate: Species: Rabbit Assessment: Irritating to the skin. Method: Guideline test OECD 404 Result: Irritating to the skin.</p> <p>Serious eye injury/eye irritation</p> <p><u>Ingredients:</u></p>
--	--

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

	<p>Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate:</p> <p>Species: Rabbit Method: OECD 405 Guideline test Result: Mild eye irritation</p> <p>Isocyanic acid, polymethylenepolyphenylene ester: Species: Rabbit Assessment: Mild eye irritant Method: Guideline test OECD 405 Result: Causes eye irritation, which disappears within 7 days.</p> <p>4,4'-methylenediphenyl diisocyanate: Species: Rabbit Method: OECD 405 Guideline test Result: Mild eye irritation</p> <p>Sensitization of the respiratory tract/skin</p> <p><u>Ingredients:</u></p> <p>Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate: Route of exposure: Skin Species: Guinea pig Method: OECD 406 guideline test Result: May cause sensitization by skin contact.</p> <p>Route of exposure: Respiratory tract Species: Guinea pig Result: May cause sensitization by inhalation.</p> <p>Isocyanic acid, polymethylenepolyphenylene ester: Route of exposure: Skin Species: Guinea pig Method: Guideline test OECD 406 Result: May cause sensitization by contact with skin.</p> <p>Route of exposure: Respiratory tract Species: Rat Result: May cause sensitization by inhalation.</p> <p>4,4'-methylenediphenyl diisocyanate: Route of exposure: Skin Species: Guinea pig Assessment: May cause sensitization by contact with skin. Method: Guideline test OECD 406 Result: Possibility or evidence of causing skin hypersensitivity in humans.</p> <p>Test type: Local lymph node test (LLNA) Route of exposure: Respiratory tract Species: Guinea pig</p>
--	--

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

Result: May cause sensitization by inhalation.

Ingredients:

Isocyanic acid, polymethylenepolyphenylene ester:

Judgement: May cause an allergic skin reaction. May cause allergy or asthma symptoms or difficulty breathing if inhaled.

4,4'-methylenediphenyl diisocyanate:

Judgement: May cause allergy or asthma symptoms or difficulty breathing if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity**Ingredients:**

Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate:

Genotoxicity in vitro

: Concentration: 200 µg/plate
metabolic activation: with and without metabolic
activation Method: Directive
67/548/EEC, Annex V, B.13/14.
Result: negative

Isocyanic acid, polymethylenepolyphenylene ester:

Genotoxicity in vitro : Concentration: 200 µg/plate metabolic activation:
with and without metabolic activation Method:
Directive 67/548/EEC, Annex V, B.13/14.
Result: negative

4,4'-methylenediphenyl diisocyanate:

Genotoxicity in vitro: Test type: reverse mutation test Concentration: 200 µg/plate
metabolic activation: with and
without metabolic activation Method: Directive
67/548/EEC, Annex V, B.13/14.

Result: negative

Ingredients:

Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate:

Genotoxicity in vivo

: Method of application: Inhalation
Exposure time: 3 w
Dose: 118 mg/m³
Method: OECD 474 Guideline Test
Result: negative

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

	<p>Isocyanic acid, polymethylenepolyphenylene ester: Genotoxicity in vivo : Method of application: Inhalation Result: Not classified due to inconclusive data.</p> <p>Method of application: Inhalation Exposure time: 3 w Dose: 113 mg/m³ Method: OECD 474 Guideline Test Result: negative</p> <p>4,4'-methylenediphenyl diisocyanate: Genotoxicity in vivo : Test type: In vitro test for chromosomal abnormalities Research species: Rat (male) Cell type: Somatic Method of application: Inhalation Exposure time: 3 Weeks Dose: 113 mg/m³ Method: OECD Guideline test 474 Result: negative</p> <p>Test type: single-cell gel electrophoresis test Research species: Rat (male) Cell type: Liver cells Method of application: inhalation (dust particles/mist/smoke) Dose: 2.5/4.9/12 mg/m³ Method: OECD 489 Guideline test Result: negative</p> <p>Germ cell mutagenicity - Assessment : No data available</p> <p>Carcinogenicity Product: Remarks: A study in which rats were exposed to a respirable aerosol of polymeric MDI for 2 years showed that chronic lung irritation occurred at high concentrations of MDI. Only at the highest concentration (6 mg/m³) did a significant increase in the number of benign lung tumors (adenoma) and one malignant tumor (adenocarcinoma) occur. No tumors developed at exposure to 1 mg/m³, while at 0.2 mg/m³ no symptoms were observed at all. The total number of tumors, both benign and malignant, and the number of animals with tumors did not differ from the control group. The increase in the number of lung tumors is attributed to prolonged irritation of the lungs and the associated accumulation of solid material in the lungs, which occurred during the study. Unless there is prolonged exposure to high concentrations that could cause chronic irritation and damage to the lungs, tumor formation is highly unlikely.</p>
--	---

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

	<p>Remarks: Industrial use of aprotic polar solvents for cleaning can release hazardous primary aromatic amines (>0.1 Based on animal studies, primary aromatic amines are considered potential carcinogens to humans. Some of those chemicals are proven carcinogens for people</p> <p>Provided that the recommended personal protective equipment and hygiene measures are applied, no adverse effects on human health are to be expected.</p> <p>Constituents: Reaction mass of 4,4'-methylenediphenyldiisocyanate and o-(p-isocyanatobenzyl)phenylisocyanate: Carcinogenicity assessment -: Based on animal studies, there is limited evidence of carcinogenic effects.</p> <p>Isocyanic acid, polymethylenepolyphenylene ester: Carcinogenicity assessment: Suspected carcinogen to humans</p> <p>4,4'-methylenediphenyl diisocyanate: Carcinogenicity, assessment: Presumed carcinogen to humans</p> <p>Reproductive toxicity Constituents: Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate: Effects on the : Species: Rat, male and female fertility Method of application: Inhalation Method: OECD 414 Guideline Test Result: No effects on fertility and early embryonic development were observed.</p> <p>Isocyanic acid, polymethylenepolyphenylene ester: Species: Rat, male and female Method of application: Inhalation Method: OECD Guideline test 414 Remarks: No adverse effects have been reported</p> <p>Constituents: Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate: Effects on development : Species: Rat, female fetus Method of application: Inhalation General maternal toxicity: Dose at which no harmful effect is observed: 4 mg/m³ Method: OECD 414 guideline test Result: No teratogenic effects.</p> <p>Isocyanic acid, polymethylenepolyphenylene ester: Species: Rat, male and female Method of application: Inhalation General maternal toxicity: 4 mg/m³ Method: OECD Guideline test 414</p>
--	--

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

	<p>Result: No teratogenic effects.</p> <p>4,4'-methylenediphenyl diisocyanate: Test type: Prenatal Species: Rat, female Method of application: Inhalation Dose: 0/1/3/9 mg/m³ Duration of a single treatment: 10 days Treatment frequency: 7 days / week General maternal toxicity: Lowest dose at which a harmful effect is observed: 9 mg/m³ Developmental toxicity: Concentration at which no harmful effect is observed: 3 mg/m³ Method: OECD Guideline test 414</p> <p>Method: OECD 443 Guideline test Reproductive toxicity: No data available</p> <p>Single-exposure STO Constituents: Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate: Route of exposure: Inhalation Target organs: Respiratory tract Assessment: May cause respiratory irritation.</p> <p>Isocyanic acid, polymethylenepolyphenylene ester: Route of exposure: Inhalation Target organs: Respiratory tract Assessment: May cause respiratory irritation.</p> <p>4,4'-methylenediphenyl diisocyanate: Route of exposure: Inhalation Target organs: Respiratory tract Assessment: May cause respiratory irritation.</p> <p>STO for repeated exposure Constituents: Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate: Route of exposure: Inhalation Target organs: Respiratory tract Assessment: May cause organ damage with prolonged or repeated exposure.</p> <p>Isocyanic acid, polymethylenepolyphenylene ester: Assessment: May cause damage to organs through prolonged or repeated exposure. Remarks: Information provided is based on data obtained from equivalent substances.</p> <p>4,4'-methylenediphenyl diisocyanate: Route of exposure: Inhalation Target organs: Respiratory system</p>
--	--

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

	<p>Assessment: May cause organ damage through prolonged or repeated exposure.</p> <p>Toxicity upon repeated administration</p> <p>Ingredients:</p> <p>Reaction mass of 4,4'-methylenediphenyldiisocyanate and o-(p-isocyanatobenzyl)phenylisocyanate: Species: Rat, male and female NOEC: 0.2 Test atmosphere: dust/mist Exposure time: 2 yr Number of exposures: 5 d Method: OECD 453 Guideline test</p> <p>Isocyanic acid, polymethylenepolyphenylene ester: Species: Rat, male and female NOEC: 0.2 Test atmosphere: dust/mist Exposure time: 2 yr Number of exposures: 5 d Method: OECD 453 Guideline test</p> <p>Species: Rat, male and female NOEC: < 4 Test atmosphere: dust/mist Exposure time: 90 days Number of exposures: 5 days Method: OECD Guideline test 413</p> <p>Species: Rat, male and female NOEC: 1 Test atmosphere: dust/mist Exposure time: 90 days Number of exposures: 5 days Method: OECD 413 Guideline test</p> <p>Species: Rat, male and female LOEC: 2 Test atmosphere: dust/mist Exposure time: 14 d Number of exposures: 5 d</p> <p>Species: Rat, male and female LOEC: 1.1 Test atmosphere: dust/mist Exposure time: 14 d Number of exposures: 6 h Method: OECD 412 Guideline test</p> <p>4,4'-methylenediphenyl diisocyanate: Species: Rat, female LOEC: 0.23 Test atmosphere: dust/mist Exposure time: 2 years 17 h Number of exposures: 5 days/week Dose: 0, 0.2, 0.7, 2.1 mg/m³ Method: Chronic toxicity</p> <p>Toxicity upon repeated administration: No data available</p>
--	--

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

		Aspiration toxicity No data available
	11.2	Information about other hazards Endocrine disrupting properties
		<p>Judgement : The substance/mixture does not contain components which are presumed to have endocrine-disrupting properties, pursuant to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a level of 0.1% or higher.</p> <p>Experience with human exposure General information: No data available Inhalation: No data available Skin contact: No data available Contact with the eyes: No data available Swallowing: No data available</p> <p>Toxicology, Metabolism, Distribution No data available Neurological effects No data available</p>
SECTION 12: Ecological information		
	12.1	Toxicity:

SAFETY DATA SHEET

pursuant to Regulation (EC) No 1907/2006

SUPRASEC® 1540 PU ADHESIVE, Component BVersion
2.1Revision date: Security information Date of last publication: 01.04.2020 04.11.2021
Date of first issue: 31.05.2018
400001000139**Safety Data Sheet**Sheet number:
pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

Print date 13.12.2022

		<p><u>Ingredients:</u></p> <p>Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate:</p> <p>Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 1,000 mg/l Exposure time: 96 h Test type: static test Test substance: Freshwater Method: OECD 203 Test Guideline</p> <p>Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 24 h Test type: static test Test substance: Freshwater Method: OECD test guideline 202</p> <p>Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 1,640 mg/l Exposure time: 72 h Test type: static test Test substance: Freshwater Method: OECD test guideline 201</p> <p>Toxicity to microorganisms: EC50 (activated sludge): > 100 mg/l Exposure time: 3 h Test type: static test Test substance: Freshwater Method: OECD test guideline 209</p> <p>Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: >= 10 mg/l Exposure time: 21 d Species: Daphnia magna (large water flea) Test type: semi-static test Test substance: Freshwater Method: OECD test guideline 211</p> <p>Soil toxicity organisms : EC50: > 1,000 mg/kg Exposure time: living 336 h Species: Eisenia fetida (earthworms) Method: OECD 207 Test Guideline</p>
12.2	Persistence and degradability	

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

		<p><u>Ingredients:</u></p> <p>Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate: Biodegradability : Seed material : Domestic sludge Concentration: 30 mg/l Result: Not biodegradable Biodegradation: 0% Exposure time: 28 days Method: Guideline test OECD 302 C</p> <p>Isocyanic acid, polymethylenepolyphenylene ester: Biodegradability : Seed material : Domestic sludge Concentration: 30 mg/l Result: Not biodegradable Biodegradation: 0%</p>
12.3	Bioaccumulation:	
		<p><u>Ingredients:</u></p> <p>Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate: Bioaccumulation : Species: Cyprinus carpio (Carp) Bioconcentration factor (BCF): 200 Remarks: Bioaccumulation is unlikely.</p> <p>Bioconcentration factor (BCF): 439 Remarks: Bioaccumulation is unlikely.</p> <p>Partition coefficient: n-octanol/water : log Pow: 4.51 (22 °C) pH: 7 Method: OECD test guideline 117</p> <p>Isocyanic acid, polymethylenepolyphenylene ester: Bioaccumulation : Species: Cyprinus carpio (Carp) Bioconcentration factor (BCF): 200 Remarks: Bioaccumulation is unlikely.</p> <p>4,4'-methylenediphenyl diisocyanate: Bioaccumulation : Species: Cyprinus carpio (Carp) Exposure time: 28 d Concentration: 0.08 µg/l Bioconcentration factor (BCF): 200 Method: OECD 305 Guideline test Remarks: Bioaccumulation is unlikely.</p> <p>Partition coefficient: noctanol/water : log Pow: 4.52 (20 °C) pH: 7 Method: OECD test guideline 117</p>
12.4	Mobility in the soil	

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

		<p><u>Ingredients:</u></p> <p>4,4'-methylenediphenyl diisocyanate: Distribution in and between : Koc: 4.5 environmental compartments Method: QSAR</p> <p>Stability in the soil : Earth temperature: 22 °C Spread time: 24 h Method: OECD 307 Guideline Test</p>
12.5	Results of PBT and zPzB assessment	
		<p><u>Product:</u></p> <p>Judgement : This substance/mixture does not contain components that can be considered persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.</p>
12.6	Hormone-disrupting properties	
	The substance/mixture does not contain components which are presumed to have endocrine-disrupting properties, pursuant to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a level of 0.1% or higher.	
12.7	Other harmful effects	
	Isocyanate reacts with water at the interface, forming CO ₂ and a solid, insoluble product with a high melting point (polyurea). This reaction is strongly promoted by surfactants (e.g., liquid soap) or water-soluble substances. Based on current experience, polyurea is inert and non-biodegradable.	
SECTION 13 Disposal instructions		
13.1	Waste processing methods	
	Recommendations for the disposal of products/packaging: Dispose of safely in accordance with local/national regulations. Additional information: Empty packaging will be recycled, reused, or disposed of in accordance with local regulations. Ecology - waste: Prevent discharge into the environment. EURAL code: 08 05 01* - isocyanate waste	
SECTION 14: Information regarding transport		
	Land transport (ADR / RID / GGVSEB)	
14.1	UN number	
	Not regulated	
14.2	Proper shipping name in accordance with the UN Model Regulations:	
	Not regulated	
14.3	Transport hazard class(es):	
	Not regulated	
14.4	Packaging group:	
	Not regulated	

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

14.5	Environmental hazards:
	Not regulated
14.6	Special precautions for the user:
	Not for hazardous transport goods. Protect from moisture. Heat sensitive from +50 °C. Keep separate from food and beverages.
14.7	Transport in bulk in accordance with Annex II to MARPOL 73/78 and the IBC Code
	Not applicable
SECTION 15: Regulations	
15.1	Specific safety, health and environmental regulations and legislation for the substance or mixture: Directive
	<p>2012/18/EU on major accident hazards involving dangerous substances.</p> <p>Not applicable</p> <p>REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) Restriction conditions for the following dates must be taken into consideration: 3, 56, 74</p> <p>This product contains substances subject to EU Directive 1907/2006 (REACH), Annex XVII.</p> <p>4,4'-methylenediphenyldiisocyanate; diphenylmethane-4,4'-diisocyanate CAS No.: 101-68-8, EC No.: 202-966-0 Subject to REACH Annex XVII, No. 56, 74</p> <p>o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate CAS No.: 5873-54-1, EC No.: 227-534-9</p> <p>Subject to REACH Annex XVII, No. 56, 74</p> <p>2,2'-methylenediphenyldiisocyanate; diphenylmethane-2,2'-diisocyanate CAS No.: 2536-05-2, EC No.: 219-799-4 Subject to REACH Annex XVII, No. 56, 74</p> <p>Water pollution class (Germany) 1 mildly polluting Classification according to AwSV, Annex 1 (5.2)</p> <p>All existing national regulations for the handling of isocyanates must be observed.</p> <p>For products containing solvents: All existing national regulations regarding the handling of solvents must be observed.</p> <p>Other regulations Take into account Directive 92/85/EEC on the protection of maternity or stricter national legislation, where applicable. Take into account Directive 94/33/EC on the protection of young people at work or stricter national legislation, where applicable.</p>

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

	<p>Other regulations of the European Commission for the Association of Paint and Printing Ink Manufacturers - CEPE - The following information is provided for dyes containing isocyanate: Ready-to-use dyes containing isocyanates can cause irritation of the mucous membranes – in particular irritate the respiratory tract and trigger hypersensitivity reactions.</p> <p>There is a risk of sensitization upon inhalation of vapors or spray mist. When handling isocyanate-containing dyes, all measures for solvent-containing dyes must be carefully observed. In particular, spray mists and vapors must not be inhaled.</p> <p>Allergic, asthmatic, as well as persons susceptible to respiratory diseases, must not perform work with isocyanate-containing dyes.</p>
15.2	Chemical safety assessment
	Chemical safety assessment has not been performed.
SECTION 16: Other information	
	<p>Indication of changes: Revision: *.</p> <p>Data sources: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on the classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No 1907/2006.</p>
	<p>Full text of hazard statements (H-phrases) according to sections 2, 3 and 10 of the CLP classification (1272/2008/EC).</p> <p>H312 Harmful in contact with skin. H314 Causes severe burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes severe eye irritation. H331 Toxic by inhalation. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or difficulty breathing if inhaled. H335 May cause irritation of the respiratory tract. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure.</p> <p>The product is primarily used as a hardener in coating materials or adhesives. Handling polyurethane raw materials containing reactive polyisocyanates and residual levels of monomeric MDI requires appropriate safety measures (see also this Safety Data Sheet). Therefore, these products may only be used in industrial or professional applications.</p> <p>ISOPA guidelines for safe loading/unloading, transport and storage of TDI and MDI. See ISOPA website: www.isopa.org (Product Stewardship "Walk the Talk").</p> <p>Abbreviations and acronyms ADN Accord européen relatif au international transport des marchandises Dangereuses par voie de Navigation intérieure</p>

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route American National Standards Institute American Society of Testing and Materials (US)
ANSI	Acute Toxic Estimate
ASTM	Regulation on Environmental Assessment of Substances Bioconcentration Factor Chemical
ATE	Abstract Service Regulation
AwSv	on Classification, Labeling and Packaging of Substances and Mixtures Cancerogenic Mutagenic Reprotoxic Deutsches Institut für
BCF	Normung Derived No-Effect Level Effect
CAS	Concentration ... % European Waste
CLP	Catalog International Air
CMR	Transport Association
DIN	Intermediate Bulk Container
DNEL	International Civil Aviation Organization
EC...	International Maritime Dangerous Goods International Maritime Organization
EWC	International Organization for Standardization
IATA	International Union of Pure and Applied Chemistry Lowest Observable Adverse Effect Level Lethal
IBC	Concentration, ...% Lethal Dose, ...% International Convention for the Prevention of Pollution From Ships No
ICAO	Observed Adverse Effect Level
IMDG	No Observed Effect
IMO	Level/Concentration Organization for Economic Co-operation and Development
ISO	
IUPAC	
LOAEL	
LC...	
LD...	
MARPOL	
NOAEL	persistent, bioaccumulative, toxic Predicted
NOEL/NOEC	No-Effect Concentration Registration, Evaluation, Authorization and Restriction of Chemicals Règlement concernant le transport International ferroviaire de merchandise Dangerous Specific Target
OECD	
PBT	
PNEC	
REACH	Organ Toxicity Technical Rules for Gefahrstoffe very Persistent, very
RID	Bioaccumulative Wassergefährdungsklasse
STO	
TRGS	
vPvB	
WGK	
<p>Relevant changes since the previous edition are marked in the margin. This version replaces all previous editions.</p>	
<p>Further information</p>	
Classification of the preparation: Acute	Classification procedure:
Tox. 4 H332 Skin Irrit.	Calculation method
2 H315 Eye Irrit. 2	Calculation method
H319	Calculation method

1540 PU ADHESIVE, Component B**Safety Data Sheet**

pursuant to Regulation (EC) No 453/2010

Publication date: 09/10/2024

Revision date: 09/10/2024

Version: 1.0

	<p>Resp. Sens. 1 H334 Skin Sens. 1 H317 Carc. 2 H351 STOT SE 3 H335 STOT RE 2 H373</p> <p>Calculation method Calculation method Calculation method Calculation method Calculation method</p> <p>The information on this Safety Data Sheet is, to the best of our knowledge, accurate on the indicated issue date. This information is intended solely as a guide for safe handling, use, processing, storage, transport, disposal, and release, and should not be considered a guarantee or indication of quality. The information applies only to the product mentioned herein and is not automatically valid when used together with other products or in any other process, unless stated otherwise.</p>
	<p>The product is primarily used as two-component coating systems. Handling coating materials containing reactive polyisocyanates and monomeric MDI residues requires appropriate safety measures (see also this Safety Data Sheet). Therefore, these products may only be used in industrial or professional applications.</p> <p>They are not suitable for use in DIY applications. Changes made since the publication of the previous edition are marked in the margin. This edition replaces all previous versions.</p> <p>DISCLAIMER OF LIABILITY The information in this sheet was obtained from sources that are, to the best of our knowledge, reliable. However, the information was made available without any guarantee - directly implied - regarding correctness. The conditions or methods of handling, storage, use, or finishing of the product are beyond our control and influence and may also be beyond our knowledge. For these and other reasons, we accept no liability whatsoever, while liability for losses, damage, or expenses that may arise in any way from the handling, storage, use, or finishing and disposal of the product is expressly disclaimed.</p>