# Component B, PA 2700 Coating

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

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| | 1.1 | Product identification<br>Product form: Mixture<br>Product code: Dutch Resin Component B, PA 2700 Coating<br>Product group: PU Flooring | | | |
| | 1,2 | Relevant identified use<br>Main usage category<br>Industrial/Professional use spec.<br>Use of the substance or mixture; Forms of use that are advised against | | Industrial use<br>For professional use only<br>Flooring<br>No additional information available | |
| | 1.3 | Dutch Resin Group<br>P.O. Box 1074<br>7301 BH Apeldoorn<br>T +31 (0)55 312 44 65<br>info@dutchresin.nl | | Visiting address<br>Gladsaxe 19<br>Apeldoorn | |
| | 1.4 | Emergency number: T +31 (0)55 312 44 65<br>This number is only available during office hours. | | | |
| | | Land | Official advisory body | Address | Emergency number |
| | | NETHERLANDS | National Poisons Information Center.<br><br>University Medical Center Utrecht,<br>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<br>3508 GA Utrecht | +31 30 274 88 88 |

## SECTION 2: Identification of hazards

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| | 2.1 | Classification of the substance or mixture |
| | | Acute toxicity, Inhalation, Category 4 (H332)<br>Skin sensitization, Sub-category 1B (H317)<br>Specific target organ toxicity (single exposure), Category 3 (H335)<br>Chronic hazard to the aquatic environment, Category 3 (H412)<br><br>Warning |

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| | 2.2 | Labeling elements |
| | | Hazardous ingredients that must be listed on the label<br>aliphatic polyisocyanate<br>Hazard statements:<br>H317 May cause an allergic skin reaction.<br>H332 Harmful if inhaled.<br>H335 May cause respiratory irritation.<br>H412 Harmful to aquatic organisms, with long-lasting effects.<br><br>Precautionary measures<br>P261 Avoid inhalation of dust/ smoke/ gas/ mist/ vapor/ spray.<br>P273 Avoid release into the environment.<br>P280 Wear protective gloves.<br>P304 + P340 + P312 AFTER INHALATION: Move the person to fresh air and ensure they can breathe easily. If<br>feeling unwell, consult a POISON CENTER/doctor.<br>P333 + P313 If skin irritation or rash occurs: consult a doctor.<br>P362 + P364 Remove and wash contaminated clothing before reuse.<br><br>Additional risk characteristics and labelling elements: EUH204<br>Contains isocyanates. May cause an allergic reaction.<br><br>  <br><br>Warning |
| | 2.3 | Other dangers |
| | | • Results of PBT and zPzB assessment<br>· PBT: Not usable.<br>· zPzB: Not usable. |

## SECTION 3: Composition and information on ingredients

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| | 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<br>REACH<br>registration number: 01-2119488934-20-0000<br>EC No.: 500-060-2 | <100 | Classification (1272/2008/EC): Acute Tox. 4 Inhalative H332 Skin Sens.<br>1 H317 STOT SE 3<br>H335 |
| | | hexamethylene-1,6-diisocyanate | CAS No.: 822-06-0<br>Index no.: 615-011-00-1<br>REACH<br>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<br>Inhalative H330 Skin Irrit. 2 H315<br>Eye<br>Irrit.2 H319 Resp.<br>Sens. 1 H334 Skin Sens.<br>1 H317 STOT SE 3<br>H335 Specific Limit<br>Concentrations (GHS):<br><br>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.<br>Candidate list of substances, great care regarding authorization<br>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

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| | 4.1 | Description of the first aid measures |
| | | General advice: Immediately remove, disinfect, and dispose of soiled or soaked clothing and shoes.<br><br>In case of inhalation: Move person to fresh air, keep warm, allow to rest; medical assistance is required if breathing difficulties occur.<br>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.<br>In case of skin reactions, consult a doctor.<br>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.<br>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

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| | 5.1 | Extinguishing equipment |
| | | Suitable extinguishing agents: Foam. AFFF. Water mist.<br>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.<br>Avoid inhaling smoke in the event of fire and/or explosion.<br>In the event of a fire in the immediate vicinity, increased pressure, risk of bursting.<br>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

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| | 6.1 | Personal precautions, protective equipment and emergency procedures |
| | | Put on safety clothing (see section 8). Ensure adequate airflow and ventilation.<br>Keep uninvolved persons at a distance |
| | 6.11 For | persons other than emergency services |

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| | | Protective equipment: Equip<br>cleaning staff with appropriate protection.<br>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 (CO2 generation!). Keep moist and leave outdoors in a safe place for several days.<br>The spilled area can be cleaned with the following recommended disinfection solution:<br><br>Disinfectant solution 1: 8-10% sodium carbonate and 2% liquid soap in water<br>Disinfectant solution 2: liquid/traditional soap (potassium soap with ~15% anionic surfactant): 20 ml; water: 700 ml; polyethylene glycol (PEG 400): 350 ml<br>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.<br>Ensure adequate ventilation and/or extraction in the workplace. Air extraction is required for spray application.<br>For solid products: Avoid dust generation and dust deposition.<br>The air limit values mentioned in Paragraph 8 must be respected.<br>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.<br>For products containing solvents: Protection against explosion required.<br>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.<br><br>Keep separate from food and beverages. Wash hands and use skin protection ointment before breaks and after finishing work. Keep work clothing separate.<br>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 |
| | | Respiratory protection Nose and mouth protection<br>is required in case of insufficient ventilation at the workplace and during injection molding. A fresh-air<br>mask is recommended,<br>or for short-term work, a combination filter A2-P2.<br><br>Further recommendations regarding respiratory protection can be found in the individual exposure scenarios in the appendix.<br>Use of this product is advised against in case of hypersensitivity of the respiratory tract and skin (asthma, chronic bronchitis, chronic skin diseases).<br>Hand protection Suitable<br>material for safety gloves; EN 374: Butyl rubber - IIR:<br>thickness >=0.5mm; Breakthrough time >=480min.<br>Fluororubber - FKM: thickness >=0.4mm; Breakthrough time >=480min.<br>Advice: remove contaminated gloves.<br>Eye protection Wear eye/<br>face protection.<br>Skin and body protection Wear<br>suitable protective clothing. |
| SECTION 9: Physical and chemical properties | | |
| | 9.1 | Information about basic physical and chemical properties |
| | | Appearance: liquid Color:<br>colorless to yellowish Odor: almost<br>odorless Odor threshold:<br>not established pH: not measurable<br>Delta point: approx. -42<br>°C ISO 3016 Boiling point/boiling range: n/<br>a, decomposition DIN 53171 Flash point: approx. 195 °C at 1,013<br>mbar DIN EN ISO 2719 Evaporation rate: not established Flammability<br>(solid, gas): Not applicable Final ignition number:<br>Not applicable Vapor pressure: approx. 5 hPa at 20 °C EC A4<br>approx. 10 hPa at 50 °C EC A4 approx.<br>11 hPa at 55 °C EC A4 Vapor density: not established<br>Density: approx. 1.15 g/cm³ at 20 °C<br>DIN 51757 Miscellaneousness with<br>water: not miscible at 15 °C Surface<br>tension: not established Partition coefficient (nÿoctanol/water):<br>not established Autoignition temperature: Not applicable Ignition<br>temperature: approx. 430 °C DIN 51794<br>Decomposition temperature: not determined Viscosity, dynamic: approx.<br>1,004 mPa.s at 20 °C DIN 53019 Explosive properties: not<br>determined Dust explosion class: Not applicable Oxidizing<br>properties: not determined |

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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, CO2 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 |
| | | Acute toxicity, oral<br>LD50 Rat: > 2,000 mg/kg<br>Toxicological studies on a comparable product.<br>Acute toxicity, dermal<br>Hydrophilic, aliphatic polyisocyanate<br>LD50 Rat, male/female: > 2,000 mg/kg<br>Method: OECD 402 Guideline test<br>Investigating a similar product.<br>Acute toxicity, inhalatory<br>LC50 Rat, female: 390 mg/m³, 4 h Test atmosphere: dust/mist<br>Method: OECD 403 Guideline test<br>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.<br><br>Toxicological studies on a comparable product.<br>Converted acute toxicity estimate 1.5 mg/l<br>Test atmosphere: dust/mist Method: Expert judgment Primary skin irritant effect<br>Species: Rabbit<br>Result: mildly irritating<br>Classification: No skin irritation<br>Toxicological studies on a comparable product.<br>Acute mucosal irritation<br>Species: Rabbit<br>Result: mildly irritating<br>Classification: No eye irritation |

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| | | Toxicological studies on a comparable product.<br>Sensitization Skin hypersensitivity according to Magnusson/Kligmann (maximization test): Species:<br>Guinea pig Result: positive<br>Classification: May cause sensitization by contact with skin.<br>Method: OECD 406 guideline test<br>Toxicological studies on a similar product<br>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.<br>Subacute, subchronic, and prolonged toxicity<br>No data available.<br>Carcinogenicity<br>Hydrophilic, aliphatic polyisocyanate<br>No data available.<br>Reproductive toxicity/fertility<br>Hydrophilic, aliphatic polyisocyanate<br>No data available.<br>Reproductive toxicity/Teratogenicity<br>No data available.<br>Genotoxicity in vitro<br>Test type: Salmonella/microsome test (Ames test)<br>Result: No indications of mutagenic influence.<br>Method: OECD Test Guideline 471<br>Toxicological studies on a comparable product.<br>Genotoxicity in vivo<br>No data available.<br>SOT assessment – single exposure<br>May cause irritation of the respiratory tract.<br>Investigating a similar product.<br>SOT assessment – repeated exposure<br>Hydrophilic, aliphatic polyisocyanate<br>Based on available data; the classification criteria have not been met.<br>Aspiration toxicity<br>Hydrophilic, aliphatic polyisocyanate<br>Based on available data; the classification criteria have not been met.<br>Further instructions<br>Special properties/reactions: With prolonged exposure, there is a risk of concentration-dependent irritation of the eyes, nose, throat, and respiratory tract.<br>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 |
| | | Ecotoxicological studies on the product are not available.<br>Do not allow to penetrate surface water, wastewater, or soil.<br>The following lists the ecotoxicological data associated with the components, insofar as they are available to us. |
| | 12.2 | Persistence and degradability |
| | | Biodegradability |

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| | | Biodegradation: 2%, 28 days, i.e. not easily biodegradable<br>Method: OECD test guideline 301 F<br>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 CO2 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.<br>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.<br>No discharge via wastewater. |
| SECTION 14: Information regarding transport | | |
| | | Land transport (ADR / RID / GGVSEB |
| | 14.1 UN number | |
| | | ADR-UN Number: Non-dangerous goods<br>IATA-UN Number: Non-dangerous goods<br>IMDG-UN Number: Non-hazardous goods |
| | 14.2 | Proper shipping name in accordance with the UN Model Regulations: |
| | | ADR Shipping Name: Non-dangerous goods<br><br>IATA Shipping Name: Non-dangerous goods<br>IMDG-Shipping Name: Non-hazardous goods |
| | 14.3 Transport hazard class(es): | |
| | | ADR Class: Non-dangerous goods<br>ADR - Hazard identification number: Non-dangerous goods<br>IATA Class: Non-dangerous goods<br>IATA Label: Non-dangerous goods<br>IMDG Class: Non-hazardous goods<br>IMDG Class: Non-hazardous goods |

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| | 14.4 Packaging group: | |
| | | ADR-Packing Group: Non-hazardous goods<br>IATA Packing group: Non-dangerous goods<br>IMDG-Packing group: Non-hazardous goods |
| | 14.5 Environmental hazards: | |
| | | ADR Environmental pollutant: Non-hazardous goods<br>IMDG-Marine pollutant: Non-hazardous goods |
| | 14.6 Special precautions for the user: | |
| | | See sections 6-8.<br>Further instructions: No dangerous goods to transport.<br>Protect against moisture.<br>Heat sensitive from +50 °C. Cold sensitive from +10 °C.<br>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.<br><br>Not applicable<br>Water pollution class (Germany)<br>1 slightly water polluting<br>(according to Annex 4 VwVwS)<br>All existing national regulations for the handling of isocyanates must be observed CAS No.:<br>2536-05-2, EC No.: 219-799-4<br>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).<br>H302 Harmful if swallowed.<br>H315 Causes skin irritation.<br>H317 May cause an allergic skin reaction.<br>H319 Causes serious eye irritation.<br>H330 Fatal if inhaled.<br>H332 Harmful if inhaled.<br>H334 May cause allergy or asthma symptoms or difficulty breathing if inhaled.<br><br>H335 May cause respiratory irritation.<br>H412 Harmful to aquatic organisms, with long-lasting effects.<br>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<br>also this Safety Data Sheet). Therefore, these products may only be used in industrial or professional<br>applications. They are not suitable for DIY use. |

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 merchandises
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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