Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **PFAS000X**
Product name **PRYMER FAST 500**

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

Intended use **Anti-dust and anti-damp product for substrates, solvent-free.**

Identified Uses	Industrial	Professional	Consumer
Use in coatings	✓	✓	-
Uses Advised Against			
Use of the consumer processes that provide for the use of incompatible substances See section 10			

1.3. Details of the supplier of the safety data sheet

Name **CHIMIVER PANSERI S.P.A.**
Full address **Via Bergamo 1401**
District and Country **24030 PONTIDA (BG)**
ITALIA
Tel. +39 035 795031
Fax +39 035 795556

e-mail address of the competent person responsible for the Safety Data Sheet **msds@chimiver.com**

1.4. Emergency telephone number

For urgent inquiries refer to **Poison centers:**
Cyprus-1401

Denmark- Danish Poison Center (Giftlinjen): +45 8212 1212

Estonia- Estonian Poisoning Information 16662

Finland- Tel. 09 471 977 Or +358 09 4711

Latvia- 1. Valsts ugunsdzēsības un glābšanas dienests, phone number: 112.
2. Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs, Hipokrāta 2, Rīga, Latvija, LV-1038, phone number +371 67042473

Lithuania- Apsinuodijimų informacijos biuras"visto parą: tel. +370 (5) 236 2052

Malta- 112

Belgium
Belgian Poisono Centre number: 070 245 245
Available 24h/24

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Carcinogenicity, category 2	H351	Suspected of causing cancer.
Acute toxicity, category 4	H332	Harmful if inhaled.

SECTION 2. Hazards identification ... / >>

Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
Respiratory sensitization, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: Danger

Hazard statements:

H351	Suspected of causing cancer.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.

Precautionary statements:

P260	Do not breathe dust / fume / gas / mist / vapours / spray.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P201	Obtain special instructions before use.

Contains: diphenylmethane-4,4'-diisocyanate
4,4'-Methylenediphenyl diisocyanate, oligomers

As from 24 August 2023 adequate training is required before industrial or professional use.

VOC (Directive 2004/42/EC) :
Binding primers.
VOC given in g/litre of product in a ready-to-use condition : 0,00
Limit value: 750,00

Subjects with asthma, eczema or skin problems should avoid contact, including skin contact, with this product.

This product should not be used in low ventilation conditions, unless a mask is used
Protective with a suitable antigas filter (for example of type A1 compliant with the EN 14387 standard)

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
4,4'-Methylenediphenyl diisocyanate, oligomers		
INDEX	55 ≤ x < 75	**Carc. 2 H351, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Resp. Sens. 1 H334, Skin Sens. 1 H317**
EC *500-040-3*		**ATE Inhalation mists/powders: 1,5 mg/l, ATE Inhalation vapours: 11 mg/l**
CAS *25686-28-6*		
REACH Reg. *01-2119457013-49-0001*		
diphenylmethane-4,4'-diisocyanate		
INDEX *615-005-00-9*	20 ≤ x < 30	**Carc. 2 H351, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1 H334, Skin Sens. 1 H317, Classification note according to Annex VI to the CLP Regulation: 2, C**
EC *202-966-0*		**Skin Irrit. 2 H315: ≥ 5%, Eye Irrit. 2 H319: ≥ 5%, Resp. Sens. 1 H334: ≥ 0,1%, STOT SE 3 H335: ≥ 5%**
CAS *101-68-8*		**LC50 Inhalation mists/powders: 1,5 mg/l/4h**
REACH Reg. *01-2119457014-47-XXXX*		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

In case of doubt or in the presence of symptoms contact a doctor and show him this document.
In case of more severe symptoms, ask for immediate medical aid.
EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Take off immediately all contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice/attention. Avoid further contact with contaminated clothing.
INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention.
INHALATION: Remove victim to fresh air, away from the accident scene. In the event of respiratory symptoms (coughing, wheezing, breathing difficulty, asthma) keep the victim in a comfortable position for breathing. If necessary administer oxygen. If the subject stops breathing, administer artificial respiration. Get medical advice/attention.

Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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

Specific information on symptoms and effects caused by the product are unknown.

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

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

IF exposed or concerned: Get medical advice / attention.

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

4,4'-Methylenediphenyl diisocyanate, oligomers
Appropriate cleaning procedures: The composition of liquid decontaminants is (percentages by weight or by volume):
Decontaminant 1:
- soda ash: 5 - 10%
- liquid detergent: 0.2 - 2%
- water: up to 100%.
Decontaminant 2:
- concentrated ammonia solution: 3 - 8%
- liquid detergent: 0.2 - 2%
- water: up to 100%.
Scavenger 1 reacts more slowly with diisocyanates but is more environmentally friendly than scavenger 2.
Decontaminant 2 contains ammonia. Ammonia has health risks.

Remove mechanically; cover the residues with damp absorbent material (eg sawdust, binders for chemical reactants based on hydrated calcium silicate, sand). After approx. 1 hour collect in a waste container. Do not close it (carbon dioxide develops). Keep in a humid place and leave several days outdoors, in a controlled place. The spill area can be decontaminated using the following recommended decontamination solution: Decontamination solution 1: 8-10% sodium carbonate and 2% liquid soap in water Decontamination solution 2: liquid / Marseille soap (soap with potassium and with ~ 15% anionic surfactants): 20 ml; water: 700 ml; polyethylene glycol (PEG 400): 350 ml Decontamination Medium 3: 30% commercial detergent (containing monoethanolamine 70% water

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

The general conditions of use are better specified in the annex according to REACH Regulation (EC) no. 1907/2006.
Ensure sufficient air exchange and / or adequate suction in the workplace. Suction is required if processing is carried out by spraying.
In case of solid products: Avoid development and deposit of dust.

In workplaces, where aerosols and / or diisocyanate vapors may be produced in relatively high concentrations, it is necessary to prevent the occupational exposure limit value from being exceeded by localized air extraction. The movement of air must take place in the direction of away from people.
In case of products containing solvents: It is necessary to provide for anti-explosive measures.
Observe the personal protection measures described in section 8. Observe the necessary precautionary measures when handling isocyanates. Avoid contact with skin and eyes as well as inhalation of vapors.
Keep away from food. Before breaks and at the end of work, wash your hands and apply a dermoprotective cream. Store work clothes separately. Remove all contaminated clothing immediately

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

AUS	Österreich	Gesamte Rechtsvorschrift für Grenzwerteverordnung 2021 , Fassung vom 14.05.2023
BEL	Belgique	Liste de valeurs limites d'exposition aux agents chimiques, livre VI du code du bien-être au travail
CZE	Česká Republika	NAŘÍZENÍ VLÁDY ze dne 10. května 2021, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci
DEU	Deutschland	Forschungsgemeinschaft MAK- und BAT-Werte-Liste 2022 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe Mitteilung 58
DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019
ESP	España	Límites de exposición profesional para agentes químicos en España 2023
EST	Eesti	Ohtlike kemikaalide ja neid sisaldavate materjalide kasutamise töötervishoiu ja tööohutuse nõuded ning töökeskkonna keemiliste ohutegurite piirnormid [RT I, 21.12.2022, 14]
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en FranceDécret n° 2021-1849 du 28 décembre 2021
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ''σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιγόνους παράγοντες κατά την εργασία''»
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
IRL	Éire	2020 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2015) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019)
LTU	Lietuva	Jsakymas dėl lietuvos higienos normos hn 23:2011 „cheminių medžiagų profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai“ patvirtinimo
NOR	Norge	Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
RUS	Россия	ПОСТАНОВЛЕНИЕ от 13 февраля 2018 г. N 25 ОБ УТВЕРЖДЕНИИ ГИГИЕНИЧЕСКИХ НОРМАТИВОВ ГН 2.2.5.3532-18 "ПРЕДЕЛЬНО ДОПУСТИМЫЕ КОНЦЕНТРАЦИИ (ПДК)

SECTION 8. Exposure controls/personal protection ... / >>

		ВРЕДНЫХ ВЕЩЕСТВ В ВОЗДУХЕ РАБОЧЕЙ ЗОНЫ"
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
TUR	Türkiye	Kimyasal Maddelerle Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733; 20.10.2023 / 32345.
	TLV-ACGIH	ACGIH 2023

diphenylmethane-4,4'-diisocyanate

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	0,05	0,005	0,1	0,01	STEL:5(Mow), Häufigkeit/Sch:8x
VLEP	BEL	0,052	0,005			
TLV	CZE	0,05		0,1		
AGW	DEU	0,05		0,05		INHAL 11
AGW	DEU	0,05		0,05		SKIN 11
MAK	DEU	0,05		0,05 (C)		INHAL C = 0,1 mg/m3
MAK	DEU	0,05		0,05		SKIN C = 0,1 mg/m3
TLV	DNK	0,05	0,005			
VLA	ESP	0,052	0,005			
TLV	EST	0,05	0,005	0,1 (C)	0,01 (C)	
VLEP	FRA	0,1	0,01	0,2	0,02	
TLV	GRC	0,2		0,2		
AK	HUN	0,05	0,005	0,05	0,005	
OELV	IRL	0,005		0,07		As NCO
RD	LTU	0,05	0,005	0,1 (C)	0,01 (C)	
TLV	NOR	0,05	0,005			
NDS/NDSCh	POL	0,03		0,09		
TLV	ROU			0,15		
ПДК	RUS			0,5		п + а, А
NGV/KGV	SWE	0,03	0,002	0,05	0,005	STEL: 5 min
NPEL	SVK	0,03	0,002			
MV	SVN	0,05		0,05		INHAL
MV	SVN		0,005		0,005	SKIN
ESD	TUR	0,05	0,005			
TLV-ACGIH		0,051	0,005			

Predicted no-effect concentration - PNEC

Normal value in fresh water	3,7	µg/L
Normal value in marine water	37	µg/L
Normal value for fresh water sediment	11,7	mg/kg
Normal value for marine water sediment	1,17	mg/kg
Normal value for water, intermittent release	10	mg/l
Normal value for marine water, intermittent release	370	ng/L
Normal value of STP microorganisms	NPI	
Normal value for the terrestrial compartment	2,33	mg/kg
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		NPI				
Inhalation		NPI	25,0 µg/m³	NPI	100,0 µg/m³	NPI	50,0 µg/m³	NPI
Skin		NPI	MED	NPI	MED	NPI	MED	NPI

SECTION 8. Exposure controls/personal protection ... / >>

4,4'-Methylenediphenyl diisocyanate, oligomers

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH			0,005			

Predicted no-effect concentration - PNEC

Normal value in fresh water	3,7	µg/L
Normal value in marine water	37	µg/L
Normal value for fresh water sediment	11,7	mg/kg
Normal value for marine water sediment	1,17	mg/kg
Normal value for water, intermittent release	0,037	mg/l
Normal value for marine water, intermittent release	370	ng/L
Normal value of STP microorganisms	NPI	
Normal value for the terrestrial compartment	2,33	mg/kg
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		NPI				
Inhalation		NPI	25,0 µg/m³	NPI	100,0 µg/m³	NPI	50,0 µg/m³	NPI
Skin		NPI	MED	NPI	MED	NPI	MED	NPI

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (see standard EN ISO 16321).
RESPIRATORY PROTECTION
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Hands protection
Suitable materials for protective gloves; EN 374:
Nitrile rubber - NBR: thickness> = 0.35mm; Time of onset> = 480min.
Butile rubber - iir: thickness> = 0.5mm; Time of onset> = 480min.
Fluorinated rubber - FKM: thickness> = 0.4mm; Time of onset> = 480min.
Polyvinilcloride - PVC: thickness> = 0.5mm; Time of onset> = 480min.
Recommendation: properly dispose of contaminated gloves.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties		Value		Information
Appearance		liquid		
Colour		Amber		
Odour		typical		
Melting point / freezing point		not available		Reason for missing data:Date not available
Initial boiling point		300	°C	Method:Bibliography relating to the most relevant component of the preparation Substance:diphenylmethane-4,4'-diisocyanate Initial boiling point: 300,0 °C
Flammability		not available		Reason for missing data:Date not available
Lower explosive limit		not available		Reason for missing data:Date not available
Upper explosive limit		not available		Reason for missing data:Date not available
Flash point	>	211	°C	Method:Internal evaluation, The determination of the flash point of the products is carried out through the evaluation of the components relevant to this category of danger, the value of the flash point corresponds to the lowest value among these components that follow the determination of the flash point via EN ISO 2719 Substance:diphenylmethane-4,4'-diisocyanate Flash point: 211,0 °C
Auto-ignition temperature		not available		Reason for missing data:Date not available
Decomposition temperature		not available		Reason for missing data:Date not available
pH		not available		Method:Bibliography relating to the most relevant component of the preparation Reason for missing data:the mixture reacts with water
Kinematic viscosity		>20,5 mm2/sec (40°C)		Method:literature
Solubility		not available		Reason for missing data:substance/mixture reacts with water
Partition coefficient: n-octanol/water		not available		Reason for missing data:Date not available
Vapour pressure		0,001	Pa	Method:Bibliography relating to the most relevant component of the preparation Substance:4,4'-Methylenediphenyl diisocyanate, oligomers Vapour pressure: 0,001 Pa
Density and/or relative density		1,16	kg/l	Method:UNI EN ISO 2811-1
Relative vapour density		not available		Reason for missing data:Date not available
Particle characteristics		not applicable		

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU)
Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

diphenylmethane-4,4'-diisocyanate
Decomposes at 274°C/525°F.

SECTION 10. Stability and reactivity ... / >>

With water it develops carbon dioxide and forms an insoluble solid polymer and consequently any wet material recovered must be stored in open containers.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

diphenylmethane-4,4'-diisocyanate
May react dangerously with: alcohols,amines,ammonia,sodium hydroxide,acids,water,strong acids,strong bases.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

diphenylmethane-4,4'-diisocyanate
May develop: nitric oxide,carbon oxides,hydrogen cyanide.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

diphenylmethane-4,4'-diisocyanate
WORKERS: inhalation; contact with the skin.
POPULATION: inhalation of ambient air; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

diphenylmethane-4,4'-diisocyanate
Causes symptoms of irritation of the eye mucous membranes, upper respiratory and digestive tract and also to the skin; lung irritation of the bronchitis type (chest pains, cough, asthmatic wheezing), neurological symptoms (dizziness, balance disorders, headaches and consciousness disturbances). In severe cases, may give rise to delayed pulmonary edema (INRS, 2009). May cause hypersensitivity pneumonia which, in the event of continuous exposure, may progress to interstitial fibrosis (INRS, 2009).

Interactive effects

diphenylmethane-4,4'-diisocyanate
Cross sensitisations with other isocyanates are possible, in particular with TDI (toluene diisocyanate).

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	1,74 mg/l
ATE (Inhalation - vapours) of the mixture:	16,95 mg/l
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

diphenylmethane-4,4'-diisocyanate

LD50 (Dermal):	> 9400 mg/kg Coniglio - Fonte: OECD 402
LD50 (Oral):	> 10000 mg/kg Linee Guida 401 per il Test dell'OECD
LC50 (Inhalation mists/powders):	1,5 mg/l/4h

SECTION 11. Toxicological information ... / >>

LC50 (Inhalation vapours): 118 mg/l/3 weeks Linee Guida 474 per il Test dell'OECD

4,4'-Methylenediphenyl diisocyanate, oligomers
LD50 (Dermal): > 9400 mg/kg Rabbit
LD50 (Oral): 2000 mg/kg (rat)

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin
Sensitising for the respiratory system

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Suspected of causing cancer

diphenylmethane-4,4'-diisocyanate
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

May cause respiratory irritation

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class Viscosity: >20,5 mm2/sec (40°C)

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.
Other information
Particular characteristics / effects: In the case of overexposure there is a danger, depending on the concentration, of irritation of the eyes, nose, throat and respiratory tract. Possible delayed appearance of disorders and development of a form of hypersensitivity (respiratory disorders, cough, asthma). Hypersensitive people may experience these effects even at low concentrations of isocyanate, including concentrations below the occupational exposure limit. In case of prolonged contact with the skin, irritating and dehydrating effects are possible.

Industrial cleaning with polar aprotic solvents (according to the IUPAC definition) can lead to the formation of primary (dangerous) aromatic amines (> 0.1%). Primary aromatic amines are chemicals considered to be potentially carcinogenic to humans, based on animal testing. Some of these chemicals are known to be carcinogenic to humans. Compliance with the control measures recommended in the exposure scenario should protect against such effects.
In animal experiments and other tests it was found that skin contact with diisocyanates
it could play a role in isocyanate sensitization and pathway reactions
respiratory.

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

diphenylmethane-4,4'-diisocyanate	
LC50 - for Fish	> 1000 mg/l/96h Method OECD 203
EC50 - for Algae / Aquatic Plants	1640 mg/l/72h Method OECD 201
Chronic NOEC for Crustacea	10 mg/l
4,4'-Methylenediphenyl diisocyanate, oligomers	
LC50 - for Fish	> 1000 mg/l/96h OECD 203 Danio rerio
EC50 - for Algae / Aquatic Plants	1640 mg/l/72h Desmodesmus subspicatus

12.2. Persistence and degradability

diphenylmethane-4,4'-diisocyanate	
Solubility in water	30 g/l
NOT rapidly degradable	
4,4'-Methylenediphenyl diisocyanate, oligomers	
Solubility in water	30 g/l
NOT rapidly degradable	

12.3. Bioaccumulative potential

diphenylmethane-4,4'-diisocyanate	
Partition coefficient: n-octanol/water	4,51
BCF	200 -
4,4'-Methylenediphenyl diisocyanate, oligomers	
Partition coefficient: n-octanol/water	4,52

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

not applicable

14.2. UN proper shipping name

not applicable

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

not applicable

14.6. Special precautions for user

not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product		
Point	3	
Contained substance		
Point	56-75	diphenylmethane-4,4'-diisocyanate REACH Reg.: 01-2119457014-47-XXXX
Point	74	DIISOCYANATES

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

SECTION 15. Regulatory information ... / >>

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

VOC (Directive 2004/42/EC) :
Binding primers.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Carc. 2	Carcinogenicity, category 2
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Resp. Sens. 1	Respiratory sensitization, category 1
Skin Sens. 1	Skin sensitization, category 1
H351	Suspected of causing cancer.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds

SECTION 16. Other information ... / >>

- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
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9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
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- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 04 / 06 / 07 / 08 / 09 / 10 / 11 / 12 / 13 / 15.