

Component B, PU 3250 Cast Floor UV

Safety Data Sheet

pursuant to Regulation (EC) No 453/2010

Publication date: 03/08/2021

Revision date: // 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: Dutch Resin Component B, PU 3250 Cast Floor UV Product group: PU Flooring				
1.2	Relevant identified use Main usage category Industrial/Professional use spec. Use of the substance or mixture; Forms of use that are advised against			Industrial use For professional use only Flooring No additional information available	
1.3	Dutch Resin Group P.O. Box 1074 7301 BH 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	Address	Emergency number
		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 Acute toxicity, Inhalation, Category 4 (H332) Skin sensitization, Sub-category 1B (H317) Specific target organ toxicity (single exposure), Category 3 (H335) Chronic hazard to the aquatic environment, Category 3 (H412)				
	Warning				


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2.2	Labeling elements			
	<p>Hazardous ingredients that must be listed on the label aliphatic polyisocyanate</p> <p>Hazard statements: H317 May cause an allergic skin reaction. H332 Harmful if inhaled. H335 May cause respiratory irritation. H412 Harmful to aquatic organisms, with long-lasting effects.</p> <p>Precautionary measures P261 Avoid inhalation of dust/ smoke/ gas/ mist/ vapor/ spray. P273 Avoid release into the environment. P280 Wear protective gloves. 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. P333 + P313 If skin irritation or rash occurs: consult a doctor. P362 + P364 Remove and wash contaminated clothing before reuse.</p> <p>Additional risk characteristics and labelling elements: EUH204 Contains isocyanates. May cause an allergic reaction.</p>  <p>Warning</p>			
2.3	Other dangers			
	<ul style="list-style-type: none"> • Results of PBT and zPzB assessment • PBT: Not usable. • zPzB: Not usable. 			
SECTION 3: Composition and information on ingredients				
3.2	Mixture of hazardous and non-hazardous substances			
	name	Product identification	% Classification in accordance with Regulation (EC) No 1272/2008 [CLP]	
	Hexamethylene-1,6-diisocyanate homopolymer	CAS No.: 28182-81-2 REACH registration number: 01-2119488934-20-0000 EC No.: 500-060-2	<100 Classification (1272/2008/EC): Acute Tox. 4 Inhalative H332 Skin Sens. 1 H317 STOT SE 3 H335	
	hexamethylene-1,6-diisocyanate	CAS No.: 822-06-0 Index no.: 615-011-00-1 REACH registration number: 01-2119457571-37-0000, 01-2119457571-37-0005, 01-2119457571-37-0006	0.2 Classification (1272/2008/EC): Acute Tox. 4 Oral H302 Acute Tox. 1 Inhalative H330 Skin Irrit. 2 H315 Eye Irrit.2 H319 Resp. Sens. 1 H334 Skin Sens. 1 H317 STOT SE 3 H335 Specific Limit Concentrations (GHS): Resp. Sens. 1 H334 >= 0.5%	

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		Skin Sens. 1 H317 >= 0.5%
		No exposure scenarios are required for the above-mentioned contaminants of the substances under Article 3(1) of Regulation (EC) No 1907/2006. Candidate list of substances, great care regarding authorization This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
		Full content of the R, H and EUH phrases: see section 16
SECTION 4: First aid measures		
4.1		Description of the first aid measures
		General advice: Immediately remove, disinfect, and dispose of soiled or soaked clothing and shoes. In case of inhalation: Move person to fresh air, keep warm, allow to rest; medical assistance is required if breathing difficulties occur. 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. 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. If swallowed: DO NOT induce vomiting. Rinse mouth with water. Medical advice required.
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
		Therapeutic measures: No data available.
SECTION 5: Firefighting measures		
5.1		Extinguishing equipment
		Suitable extinguishing agents: Foam. AFFF. Water mist. Unsuitable extinguishing agents: none
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 in the event of fire and/or explosion. In the event of a fire in the immediate vicinity, increased pressure, risk of bursting. Cool containers threatened by fire with water and, if possible, remove them from the danger zone.
5.3		Advice for firefighters
		During firefighting, respiratory protection with independent air supply and a tight-fitting chemical protective suit are required. Do not allow contaminated extinguishing water to penetrate the soil, groundwater, or surface water.
SECTION 6: Measures in the event of accidental release of the substance or mixture		
6.1		Personal precautions, protective equipment and emergency procedures
		Put on safety clothing (see section 8). Ensure adequate airflow and ventilation. Keep uninvolved persons at a distance
6.11	For	persons other than emergency services

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	Protective equipment: Equip cleaning staff with appropriate protection. Emergency procedures: Keep spectators at a distance.
6.12 For	the emergency services
	additional information available
6.2	Environmental precautions
	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.
6.3	Methods and material for containment and cleaning up
6.3	Remove mechanically; cover the residue with damp, liquid-absorbent material (e.g., sawdust, calcium silicate hydrate-based chemical binder, sand). After approx. 1 hour, place in waste packaging; do not seal (CO ₂ generation!). Keep moist and leave outdoors in a safe place for several days. The spilled area can be cleaned with the following recommended disinfection solution: Disinfectant solution 1: 8-10% sodium carbonate and 2% liquid soap in water Disinfectant solution 2: liquid/traditional soap (potassium soap with ~15% anionic surfactant): 20 ml; water: 700 ml; polyethylene glycol (PEG 400): 350 ml Disinfectant 3: 30% liquid detergent for commercial purposes (contains monoethanolamine), 70% water.
6.4	Reference to other sections
	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
	General terms and conditions of use are further specified in the annex in accordance with REACH Regulation (EC) No 1907/2006. Ensure adequate ventilation and/or extraction in the workplace. Air extraction is required for spray application. For solid products: Avoid dust generation and dust deposition. The air limit values mentioned in Paragraph 8 must be respected. In workplaces where isocyanate aerosols and/or vapors may be generated in higher concentrations, exceedance of the air limit value must be prevented by targeted air extraction. Air circulation must take place away from the persons. For products containing solvents: Protection against explosion required. The personal safety measures described in Paragraph 8 must be observed. The safety measures required when handling isocyanates must be observed. Avoid contact with skin and eyes as well as inhalation of vapors. Keep separate from food and beverages. Wash hands and use skin protection ointment before breaks and after finishing work. Keep work clothing separate. Remove contaminated clothing immediately.
7.2	Conditions for safe storage, including incompatible products
	Keep dry and store in a tightly closed container. Further storage information to ensure quality can be found in our technical product information sheet.
7.3	Specific end-use

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		B Component coating
SECTION 8: Exposure control measures/personal protection		
	8.1	Control parameters
		No data concerning air limit values required under EC Directive 2006/121/EC.
	8.2	Measures to control exposure
		<p>Respiratory protection Nose and mouth protection is required in case of insufficient ventilation at the workplace and during injection molding. A fresh-air mask is recommended, or for short-term work, a combination filter A2-P2.</p> <p>Further recommendations regarding respiratory protection can be found in the individual exposure scenarios in the appendix.</p> <p>Use of this product is advised against in case of hypersensitivity of the respiratory tract and skin (asthma, chronic bronchitis, chronic skin diseases).</p> <p>Hand protection Suitable material for safety gloves; EN 374: Butyl rubber - IIR: thickness $\geq 0.5\text{mm}$; Breakthrough time $\geq 480\text{min}$. Fluororubber - FKM: thickness $\geq 0.4\text{mm}$; Breakthrough time $\geq 480\text{min}$. Advice: remove contaminated gloves.</p> <p>Eye protection Wear eye/face protection.</p> <p>Skin and body protection Wear suitable protective clothing.</p>
SECTION 9: Physical and chemical properties		
	9.1	Information about basic physical and chemical properties
		<p>Appearance: liquid Color: colorless to yellowish Odor: almost odorless Odor threshold: not established pH: not measurable Delta point: approx. -42 °C ISO 3016 Boiling point/boiling range: n/ a, decomposition DIN 53171 Flash point: approx. 195 °C at 1,013 mbar DIN EN ISO 2719 Evaporation rate: not established Flammability (solid, gas): Not applicable Final ignition number: Not applicable Vapor pressure: approx. 5 hPa at 20 °C EC A4 approx. 10 hPa at 50 °C EC A4 approx. 11 hPa at 55 °C EC A4 Vapor density: not established Density: approx. 1.15 g/cm³ at 20 °C DIN 51757 Miscellaneusness with water: not miscible at 15 °C Surface tension: not established Partition coefficient (n-octanol/water): not established Autoignition temperature: Not applicable Ignition temperature: approx. 430 °C DIN 51794 Decomposition temperature: not determined Viscosity, dynamic: approx. 1,004 mPa.s at 20 °C DIN 53019 Explosive properties: not determined Dust explosion class: Not applicable Oxidizing properties: not determined</p>

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9.2	Other information
	The values provided do not correspond to the product specification for every case. The specifications must be taken from the technical information sheet.
SECTION 10: Stability and reactivity	
10.1	Reactivity
	No additional information available
10.2	Chemical stability
	Not determined.
10.3	Possible dangerous reactions
	Exothermic reaction with amines and alcohols; with water, CO ₂ evolution; increased pressure in closed packaging; risk of bursting.
10.4	Conditions to be avoided
	This information is not available.
10.5	Chemically interacting materials
	This information is not available.
10.6	Dangerous decomposition products.
	No hazardous decomposition products with professional storage and handling.
SECTION 11: Toxicological information	
11.1	Information about toxicological effects
	<p>Acute toxicity, oral LD50 Rat: > 2,000 mg/kg Toxicological studies on a comparable product.</p> <p>Acute toxicity, dermal Hydrophilic, aliphatic polyisocyanate LD50 Rat, male/female: > 2,000 mg/kg Method: OECD 402 Guideline test Investigating a similar product.</p> <p>Acute toxicity, inhalatory LC50 Rat, female: 390 mg/m³, 4 h Test atmosphere: dust/mist Method: OECD 403 Guideline test The test atmosphere established in the animal experiment is not representative of working environments, how the substance is marketed, and how it can reasonably be expected to be used. The test result can therefore not be applied directly to assess hazard. Based on expert assessment and evaluation of the evidence, a modified classification for acute inhalation toxicity is justified.</p> <p>Toxicological studies on a comparable product. Converted acute toxicity estimate 1.5 mg/l Test atmosphere: dust/mist Method: Expert judgment Primary skin irritant effect Species: Rabbit Result: mildly irritating Classification: No skin irritation</p> <p>Toxicological studies on a comparable product. Acute mucosal irritation Species: Rabbit Result: mildly irritating Classification: No eye irritation</p>

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Toxicological studies on a comparable product.
 Sensitization Skin hypersensitivity according to Magnusson/Kligmann (maximization test): Species: Guinea pig Result: positive
 Classification: May cause sensitization by contact with skin.
 Method: OECD 406 guideline test
 Toxicological studies on a similar product
 No hypersensitivity reaction of the lungs in animal experiments. No pulmonary sensitizing potential could be established in guinea pigs with polyisocyanate based on hexamethylene diisocyanate after either intradermal or inhalation induction.
 Subacute, subchronic, and prolonged toxicity
 No data available.
 Carcinogenicity
 Hydrophilic, aliphatic polyisocyanate
 No data available.
 Reproductive toxicity/fertility
 Hydrophilic, aliphatic polyisocyanate
 No data available.
 Reproductive toxicity/Teratogenicity
 No data available.
 Genotoxicity in vitro
 Test type: Salmonella/microsome test (Ames test)
 Result: No indications of mutagenic influence.
 Method: OECD Test Guideline 471
 Toxicological studies on a comparable product.
 Genotoxicity in vivo
 No data available.
 SOT assessment – single exposure
 May cause irritation of the respiratory tract.
 Investigating a similar product.
 SOT assessment – repeated exposure
 Hydrophilic, aliphatic polyisocyanate
 Based on available data; the classification criteria have not been met.
 Aspiration toxicity
 Hydrophilic, aliphatic polyisocyanate
 Based on available data; the classification criteria have not been met.
 Further instructions
 Special properties/reactions: With prolonged exposure, there is a risk of concentration-dependent irritation of the eyes, nose, throat, and respiratory tract.
 Delayed onset of these symptoms and development of hypersensitivity (respiratory difficulties, cough, asthma) is possible. Individuals who are hypersensitive may experience reactions even at low concentrations of isocyanate, even if the concentration is below the occupational exposure limit. Tanning and irritation effects are possible with prolonged contact with the skin. Animal studies and other research indicate that skin contact with diisocyanates could play a role in respiratory reactions and hypersensitivity to isocyanates.

SECTION 12: Ecological information

12.1	toxicity
	<p>Ecotoxicological studies on the product are not available. Do not allow to penetrate surface water, wastewater, or soil. The following lists the ecotoxicological data associated with the components, insofar as they are available to us.</p>
12.2	Persistence and degradability
	Biodegradability

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		Biodegradation: 2%, 28 days, i.e. not easily biodegradable Method: OECD test guideline 301 F Ecotoxicological studies on a comparable product
	12.3 Bioaccumulation:	
		No further relevant information available.
	12.4 Mobility in the soil	
		No data available.
	12.5 Results of PBT and zPzB assessment	
		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.
	12.6 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.
	12.7 Other harmful effects	
		Not known
SECTION 13 Disposal instructions		
	13.1 Waste processing methods	
		After the final product withdrawal, product residues must be removed from the packaging (drip-free, powder-free, paste-free). After neutralization of the product residues remaining on the walls, the product and hazard warning must be removed. These packages may be handed over, specifically per packaging medium, to the collection points of the existing take-back systems of the chemical industry for recycling. Reuse or recycling must be carried out in accordance with national laws and regulations and environmental protection measures. No discharge via wastewater.
SECTION 14: Information regarding transport		
		Land transport (ADR / RID / GGVSEB)
	14.1 UN number	
		ADR-UN Number: Non-dangerous goods IATA-UN Number: Non-dangerous goods IMDG-UN Number: Non-hazardous goods
	14.2 Proper shipping name in accordance with the UN Model Regulations:	
		ADR Shipping Name: Non-dangerous goods IATA Shipping Name: Non-dangerous goods IMDG-Shipping Name: Non-hazardous goods
	14.3 Transport hazard class(es):	
		ADR Class: Non-dangerous goods ADR - Hazard identification number: Non-dangerous goods IATA Class: Non-dangerous goods IATA Label: Non-dangerous goods IMDG Class: Non-hazardous goods IMDG Class: Non-hazardous goods

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	14.4 Packaging group:	
		ADR-Packing Group: Non-hazardous goods IATA Packing group: Non-dangerous goods IMDG-Packing group: Non-hazardous goods
	14.5 Environmental hazards:	
		ADR Environmental pollutant: Non-hazardous goods IMDG-Marine pollutant: Non-hazardous goods
	14.6 Special precautions for the user:	
		See sections 6-8. Further instructions: No dangerous goods to transport. Protect against moisture. Heat sensitive from +50 °C. Cold sensitive from +10 °C. Keep separate from foodstuffs, stimulants, acids, and alkalis
	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 2012/18/EU on the control of major accident hazards involving dangerous substances. Not applicable Water pollution class (Germany) 1 slightly water polluting (according to Annex 4 VwVwS) All existing national regulations for the handling of isocyanates must be observed CAS No.: 2536-05-2, EC No.: 219-799-4 Subject to REACH Annex XVII, No. 56
	15.2	Chemical safety assessment
		No chemical safety assessment has been carried out for this substance/mixture, or its components, respectively.
SECTION 16: Other information		
		Full text of hazard statements (H-phrases) according to sections 2, 3 and 10 of the CLP classification (1272/2008/EC). H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H330 Fatal if inhaled. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or difficulty breathing if inhaled. H335 May cause respiratory irritation. H412 Harmful to aquatic organisms, with long-lasting effects. The product is primarily used as a hardener in coating materials. Handling coating materials or adhesives containing reactive polyisocyanates and monomeric HDI residues requires appropriate safety measures (see also this Safety Data Sheet). Therefore, these products may only be used in industrial or professional applications. They are not suitable for DIY use.

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Other information:

REACH Declaration: All information is based on current knowledge. Consistency of the data in this Safety Data Sheet with the data stated in the Chemical Safety Report has been considered to the extent that these were available at the time of compilation (see Version number and Revision date).

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 provided without any guarantee—directly implied—regarding its accuracy. 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.

Abbreviations and acronyms:

ADN Accord européen relatif au international transport des marchandises

Dangereuses par voie de Navigation intérieure

ADR Accord européen relatif au international transport des marchandises

Dangereuses par Route

ANSI American National Standards Institute

ASTM American Society of Testing and Materials (US)

ATE Acute Toxic Estimate

AwSv Regulation regarding the storage of substances

BCF Bioconcentration Factor

CAS Chemical Abstract Service

CLP Regulation on Classification, Labeling and Packaging of Substances and Mixtures

CMR Cancerogenic Mutagenic Reprotoxic

DIN German Institute for Standards

DNEL Derived No-Effect Level

EC...Effect Concentration...%

EWC European Waste Catalogue

IATA International Air Transport Association

IBC Intermediate Bulk Container

ICAO International Civil Aviation Organization

IMDG International Maritime Dangerous Goods

IMO International Maritime Organization

ISO International Organization for Standardization

IUPAC International Union of Pure and Applied Chemistry

LOAEL Lowest Observable Adverse Effect Level

LC... Lethal Concentration, ...%

LD... Lethal Dose, ...%

MARPOL International Convention for the Prevention of Pollution From Ships

NOAEL No Observed Adverse Effect Level

NOEL/NOEC No Observed Effect Level/Concentration

OECD Organization for Economic Co-operation and Development

PBT persistent, bioaccumulative, toxic

PNEC Predicted No-Effect Concentration

REACH Registration, Evaluation, Authorization and Restriction of Chemicals

RID Règlement concernant le transport International ferroviaire de

merchandises Dangereuses

STOT Specific Target Organ Toxicity

TRGS Technical Regulations for Gefahrstoffe

vPvB very Persistent, very Bioaccumulative

WGK Wassergefährdungsklasse

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