

Safety Data Sheet according to (EC) No 1907/2006 as amended

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TEROSON PU 8595 M known as TEROSTAT 8595 M

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

1.1. Product identifier

TEROSON PU 8595 M known as TEROSTAT 8595 M

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

Intended use:

1-component-polyurethane adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone:

+44 (1442) 278000

ua-productsafety.uk@henkel.com

For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: technical.services@henkel.co.uk

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Respiratory sensitizer

Category 1

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

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Contains

4,4'- methylenediphenyl diisocyanate

Signal word: Danger

Hazard statement: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Supplemental information As from 24 August 2023 adequate training is required before industrial or professional

use.

Further information: https://www.feica.eu/PUinfo

Precautionary statement: P261 Avoid breathing dust.

2.3. Other hazards

Persons suffering from allergic reactions to isocyanates should avoid contact with the product. Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:

Adhesive

Base substances of preparation:

Polyurethane

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
4,4'- methylenediphenyl diisocyanate	202-966-0	0,1-< 1 %	Carc. 2
101-68-8	01-2119457014-47		H351
			Acute Tox. 4; Inhalation
			H332
			STOT RE 2
			H373
			Eye Irrit. 2
			H319
			STOT SE 3
			H335
			Skin Irrit. 2
			H315
			Resp. Sens. 1
			H334
			Skin Sens. 1B
			H317

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Fresh air, oxygen supply, warmth; seek specialist medical attention.

Delayed effects possible after inhalation.

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In case of fire toxic gases can be released.

5.3. Advice for firefighters

Wear protective equipment.

Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

Avoid contact with skin and eyes.

Keep unprotected persons away.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Remove mechanically.

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures:

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction.

Keep away from heat and direct sunlight.

Store in a cool, dry place.

Storage at 15 to 25°C is recommended.

7.3. Specific end use(s) 1-component-polyurethane adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Di-"isononyl" phthalate 28553-12-0 [DIISONONYL PHTHALATE]		5	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [CALCIUM CARBONATE, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [CALCIUM CARBONATE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [LIMESTONE, RESPIRABLE MARBLE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [LIMESTONE, TOTAL INHALABLE MARBLE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL
Carbon black 1333-86-4 [CARBON BLACK]		3,5	Time Weighted Average (TWA):		EH40 WEL
Carbon black 1333-86-4 [CARBON BLACK]		7	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES, ALL (AS -NCO)]		0,02	Time Weighted Average (TWA):		EH40 WEL
4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES, ALL (AS -NCO)]		0,07	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL

Occupational Exposure Limits

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Di-"isononyl" phthalate 28553-12-0 [DIISONONYL PHTHALATE]		5	Time Weighted Average (TWA):		IR_OEL
Limestone 1317-65-3 [CALCIUM CARBONATE]		4	Time Weighted Average (TWA):		IR_OEL
Limestone 1317-65-3 [CALCIUM CARBONATE]		10	Time Weighted Average (TWA):		IR_OEL
Carbon black 1333-86-4 [CARBON BLACK]		3	Time Weighted Average (TWA):		IR_OEL
4,4'-Methylenediphenyl diisocyanate 101-68-8 [4,4'-METHYLENE-DIPHENYL DIISOCYANATE (AS -NCO)]	0,005		Time Weighted Average (TWA):		IR_OEL
4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES, ALL, EXCEPT METHYL ISOCYANATE (CAS NO. 624- 83-9) AND TOLUENE (2,4 OR 2,6 DIISOCYANATE (CAS NO. 584-84-9, 91- 08-7)]		0,02	Time Weighted Average (TWA):		IR_OEL

4,4'-Methylenediphenyl diisocyanate	0,07	Short Term Exposure	15 minutes	IR_OEL
101-68-8		Limit (STEL):		
[ISOCYANATES, ALL, EXCEPT				
METHYL ISOCYANATE (CAS NO. 624-				
83-9) AND TOLUENE (2,4 OR 2,6				
DIISOCYANATE (CAS NO. 584-84-9, 91-				
08-7)]				

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental		Value	Value			Remarks
	Compartment	period	mg/l	ppm	mg/kg	others	
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (freshwater)		1 mg/l				
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (marine water)		0,1 mg/l				
4,4'- methylenediphenyl diisocyanate 101-68-8	Soil				1 mg/kg		
4,4'- methylenediphenyl diisocyanate 101-68-8	sewage treatment plant (STP)		1 mg/l				
4,4'- methylenediphenyl diisocyanate 101-68-8	Air						no hazard identified
4,4'- methylenediphenyl diisocyanate 101-68-8	Predator						no potential for bioaccumulation
4,4'- methylenediphenyl diisocyanate 101-68-8	aqua (intermittent releases)		10 mg/l				

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
4,4'- methylenediphenyl diisocyanate 101-68-8	Workers	inhalation	Long term exposure - local effects		0,05 mg/m3	no hazard identified
4,4'- methylenediphenyl diisocyanate 101-68-8	Workers	inhalation	Acute/short term exposure - local effects		0,1 mg/m3	no hazard identified
4,4'- methylenediphenyl diisocyanate 101-68-8	General population	inhalation	Long term exposure - local effects		0,025 mg/m3	no hazard identified
4,4'- methylenediphenyl diisocyanate 101-68-8	General population	inhalation	Acute/short term exposure - local effects		0,05 mg/m3	no hazard identified

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	 Basis of biol. exposure index	 Additional Information
4,4'-Methylenediphenyl diisocyanate 101-68-8 [ISOCYANATES (APPLIES TO HDI, IPDI, TDI AND MDI)]	Isocyanate- derived diamine	Creatinine in urine	Sampling time: At the end of the period of exposure.	UKEH40BMG V	

8.2. Exposure controls:

Engineering controls:

Use only in well ventilated areas.

Respiratory protection: Ensure good ventilation/suction at the workplace.

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eve protection:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.

Skin protection:

Wear protective equipment.

Protective clothing that covers arms and legs.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway).

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance paste

pasty black

Odor odourless

Odour threshold No data available / Not applicable

pH Not available.

Melting point No data available / Not applicable Solidification temperature No data available / Not applicable Initial boiling point No data available / Not applicable

Flash point Not applicable

Evaporation rate

No data available / Not applicable
Flammability

No data available / Not applicable
Explosive limits

No data available / Not applicable
Vapour pressure

No data available / Not applicable
Relative vapour density:

No data available / Not applicable

Density 1,28 g/cm³

(23 °C (73.4 °F))

Bulk density No data available / Not applicable Solubility No data available / Not applicable

Solubility (qualitative) Insoluble

(20 °C (68 °F); Solvent: Water)

Partition coefficient: n-octanol/water

Auto-ignition temperature

No data available / Not applicable

No data available / Not applicable

Decomposition temperature

No data available / Not applicable

Viscosity 3.000 - 4.000 Pa*s

(Physica Rheolab; Instrument: Physica Rheolab; 23 °C (73.4 °F); Rotary measuring

system: Z5)

Viscosity (kinematic)

Explosive properties

No data available / Not applicable

No data available / Not applicable

Oxidising properties

No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Reaction with water, alcohols, amines.

Reacts with water: Pressure built up in closed vessel (CO2).

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Humidity

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

At higher temperatures isocyanate may be released.

Carbon dioxide is generated under contact with moisture, leading to pressure in the cans. Danger of cans bursting!

SECTION 11: Toxicological information

General toxicological information:

Persons suffering from allergic reactions to isocyanates should avoid contact with the product.

11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
4,4'- methylenediphenyl	LD50	> 2.000 mg/kg	rat	other guideline:
diisocyanate				_
101-68-8				

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
4,4'- methylenediphenyl	LD50	> 9.400 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
diisocyanate				
101-68-8				

Acute inhalative toxicity:

No data available.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
4,4'- methylenediphenyl diisocyanate	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
101-68-8				

Serious eye damage/irritation:

No data available.

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances	Result	Test type	Species	Method
CAS-No.				
4,4'- methylenediphenyl	sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
diisocyanate				
101-68-8				

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of	Metabolic activation /	Species	Method
Cris 110		administration	Exposure time		
4,4'- methylenediphenyl	negative	bacterial reverse	with and without		EU Method B.13/14
diisocyanate		mutation assay (e.g			(Mutagenicity)
101-68-8		Ames test)			
4,4'- methylenediphenyl	negative	inhalation		rat	OECD Guideline 474
diisocyanate					(Mammalian Erythrocyte
101-68-8					Micronucleus Test)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
4,4'- methylenediphenyl diisocyanate 101-68-8	carcinogenic	inhalation: aerosol	2 y 6 h/d	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity:

No data available.

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
4,4'- methylenediphenyl	NOAEL 0,0002 mg/l	inhalation:	main: 2 y; satellite:1	rat	OECD Guideline 453
diisocyanate	_	aerosol	у		(Combined Chronic
101-68-8			6 h/d; 5 d/w		Toxicity / Carcinogenicity
					Studies)

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
4,4'- methylenediphenyl	LC50	> 1.000 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish,
diisocyanate					Acute Toxicity Test)
101-68-8					

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type		_		
4,4'- methylenediphenyl	EC50	129,7 mg/l	24 h	Daphnia magna	OECD Guideline 202
diisocyanate					(Daphnia sp. Acute
101-68-8					Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
4,4'- methylenediphenyl	NOEC	10 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
diisocyanate					magna, Reproduction Test)
101-68-8					

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
4,4'- methylenediphenyl	EC50	> 1.640 mg/l	72 h	Scenedesmus subspicatus (new	OECD Guideline 201 (Alga,
diisocyanate				name: Desmodesmus	Growth Inhibition Test)
101-68-8				subspicatus)	
4,4'- methylenediphenyl	NOELR	1.640 mg/l	72 h	Scenedesmus subspicatus (new	OECD Guideline 201 (Alga,
diisocyanate		-		name: Desmodesmus	Growth Inhibition Test)
101-68-8				subspicatus)	

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
4,4'- methylenediphenyl	EC50	> 100 mg/l	3 h	activated sludge	OECD Guideline 209
diisocyanate					(Activated Sludge,
101-68-8					Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
4,4'- methylenediphenyl	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 F (Ready
diisocyanate					Biodegradability: Manometric
101-68-8					Respirometry Test)

12.3. Bioaccumulative potential

Hazardous substances CAS-No.	Bioconcentratio n factor (BCF)	Exposure time	Temperature	Species	Method
4,4'- methylenediphenyl	92 - 200	28 d		Cyprinus carpio	OECD Guideline 305 E
diisocyanate					(Bioaccumulation: Flow-through
101-68-8					Fish Test)

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
4,4'- methylenediphenyl	4,51	22 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC
diisocyanate			Method)
101-68-8			

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
4,4'- methylenediphenyl diisocyanate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
101-68-8	Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you. 080409

SECTION 14: Transport information

14.1. UN number

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.2. UN proper shipping name

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.3. Transport hazard class(es)

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.4. Packing group

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.5. Environmental hazards

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.6. Special precautions for user

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Not applicable Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Not applicable Persistent organic pollutants (Regulation (EU) 2019/1021): Not applicable

EU. REACH, Annex XVII, Marketing and Use Restrictions (Regulation 1907/2006/EC): Not applicable

VOC content 0 %
(VOCV 814.018 VOC regulation
CH)
VOC content 0 %
(2010/75/EU)

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

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

Further information:

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