

Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name PU HM Edilia

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

Intended use

Single-component, high-modulus polyurethane sealant for overpaintable joints

1.3 Details of the supplier of the safety data sheet

Company name	TORGGLER S.R.L.
Full address	Via Prati Nuovi 9
Town	Marlengo
Postal code	39020
Province	BZ
Country	Italy
Phone number	+39 0473 282400
Fax	+39 0473 282501
e-mail address of the competent person responsible for the Safety Data Sheet	reach@torggler.com

1.4 Emergency telephone number

For urgent inquiries refer to +39 348 662 70 93 (08.00 - 17.30)

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

Respiratory sensitization, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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2.2 Label elements

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

Hazard pictograms



Signal word

Danger

Hazard statements

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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Precautionary statements

P501	Dispose of contents and container in accordance with local and national regulations.
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Section 2

Precautionary statements

P102	Keep out of reach of children.
P261	Avoid breathing mist, spray, vapours.
P342+P311	If experiencing respiratory symptoms: Call a poison center/doctor.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P101	If medical advice is needed, have product container or label at hand.

Supplementary hazard statements

EUH204	Contains isocyanates. May produce an allergic reaction.
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Contains

Diphenylmethanediisocyanate, isomers and homologues

DIPHENYLMETHANE-4,4'-DIISOCYANATE

tris(nonylphenyl) phosphite

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

Additional information according to EC Regulation no. 552/2009 of 22 June 2009:

The use of this product may cause allergic reactions in people already sensitized to diisocyanates. People with asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation, unless a protective mask with a suitable gas filter (e.g. type A1 according to EN 14387) is used.

2.3 Other hazards**Endocrine disrupting properties**

tris(nonylphenyl) phosphite

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

Attention, in case of vaporization dangerous respirable droplets may form. As a precaution, do not breathe vapors or mists.

Section 3 Composition/information on ingredients**3.2 Mixtures****XYLENE (MIXTURE OF ISOMERS)**

Concentration	$2.67 \leq x < 5.1 \%$
CAS number	1330-20-7
EC number	215-535-7
INDEX number	601-022-00-9
Registration Number	01-2119488216-32-xxxx
Hazard classification	- Flam. Liq. 3; H226 - Asp. Tox. 1; H304 - Acute Tox. 4; H312 - Skin Irrit. 2; H315 - Eye Irrit. 2; H319 - Acute Tox. 4; H332 - STOT SE 3; H335 - STOT RE 2; H373 - Aquatic Chronic 3; H412
Classification note according to Annex VI to the CLP Regulation:	C
LD50 (Dermal):	1,100 mg/kg
LC50 (Inhalation vapours):	11 mg/l (4h)
Substance with a community workplace exposure limit.	

TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

Concentration	$4.4 \leq x < 6.8 \%$
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Section 3

CAS number	13463-67-7
EC number	236-675-5
INDEX number	022-006-00-2
Registration Number	01-2119489379-17-xxxx
Hazard classification	Carc. 2; H351
Classification note according to Annex VI to the CLP Regulation:	10 – V – W

ETHYL ACETATE

Concentration	$1.26 \leq x < 1.96 \%$
CAS number	141-78-6
EC number	205-500-4
INDEX number	607-022-00-5
Registration Number	01-2119475103-46-xxxx
Hazard classification	- Flam. Liq. 2; H225 - Eye Irrit. 2; H319 - STOT SE 3; H336
Additional classification	EUH066
Substance with a community workplace exposure limit.	

Diphenylmethanediisocyanate, isomers and homologues

Concentration	$0.5 \leq x < 1 \%$
CAS number	9016-87-9
EC number	618-498-9
Hazard classification	- Skin Irrit. 2; H315 - Skin Sens. 1B; H317 - Eye Irrit. 2; H319 - Acute Tox. 4; H332 - Resp. Sens. 1; H334 - STOT SE 3; H335 - Carc. 2; H351 - STOT RE 2; H373
Specific concentration limits	- Resp. Sens. 1; H334: $\geq 0.1 \%$ - STOT SE 3; H335: $\geq 5 \%$ - Skin Irrit. 2; H315: $\geq 5 \%$ - Eye Irrit. 2; H319: $\geq 5 \%$
Substance with a community workplace exposure limit.	

Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate

Concentration	$0.204 \leq x < 0.88 \%$
CAS number	52829-07-9
EC number	258-207-9
Registration Number	01-2119537297-32-xxxx
Hazard classification	- Eye Dam. 1; H318 - Repr. 2; H361f - Aquatic Acute 1; H400 - Aquatic Chronic 2; H411
M Factor (acute)	1

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Concentration	$0.174 \leq x < 0.75 \%$
CAS number	101-68-8
EC number	202-966-0
INDEX number	615-005-00-9
Registration Number	01-2119457014-47-xxxx

Section 3

Hazard classification	• Skin Irrit. 2; H315 • Skin Sens. 1; H317 • Eye Irrit. 2; H319 • Acute Tox. 4; H332 • Resp. Sens. 1; H334 • STOT SE 3; H335 • Carc. 2; H351 • STOT RE 2; H373
Specific concentration limits	• Resp. Sens. 1; H334: $\geq 0.1 \%$ • STOT SE 3; H335: $\geq 5 \%$ • Skin Irrit. 2; H315: $\geq 5 \%$ • Eye Irrit. 2; H319: $\geq 5 \%$
Classification note according to Annex VI to the CLP Regulation:	2 - C
Substance with a community workplace exposure limit.	

tris(nonylphenyl) phosphite

Concentration	$0.152 \leq x < 0.198 \%$
CAS number	26523-78-4
EC number	247-759-6
INDEX number	015-202-00-4
Registration Number	01-2119520601-54-xxxx
Hazard classification	• Skin Sens. 1; H317 • Aquatic Acute 1; H400 • Aquatic Chronic 1; H410
M Factor (acute)	1
M Factor (chronic)	1

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 contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice. 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.

Rescuers 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.

Section 4

4.3 Indication of any immediate medical attention and special treatment needed

If symptoms occur, whether acute or delayed, consult a doctor.

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.

6.4 Reference to other sections

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

Section 7

Section 7 Handling and storage**7.1 Precautions for safe handling**

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

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. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

Storage class TRGS 510 (Germany)

None

Applicable technical instruction according to Royal Decree 656/2017:

Classification	Storage in fixed containers	Storage in mobile containers
• H334 – Resp. Sens. 1	Not applicable	MIE APQ-10 – Storage in mobile containers

Respect the joint storage conditions established in Royal Decree 656/2017.

7.3 Specific end use(s)

Information not available.

Section 8 Exposure controls/personal protection**8.1 Control parameters****Regulatory references**

ACGIH	ACGIH 2026
European Union-OEL	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
Ireland-OELV	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)
Malta-TLV	PROTECTION OF THE HEALTH AND SAFETY OF WORKERS FROM THE RISKS RELATED TO CHEMICAL AGENTS AT WORK REGULATIONS (S.L.424.24). PROTECTION OF WORKERS FROM THE RISKS RELATED TO EXPOSURE TO CARCINOGENS OR MUTAGENS AT WORK REGULATIONS (S.L.424.22)

XYLENE (MIXTURE OF ISOMERS)

	TWA		STEL		CEILING		Remarks
	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	
ACGIH		20					--
European Union-OEL	221	50	442	100			Skin
Ireland-OELV	221	50	442	100			Skin
Malta-TLV	221	50	442	100			Skin

Predicted no-effect concentration - PNEC

Normal value of STP microorganisms	6.58 mg/l
Normal value in fresh water	0.327 mg/l

Section 8

Predicted no-effect concentration - PNEC

Normal value for fresh water sediment	12.46 mg/kg/d
Normal value in marine water	0.327 mg/l
Normal value for marine water sediment	12.46 mg/kg/d
Normal value for the terrestrial compartment	2.31 mg/kg/d
Normal value for water, intermittent release	0.327 mg/l

Health - Derived no-effect level - DNEL / DMEL
Local effect
Systemic effect

Consumers, short-term, inhalation	260 mg/m ³	260 mg/m ³
Consumers, long-term, dermal	Not available	125 mg/kg bw/d
Consumers, long-term, inhalation		65.3 mg/m ³
Consumers, long-term, oral	Not available	12.5 mg/kg bw/d
Workers, short-term, inhalation	442 mg/m ³	
Workers, long-term, dermal	Not available	212 mg/kg bw/d
Workers, long-term, inhalation		221 mg/m ³

TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

	TWA		STEL		CEILING		Remarks
	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	
ACGIH	0.2						Respiratory
Ireland-OELV	4						Respiratory
Ireland-OELV	10						Inhalation

DIPHENYLMETHANE-4,4'-DIISOCYANATE

	TWA		STEL		CEILING		Remarks
	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	
ACGIH	0.051	0.005					--
European Union-OEL	0.01		0.2				Inhalation
European Union-OEL	0.01		0.02				Skin As NCO
Ireland-OELV		0.005					-- As NCO

ETHYL ACETATE

	TWA		STEL		CEILING		Remarks
	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	
ACGIH		200					--
European Union-OEL	734	200	1,468	400			--
Ireland-OELV		200		400			--
Malta-TLV	734	200	1,468	400			--

Predicted no-effect concentration - PNEC

Normal value of STP microorganisms	650 mg/l
Normal value in fresh water	0.24 mg/l
Normal value for fresh water sediment	1.15 mg/kg/d
Normal value in marine water	0.024 mg/l
Normal value for marine water sediment	0.115 mg/kg/d
Normal value for the terrestrial compartment	0.148 mg/kg/d
Normal value for the food chain (secondary poisoning)	200 mg/kg

Health - Derived no-effect level - DNEL / DMEL
Local effect
Systemic effect

Consumers, short-term, inhalation	734 mg/m ³	734 mg/m ³
Consumers, long-term, dermal	Not available	37 mg/kg bw/d
Consumers, long-term, inhalation	367 mg/m ³	367 mg/m ³
Consumers, long-term, oral	Not available	4.5 mg/kg bw/d

Section 8

Health - Derived no-effect level - DNEL / DMEL	Local effect	Systemic effect
Workers, short-term, inhalation	1,468 mg/m ³	1,468 mg/m ³
Workers, long-term, dermal	Not available	63 mg/kg bw/d
Workers, long-term, inhalation	734 mg/m ³	734 mg/m ³

Diphenylmethanediisocyanate, isomers and homologues

	TWA		STEL		CEILING		Remarks
	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	
European Union-OEL		0.005					--

Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate
Predicted no-effect concentration - PNEC

Normal value of STP microorganisms	1 mg/l
Normal value in fresh water	0.005 mg/l
Normal value for fresh water sediment	8.02 mg/kg/d
Normal value in marine water	0.0005 mg/l
Normal value for marine water sediment	0.802 mg/kg/d
Normal value for the terrestrial compartment	1.6 mg/kg/d

Health - Derived no-effect level - DNEL / DMEL	Local effect	Systemic effect
Consumers, short-term, dermal		1 mg/kg bw/d
Consumers, short-term, inhalation		1.4 mg/m ³
Consumers, long-term, dermal		1 mg/kg bw/d
Consumers, long-term, inhalation		1.4 mg/m ³
Workers, short-term, dermal		2 mg/kg bw/d
Workers, short-term, inhalation		5.6 mg/m ³
Workers, short-term, oral		1 mg/kg/d
Workers, long-term, dermal		2 mg/kg bw/d
Workers, long-term, inhalation		5.6 mg/m ³
Workers, long-term, oral		

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.

When choosing risk management measures and operating conditions, consult the exposure scenarios attached.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

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.

Protect your hands with gloves of the following type:

Protect your hands with gloves of the following type

Material	Thickness	Breakthrough time
Nitrile rubber (NBR) In the event of a short term contact or as protection against occasional contacts	0.3 mm —	480 min —
Butyl rubber (IIR) In case of continued exposure	0.4 mm —	480 min —

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344/EN ISO 13034).

Wash body with soap and water after removing protective clothing.

Section 8

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

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. The protection provided by masks is in any case limited.

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.

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	paste	
Colour	various	
Odour	typical	
Odour threshold	Not applicable	
Melting point / freezing point	Not available	
Initial boiling point	> 35 °C (> 95 °F)	
Flammability	not flammable	
Lower explosive limit	Not applicable	
Upper explosive limit	Not applicable	
Flash point	Not applicable	
Auto-ignition temperature	Not available	
Decomposition temperature	Not applicable	
pH	not soluble in water	
Kinematic viscosity	> 20.5 mm ² /s	
Dynamic viscosity	60,000 ≤ x ≤ 135,000 PI	
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not applicable	
Density and/or relative density	1.3 ≤ x ≤ 1.35 kg/l	
Relative vapour density	Not available	

Particle characteristics

Information not available.

9.2 Other information

9.2.1 Information with regard to physical hazards

Information not available.

9.2.2 Other safety characteristics

Total solids	93.70 %	Temperature: 250 °C (482 °F)
VOC (Directive 2010/75/EU)	0.00 % – 0 g/l	
Volatile carbon	5.19 % – 68 g/l	

Section 10

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 (525.2 °F)

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

ETHYL ACETATE

ETHYL ACETATE: decomposes slowly into acetic acid and ethanol under the effect of light, air and water.

Diphenylmethanediisocyanate, isomers and homologues

Reacts with: water, acids, alcohols, amines, bases

Product cures with moisture.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

XYLENE (MIXTURE OF ISOMERS)

Stable in normal conditions of use and storage

Reacts violently with: strong oxidants, strong acids, nitric acid, perchlorates

May form explosive mixtures with: air

DIPHENYLMETHANE-4,4'-DIISOCYANATE

May react dangerously with: alcohols, amines, ammonia, sodium hydroxide, acids, water, strong acids, strong bases

ETHYL ACETATE

Risk of explosion on contact with: alkaline metals, hydrides, oleum

May react violently with: fluorine, strong oxidising agents, chlorosulphuric acid, potassium tert-butoxide

Forms explosive mixtures with: air

ETHYL ACETATE: risk of explosion on contact with: metals, alkalis, hydrides. oleum. can react violently with: fluoride, strong oxidising agents, chlorosulfuric acid, potassium tert-butoxide. Forms explosive mixtures with the air.

Diphenylmethanediisocyanate, isomers and homologues

Risk of explosion on contact with: water, acids, alcohols, amines, bases

10.4 Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHYL ACETATE

Avoid exposure to: light, sources of heat, naked flames

ETHYL ACETATE: avoid exposure to light, sources of heat and naked flames.

Diphenylmethanediisocyanate, isomers and homologues

Avoid exposure to: high temperatures, moisture

10.5 Incompatible materials

ETHYL ACETATE

Incompatible with: acids, bases, strong oxidants, chlorosulphuric acid

ETHYL ACETATE: acids and bases, strong oxidising agents; aluminium and some plastics, nitrates and chlorosulphuric acid.

Section 10

Diphenylmethanediisocyanate, isomers and homologues

Keep away from: water, acids, alcohols, amines, bases

10.6 Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

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
11.1.1 Metabolism, toxicokinetics, mechanism of action and other information

Information not available.

11.1.2 Information on likely routes of exposure
XYLENE (MIXTURE OF ISOMERS)

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

DIPHENYLMETHANE-4,4'-DIISOCYANATE

WORKERS: inhalation; contact with the skin.

POPULATION: inhalation of ambient air; contact with the skin of products containing the substance.

11.1.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure
XYLENE (MIXTURE OF ISOMERS)

Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

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).

11.1.4 Interactive effects
XYLENE (MIXTURE OF ISOMERS)

Intake of alcohol interferes with the metabolism of the substance, inhibiting it. Ethanol consumption (0.8 g/kg) before a 4-hour exposure to xylene vapours (145 and 280 ppm) causes a 50% reduction in the excretion of methyl hippuric acid, whereas the concentration of xylenes in the blood increases approx. 1.5-2 times. At the same time there is an increase in the secondary side effects of the ethanol. The metabolism of the xylenes is increased by phenobarbital and 3-methyl-colantrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with the glycine, which results in a decrease in urinary excretion of methyl hippuric acid. Other industrial products can interfere with the metabolism of xylenes.

DIPHENYLMETHANE-4,4'-DIISOCYANATE

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

11.1.5 ACUTE TOXICITY

ATE (Inhalation - vapours) of the mixture	> 20 mg/l
ATE (Oral) of the mixture	Not classified (no significant component)
ATE (Dermal) of the mixture	> 2,000 mg/kg

Section 11

XYLENE (MIXTURE OF ISOMERS)

LD50 (Oral):	5,627 mg/kg	Species/guidelines: Rat
LD50 (Dermal):	1,100 mg/kg	Species/guidelines: Tab. 3.1.2. All. I CLP - for mixtures
LC50 (Inhalation vapours):	11 mg/l	Exposure duration: 4 hours Species/guidelines: Tab. 3.1.2. All. I CLP - for mixtures

TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

LD50 (Oral):	> 10,000 mg/kg	Species/guidelines: Rat
LD50 (Dermal):	10,000 mg/kg	
LC50 (Inhalation mists/powders):	> 6.82 mg/l	Exposure duration: 4 hours

DIPHENYLMETHANE-4,4'-DIISOCYANATE

LD50 (Oral):	> 2,000 mg/kg	Species/guidelines: Rat
LD50 (Dermal):	> 9,400 mg/kg	Species/guidelines: Oryctolagus
LC50 (Inhalation mists/powders):	1.5 mg/l	Exposure duration: 4 hours Species/guidelines: Rat

ETHYL ACETATE

LD50 (Oral):	4,934 mg/kg	Species/guidelines: Rat
LD50 (Dermal):	> 2,000 mg/kg	Species/guidelines: Rabbit
LC50 (Inhalation vapours):	> 22.5 mg/l	Exposure duration: 4 hours Species/guidelines: Rat

Diphenylmethanediisocyanate, isomers and homologues

LD50 (Oral):	> 10,000 mg/kg	Species/guidelines: Rat
LD50 (Dermal):	> 9,400 mg/kg	Species/guidelines: Rabbit
ATE (Inhalation - vapours)	11 mg/l	estimate from table 3.1.2 of Annex I of the CLP
ATE (Inhalation - mists / powders)	1.5 mg/l	estimate from table 3.1.2 of Annex I of the CLP

Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate

LD50 (Oral):	3,700 mg/kg	Species/guidelines: Rat
LD50 (Dermal):	> 3,170 mg/kg	Species/guidelines: Rat
LC50 (Inhalation vapours):	0.5 mg/l	Exposure duration: 4 hours Species/guidelines: Rat

tris(nonylphenyl) phosphite

LD50 (Oral):	> 15,000 mg/kg	Species/guidelines: Rat
LD50 (Dermal):	> 2,000 mg/kg	Species/guidelines: Oryctolagus sp.

11.1.6 SKIN CORROSION/IRRITATION

Does not meet the classification criteria for this hazard class

Diphenylmethanediisocyanate, isomers and homologues

(Cas 9016-87-9)
Method: OECD test n. 404: acute skin corrosion/irritation
NC code: rabbits
Results: slightly irritating for the skin

11.1.7 SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

11.1.8 RESPIRATORY OR SKIN SENSITISATION

Sensitising for the respiratory system

11.1.9 GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

Section 11

11.1.10 CARCINOGENICITY

Does not meet the classification criteria for this hazard class

XYLENE (MIXTURE OF ISOMERS)

Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1% or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter $\leq 10 \mu\text{m}$.

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).

Diphenylmethanediisocyanate, isomers and homologues

(Cas 9016-87-9)

Method: OECD test n. 453: combined studies of chronic toxicity and carcinogenicity

NC code: Ratti

Results: carcinogenic

Contains titanium dioxide (contains <1% particles with aerodynamic diameter $\leq 10 \mu\text{m}$). Attention, in case of vaporization dangerous respirable droplets may form. As a precaution, do not breathe vapors or mists.

11.1.11 REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

11.1.12 STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

11.1.13 STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

11.1.14 ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

Viscosity:

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**XYLENE (MIXTURE OF ISOMERS)**

LC50 - for Fish	2.6 mg/l	Exposure duration: 96 hours Species/guidelines: Oncorhynchus mykiss
EC50 - for Algae / Aquatic Plants	4.36 mg/l	Exposure duration: 72 hours Species/guidelines: Pseudokirchneriella subcapitata
Chronic NOEC for Fish	> 1.3 mg/l	Species/guidelines: Oncorhynchus mykiss
Chronic NOEC for Crustacea	1.57 mg/l	Species/guidelines: Daphnia magna

Section 12

ETHYL ACETATE

EC50 - for Crustacea	165 mg/l	Exposure duration: 48 hours Species/guidelines: Daphnia magna
LC50 - for Fish	230 mg/l	Exposure duration: 96 hours Species/guidelines: Pimephales promelas
Chronic NOEC for Crustacea	2.4 mg/l	Species/guidelines: Daphnia pulex
Chronic NOEC for Algae / Aquatic Plants	> 100 mg/l	Species/guidelines: Scenedesmus subspicatus

Diphenylmethanediisocyanate, isomers and homologues

LC50 - for Fish	> 1,000 mg/l	Exposure duration: 96 hours Species/guidelines: Danio rerio
EC50 - for Algae / Aquatic Plants	> 1,640 mg/l	Exposure duration: 72 hours Species/guidelines: Scenedesmus subspicatus

Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate

EC50 - for Crustacea	0.57 mg/l	Exposure duration: 48 hours Species/guidelines: Daphnia magna
LC50 - for Fish	4.4 mg/l	Exposure duration: 96 hours Species/guidelines: Lepomis macrochirus
EC50 - for Algae / Aquatic Plants	1.9 mg/l	Exposure duration: 72 hours Species/guidelines: Scenedesmus subspicatus

tris(nonylphenyl) phosphite

LC50 - for Fish	7.1 mg/l	Exposure duration: 96 hours Species/guidelines: Danio rerio
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12.2 Persistence and degradability
XYLENE (MIXTURE OF ISOMERS)

Solubility in water	$100 \leq x \leq 1,000$ mg/l
Degradability	Rapidly degradable

TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

Solubility in water	< 0.001 mg/l
Degradability	Unavailable

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Solubility in water	$0.1 \leq x \leq 100$ mg/l
Degradability	NOT rapidly degradable

ETHYL ACETATE

Solubility in water	$80 \leq x \leq 83.1$ g/l
Degradability	Rapidly degradable

Diphenylmethanediisocyanate, isomers and homologues

Degradability	NOT rapidly degradable
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Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate

Solubility in water	18.8 mg/l
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tris(nonylphenyl) phosphite

Degradability	NOT rapidly degradable
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12.3 Bioaccumulative potential
XYLENE (MIXTURE OF ISOMERS)

Bioconcentration factor	25.9
Partition coefficient n-octanol/water	3.12 LogKow

Section 12

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Partition coefficient n-octanol/water	4.51 LogKow
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ETHYL ACETATE

Bioconcentration factor	30
Partition coefficient n-octanol/water	0.68 LogKow

Diphenylmethanediisocyanate, isomers and homologues

Partition coefficient n-octanol/water	4.51 LogKow
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Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate

Bioconcentration factor	0.35
Partition coefficient n-octanol/water	0.35 LogKow

12.4 Mobility in soil
XYLENE (MIXTURE OF ISOMERS)

Partition coefficient soil/water	2.73 LogKoc
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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 $\geq$ than 0,1%.

12.6 Endocrine disrupting properties

Based on the available data, the product contains the following endocrine disruptors in concentrations of 0.1% or greater by weight that may have endocrine disrupting effects on the environment and on animal species causing adverse effects on the exposed organisms or on their progeny:

Endocrine disruptors (environment)

tris(nonylphenyl) phosphite

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.

Hazardous waste classification - Reg. (UE) 1357/2014

HP 7 – Carcinogenic

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

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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

Not applicable

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

	Restrictions	Registration Number EU
Product restrictions	3, 40	
Contained substance		
	74	
	75	
DIISONONYL PHTHALATE	52	01-2119430798-28-xxxx
DIPHENYLMETHANE-4,4'-DIISOCYANATE	56, 74	01-2119457014-47-xxxx
Diphenylmethanediisocyanate, isomers and homologues	56, 74	

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

Not applicable

Substances in Candidate List (Art. 59 REACH)

	Registration Number EU
tris(nonylphenyl) phosphite	01-2119520601-54-xxxx

Substances subject to authorisation (Annex XIV REACH)Authorisation
Number

Sunset date

Registration Number EU

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

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Substances subject to the Stockholm Convention:

None

Regulation (EU) 2019/1021 - on persistent organic pollutants

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)

WGK2 – Hazard to waters

Additional information according to EC Regulation no. 552/2009 of 22 June 2009:

The use of this product may cause allergic reactions in people already sensitized to diisocyanates. People with asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation, unless a protective mask with a suitable gas filter (e.g. type A1 according to EN 14387) is used.

From 24 August 2023, appropriate training is required before industrial or professional use.

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:

Acute Tox. 4	Acute toxicity, category 4
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Asp. Tox. 1	Aspiration hazard, category 1
Carc. 2	Carcinogenicity, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Repr. 2	Reproductive toxicity, category 2
Resp. Sens. 1	Respiratory sensitization, category 1
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1B	Skin sensitization, category 1B
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

Section 16

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

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Legend

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EC50: Effective concentration (required to induce a 50% effect)
- EC: Identifier in ESIS (European archive of existing substances)
- 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
- 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
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
11. Regulation (EU) 2016/918 (VIII ATP CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX ATP CLP)

Section 16

General Bibliography

13. Regulation (EU) 2017/776 (X ATP CLP)
14. Regulation (EU) 2018/669 (XI ATP CLP)
15. Regulation (EU) 2019/521 (XII ATP CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII ATP CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (EU) 2020/217 (XIV ATP CLP)
19. Delegated Regulation (EU) 2020/1182 (XV ATP CLP)
20. Delegated Regulation (EU) 2021/643 (XVI ATP CLP)
21. Delegated Regulation (EU) 2021/849 (XVII ATP CLP)
22. Delegated Regulation (EU) 2022/692 (XVIII ATP CLP)
23. Delegated Regulation (EU) 2023/707
24. Delegated Regulation (EU) 2023/1434 (XIX ATP CLP)
25. Delegated Regulation (EU) 2023/1435 (XX ATP CLP)
26. Delegated Regulation (EU) 2024/197 (XXI ATP CLP)
27. Delegated Regulation (EU) 2024/2564 (XXII ATP CLP)
28. Regulation (EU) 2024/2865
29. Delegated Regulation (EU) 2025/1222 (XXIII ATP CLP)

- 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 from the previous revision

This SDS has been prepared with a different software from the one previous revision. The new calculation does not allow us to identify all the differences compared to the previous version. We therefore recommend carefully reviewing all 16 sections of the SDS. We remain available to provide any clarification regarding the content or the changes made compared to the previous version, which is available to professional or industrial users.