

Taka srl

2308.28P - HMPUR

Revision nr.6
Dated 08/02/2022
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EN

Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878

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

1.1. Product identifier

Code: 2308.28P
Product name: HMPUR
Chemical name and synonym: Reactive polyurethane (PUR)

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

Intended use: Industrial use adhesive

Identified Uses	Industrial	Professional	Consumer
Adhesives and Sealants, industrial use	ERC: 5. PROC: 10, 8a, 8b.	-	-

1.3. Details of the supplier of the safety data sheet

Name: Taka srl
Full address: via dell'industria 4
District and Country: 36060 Pianezze (VI) Italy
Tel.: 0424 411166
Fax: 0424 411727
e-mail address of the competent person responsible for the Safety Data Sheet: msds@taka.it/hse@taka.it

1.4. Emergency telephone number

For urgent inquiries refer to: UK - NHS, TEL.111

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:	Hazard Code	Description
Carcinogenicity, category 2	H351	Suspected of causing cancer.
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.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.

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SECTION 2. Hazards identification ... / >>

EUH204 Contains isocyanates. May produce an allergic reaction.

Precautionary statements:

P261 Avoid breathing dust / fume / gas / mist / vapours / spray.
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER / doctor
P362+P364 Take off contaminated clothing and wash it before reuse.

Contains: 4,4'-Methylenediphenyl Diisocyanate

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

2.3. Other hazards

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

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

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
4,4'-Methylenediphenyl Diisocyanate		
CAS	101-68-8	$1 \leq x < 3$
EC	202-966-0	
INDEX	615-005-00-9	
REACH Reg.	01-2119457014-47	

**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, EUH204, Classification note according to Annex VI to the CLP Regulation: 2, D Skin Irrit. 2 H315: \geq 5%, Eye Irrit. 2 H319: \geq 5%, Resp. Sens. 1 H334: \geq 0,1%, STOT SE 3 H335: \geq 5%
STA Inhalation mists/powders: 1,5 mg/l**

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

If inhaled:

If inhaled immediately bring the interested person in the open air. If breathing ceases practice artificial respiration. Call a doctor immediately.

In case of eye contact:

Remove any contact lenses. Rinse the eyes for 10 minutes with running water, keep well opened the eyelids. Consult a doctor.

In case of contact with the skin

In case of contact with the skin, preferably wash with a detergent containing polyethylene glycol or with plenty of water and soap. Consult a doctor if a skin reaction develops. Wash work clothes before using them again.

If swallowed: DO NOT induce vomiting. If the patient is conscious, rinse the mouth with water and encourage the expulsion of the rinse. Consult a doctor

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

The listed symptoms refer to those caused by 4,4'-methylenediphenyl diisocyanate

Eyes: lacrimation, conjunctivitis

Skin: possible allergic reaction, the absorption of isocyanates can cause sensitization of the respiratory tract. In case of prolonged contact rashes and damage to the skin may occur.

Inhalation: respiratory tract irritation, pulmonary function disorder (changes in breathing rate), asthmatic attacks, rhinitis. Subsequent to

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SECTION 4. First aid measures ... / >>

sensitization to isocyanates, asthmatic symptoms may already occur at low product concentrations.

Ingestion: the effects of digestive absorption occur only after the ingestion of very high doses of the product; there may be irritation or damage to the mucous membranes.

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

The patient for whom medical intervention has been requested should be monitored for at least 48 h in case of intense exposure to the product

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING MEDIA

The extinguishing media are the traditional ones: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING MEDIA

High pressure water jet

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF A FIRE

Avoid breathing the products of combustion. For thermal decomposition or in case of fire, gases and vapors potentially harmful to health can be released such as: carbon oxides, nitrogen oxides, trace hydrogen.

5.3. Advice for firefighters

GENERAL INFORMATION

Cool the containers with jets of water to avoid product decomposition and the development of substances potentially hazardous for health.

Always wear complete fire protection equipment. Collect the extinguishing water that must not be discharged into the sewers. Dispose of the contaminated water used for extinguishing and the residue of the fire according to current regulations.

EQUIPMENT

Normal fire fighting clothing, such as an open circuit compressed air breathing apparatus (EN 137), flame retardant suit (EN469), flame retardant gloves (EN 659) and boots for the Fire Brigade (HO A29 or A30).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 for those who do not intervene directly

move away from the area where the release occurred. Keep personnel inadequately trained for emergencies at a distance

6.1.2 For those who intervene directly

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

Ensure adequate ventilation. Allow the product to solidify, then remove it mechanically

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.

7.2. Conditions for safe storage, including any incompatibilities

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SECTION 7. Handling and storage ... / >>

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.

Storage class TRGS 510 (Germany): 11

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 17.06.2021
BEL	Belgique	Liste de valeurs limites d'exposition aux agents chimiques, livre VI du code du bien-être au travail
DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
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 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
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)
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
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
GBR	United Kingdom TLV-ACGIH	EH40/2005 Workplace exposure limits (Fourth Edition 2020) ACGIH 2020

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

4,4'-Methylenediphenyl 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	NIOSH 5521 (sampling)
VLEP	BEL	0,052	0,005			NIOSH 5521 (sampling)
AGW	DEU	0,05		0,1 (C)		NIOSH 5521 (sampling)
MAK	DEU	0,05		0,1 (C)		NIOSH 5521 (sampling)
TLV	DNK	0,051	0,005	0,1	0,01	NIOSH 5521 (sampling)
VLA	ESP	0,052	0,005			NIOSH 5521 (sampling)
VLEP	FRA	0,1	0,01	0,2	0,02	NIOSH 5521 (sampling)
AK	HUN	0,05		0,05		NIOSH 5521 (sampling)
OELV	IRL	0,005				NIOSH 5521 (sampling)
TLV	NOR	0,05	0,005			NIOSH 5521 (sampling)
NDS/NDSch	POL	0,03		0,09 (C)		NIOSH 5521 (sampling)
TLV	ROU			0,15 (C)		NIOSH 5521 (sampling)
NGV/KGV	SWE	0,03	0,002	0,05 (C)	0,005 (C)	NIOSH 5521 (sampling)
WEL	GBR	0,02		0,07		all isocyanates (NCO groups)
TLV-ACGIH		0,051	0,005			NIOSH 5521 (sampling)

Predicted no-effect concentration - PNEC

Normal value in fresh water	1	mg/l
Normal value in marine water	0,1	mg/l
Normal value for water, intermittent release	10	mg/l
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	1	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		20 mg/kg bw/d						
Inhalation	0,05 mg/m3	0,05 mg/m3	0,025 mg/m3	0,025 mg/m3	0,1 mg/m3	0,1 mg/m3	0,05 mg/m3	0,05 mg/m3
Skin	17,2 mg/kg bw/d	25 mg/kg bw/d			28,7 mg/kg bw/d	50 mg/kg bw/d		

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.

8.2. Exposure controls

With product temperatures above 40 ° C: Provide an extraction ventilation system in the points where emissions occur, or Ensure ventilation / extraction at the material transfer points and other openings, or handle in a extractor hood or with ventilation / extraction, or demonstrate by monitoring the workplace, that the exposures are lower than the DNEL values relevant for operators for acute and long-term cases.

Avoid contact with skin and clothing. In case of contact with skin, immediately remove contaminated clothing and wash immediately with plenty of water. Provide adequate information, instructions, and training for operators.

The personal protective equipment bears the CE marking which certifies their compliance with current regulations. There are no limitations on the use of the dangerous substance in the mixture (480 minutes a day, 5 days a week).

RESPIRATORY TRACT PROTECTION

In an emergency (unintentional release or exceeding the occupational concentration limits, DNEL) wear a mask with filter A combined with a filter P2.

HAND PROTECTION

the information shown is taken from the safety data sheet of the supplier of Difenilmentano4,4'-diisocyanate..

Use chemical resistant gloves classified according to standard 374: protective gloves against chemicals and micro-organisms. Examples of preferred barrier material for gloves include: Butyl rubber. Polyethylene. Chlorinated polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Viton. Neoprene. Polyvinyl chloride ("PVC" or "vinyl"). Nitrile / butadiene rubber ("nitrile" or "NBR"). When prolonged or frequently repeated contact is expected, the use of gloves with protection class 5 or higher is recommended (infiltration time greater than 240 minutes according to EN 374). When only brief contact is expected, the use of gloves with protection class 3 or higher is recommended (infiltration time greater than 60 minutes according to EN 374). The thickness of the glove alone is not a good indicator of the level of protection that it provides against a chemical, given that this level is also highly dependent on the specific composition of the fabric with which the glove was made. The thickness must, depending on the model and type of fabric, generally be greater than 0.35 mm in order to offer sufficient protection for frequent and prolonged contact with the substance. As an exception to this general rule, it is known that multilayer laminated gloves can offer prolonged protection even if the thickness is less than 0.35 mm. Other fabrics less than 0.35 mm thick can offer sufficient protection only when short-term contact is expected. **WARNING:** for the choice of specific gloves for use in particular applications and the duration of use, other factors should be considered, such as (but not only): other chemical products handled, physical needs (protection from cuts / punctures, manual skills, thermal protection) possible reactions of the body to the glove material, and also the instructions / specifications provided by the glove manufacturer.

PROTECTION OF THE SKIN

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

Wear category II professional long-sleeved overalls and safety footwear (ref. Directive 89/686 / EEC and EN ISO 20344). Wash with soap and water after removing protective clothing

EYE PROTECTION

It is advisable to wear airtight protective glasses (ref. norma EN 166)

With reference to the integrated exposure scenario, data from measurements were used to evaluate the exposure of the contribution scenarios PROC 8a, 8b, 10. For PROC 8a: acute local inhalation exposure 0.058 mg / m³ (Risk characterization ratio-RCR: 0.582) chronic local inhalation exposure 0.029 mg / m³ (RCR: 0.582), combined RCR: 0.582. For PROC 8b: acute local exposure by inhalation 0.059 mg / m³ (RCR: 0.582) chronic local exposure by inhalation 0.029 mg / m³ (RCR: 0.582), combined RCR: 0.582. For PROC 10: acute local exposure by inhalation 0.034 mg / m³ (RCR: 0.344) chronic local exposure by inhalation 0.017mg / m³ (RCR: 0.344), combined RCR: 0.344. The EUSES model was used for the assessment of environmental exposure: fresh water compartment 0.00687 mg / l (RCR <0.00687 mg / l), seawater compartment 0.000543 mg / l (RCR <0.000543), soil compartment 0.239 (RCR <0.239). For the environmental contribution scenario ERC5, a daily quantity of 33333 kg of isocyanate was considered per site with a continuous release of 300 days / year. Controls of emissions in soil, water or air are not applicable (removal effectiveness 0%). Environmental factors not influenced by risk management include: River dilution factor: 10, Coastal area dilution factor: 100.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	solid	
Colour	white	
Odour	weak, characteristic	
Odour threshold	Not determined	Reason for missing data:there are no tests available
Melting point / freezing point	75 °C	Method:UNI EN 1238:2011 Ring & Ball Remark:softening point (+/- 3°C)
Initial boiling point	> 300 °C	Method:EU method A.2 Remark:sostanza: diisocianato di 4,4'-metilendifenile
Boiling range	Not determined	Reason for missing data:there are no tests available
Flammability	not flammable	Method:UN manual of Tests and Criteria - Section 33: Division 4.1 Test N.1: Test method for flammable solids
Lower explosive limit	Not applicable	Reason for missing data:solid mixture
Upper explosive limit	Not applicable	Reason for missing data:solid mixture
Flash point	Not applicable	Reason for missing data:solid mixture
Auto-ignition temperature	Not applicable	Reason for missing data:solid mixture
Decomposition temperature	Not applicable	Reason for missing data:not relevant for the purposes of hazard classification
pH	Not applicable	Reason for missing data:water insoluble mixture
Kinematic viscosity	Not determined	Reason for missing data:not relevant for the purposes of hazard classification
Dynamic viscosity	20000-30000 mPa.s	Temperature: 140 °C
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	Not applicable	Reason for missing data:solid mixture
Vapour pressure	0,00001kPa	
Density and/or relative density	1,1	Remark:Densità relativa
Relative vapour density	Not available	Reason for missing data:solid mixture
Particle characteristics		
Aggregation state	the mixture is not placed on the market in the form of a powder	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Explosive properties not applicable

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Oxidising properties not applicable
Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

the product reacts with water, protect it from moisture

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Information not available

10.4. Conditions to avoid

None in particular. however, follow the usual precautions with regard to chemicals.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

For thermal decomposition or in case of fire, decomposition products potentially harmful to health such as: carbon oxides, nitrogen oxides, hydrogen cyanide in traces can be released.

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

Information not available

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	> 5 mg/l
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

4,4'-Methylenediphenyl Diisocyanate

LD50 (Oral):	> 2000 mg/kg ECHA registration dossier
LD50 (Dermal):	> 9400 mg/kg ECHA registration dossier
LC50 (Inhalation vapours):	431 mg/m ³ (air) ECHA registration dossier
STA (Inhalation mists/powders):	1,5 mg/l

(figure used for calculation of the acute toxicity estimate of the mixture)

SKIN CORROSION / IRRITATION

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Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

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

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

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.

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

4,4'-Methylenediphenyl Diisocyanate	
LC50 - for Fish	> 100 mg/l/96h ECHA registration dossier
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h ECHA registration dossier
Chronic NOEC for Crustacea	10 mg/l ECHA registration dossier

12.2. Persistence and degradability

Information not available

12.3. Bioaccumulative potential

4,4'-Methylenediphenyl Diisocyanate	
Partition coefficient: n-octanol/water	4,52 22°C (ECHA registration dossier)

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

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SECTION 12. Ecological information ... / >>

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq 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, if possible. The residues of the product are to be considered special waste. The hazardousness of the waste that partially contains this product must be evaluated according to the laws in force.

Disposal must be entrusted to a company authorized to manage waste, in compliance with national and local regulations.

CER code: 08 04 09 * Waste adhesives and sealants containing organic solvents or other dangerous substances.

For completely reacted adhesive CER: 08 04 10 Waste adhesives and sealants other than those mentioned in 08 04 09 *

CONTAMINATED PACKAGING

Contaminated packaging must be sent for recovery or disposal in accordance 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/EC: None

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

Contained substance

Point	56-75	4,4'-Methylenediphenyl Diisocyanate REACH Reg.: 01-2119457014-47
Point	74	DIISOCYANATES

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SECTION 15. Regulatory information ... / >>

Regulation (EC) No. 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 \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

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.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 1: Low hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

4,4'-Methylenediphenyl Diisocyanate

This safety data sheet contains one or more Exposure Scenarios in an integrated form. Contents have been included in sections 1.2, 8, 9, 12, 15 and 16 of this safety data sheet.

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.
EUH204	Contains isocyanates. May produce an allergic reaction.

Use descriptor system:

ERC 5	Use at industrial site leading to inclusion into/onto article
PROC 10	Roller application or brushing
PROC 8a	Transfer of substance or mixture (charging and discharging) at non- dedicated facilities
PROC 8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals

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SECTION 16. Other information ... / >>

- 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 NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 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
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

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2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EU) 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
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
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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16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
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20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
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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 16. Other information ... / >>

Section 12.

SCALING INFORMATION

Environment: EUSES model; adjustment may be needed to define site-specific risk management measures. Health: use risk management measures reported in section 8.2. If other operational conditions / risk management measures will be adopted, users must ensure that the risks are equivalent to those reported in this SDS.

Changes to previous review:

The following sections were modified:

02 / 03 / 09 / 11 / 12.