

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

1.1. Product identifier

Product form : Mixture

Product name : PUW-B

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Siddec
 Industrieweg 10
 2490 Balen - BELGIE
 T +32 14 81 50 01
safety@sidec.be - www.sidec.eu

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
Belgium	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 1120 Bruxelles/Brussel	+32 70 245 245

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Inhalation:dust,mist) H332

Skin Sens. 1 H317

STOT SE 3 H335

Aquatic Chronic 3 H412

Full text of H statements : see section 16

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H317 - May cause an allergic skin reaction.
 H332 - Harmful if inhaled.
 H335 - May cause respiratory irritation.
 H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P261 - Avoid breathing Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
 P273 - Avoid release to the environment.
 P280 - Wear protective gloves.
 P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 P362+P364 - Take off contaminated clothing and wash it before reuse.

EUH-statements

: EUH204 - Contains isocyanates. May produce an allergic reaction.

PUW-B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hexane,1,6-diisocyanato-, homopolymer, polyethylene glycolmono-Me ether-blocked	(CAS-No.) 160994-68-3	≥ 100	Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412
Hexamethylene diisocyanate, oligomers	(CAS-No.) 28182-81-2 (EC-No.) 931-274-8 (REACH-no) 01-2119485796-17	≥ 86	Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 STOT SE 3, H335
Hexamethylene-1,6-diisocyanate	(CAS-No.) 822-06-0 (EC-No.) 212-485-8 (EC Index-No.) 615-011-00-1 (REACH-no) 01-2119457571-37	~ 0,23	Acute Tox. 4 (Oral), H302 Acute Tox. 1 (Inhalation), H330 Skin Corr. 1, H314 Resp. Sens. 1, H334 Skin Sens. 1, H317

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Hexamethylene-1,6-diisocyanate	(CAS-No.) 822-06-0 (EC-No.) 212-485-8 (EC Index-No.) 615-011-00-1 (REACH-no) 01-2119457571-37	(0,5 ≤C < 100) Skin Sens. 1, H317 (0,5 ≤C < 100) Resp. Sens. 1, H334

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Remove contaminated clothes.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Flush with lukewarm water for 15 minutes. Get medical advice/attention.
First-aid measures after ingestion	: Do NOT induce vomiting. Get immediate medical advice/attention.

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide. Foam. Powder. Water fog.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Nitrogen oxides. Carbon dioxide. Carbon monoxide. Toxic fumes may be released.
--	--

5.3. Advice for firefighters

Firefighting instructions	: Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Ensure adequate ventilation. Keep public away.
------------------	--

PUW-B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

6.1.1. For non-emergency personnel

Protective equipment : Reference to other sections. SECTION 8.
Emergency procedures : Evacuate area. Ventilate area.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal.
Methods for cleaning up : Concerning disposal elimination after cleaning, see section 13.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Check on limit values that apply in your local situation. Use only outdoors or in a well-ventilated area. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Keep work clothing separately. Concerning personal protective equipment to use, see section 8.
Hygiene measures : Wash contaminated clothing before reuse. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hexamethylene-1,6-diisocyanate (822-06-0)		
Belgium	Limit value (mg/m ³)	0,034 mg/m ³ (Hexamethylene diisocyanate; Belgium; Time weighted average 8h)
Belgium	Limit value (ppm)	0,005 ppm (Hexamethylene diisocyanate; Belgium; Time weighted average 8h)
France	VME (mg/m ³)	0,075 mg/m ³ (Diisocyanate d'hexaméthylène; Frankrijk; Tijdsgewogen gemiddelde 8u; VL: Valeur non réglementaire indicative)
France	VME (ppm)	0,01 ppm (Diisocyanate d'hexaméthylène; Frankrijk; Tijdsgewogen gemiddelde 8u; VL: Valeur non réglementaire indicative)
France	VLE (mg/m ³)	0,15 mg/m ³ Diisocyanate d'hexaméthylène; Frankrijk; Kortetijds waarde; VL: Valeur non réglementaire indicative; (5min)
France	VLE (ppm)	0,02 ppm Diisocyanate d'hexaméthylène; Frankrijk; Kortetijds waarde; VL: Valeur non réglementaire indicative; (5min)
United Kingdom	WEL TWA (mg/m ³)	0,02 mg/m ³ Isocyanates, all (as -NCO) Except methyl isocyanate; Verenigd Koninkrijk; Tijdsgewogen gemiddelde 8u; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m ³)	0,07 mg/m ³ Isocyanates, all (as -NCO) Except methyl isocyanate; Verenigd Koninkrijk; Kortetijds waarde; Workplace exposure limit (EH40/2005)
USA - ACGIH	ACGIH TWA (ppm)	0,005 ppm (Hexamethylene diisocyanate; USA; Time Weighted Average 8h; TLV - Adopted Value)

PUW-B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

8.2. Exposure controls

Materials for protective clothing	: protective clothing
Hand protection	: Protecting gloves from butyl rubber >480 min (EN 374) >0,5 mm. fluorinated rubber >0,4 mm
Eye protection	: Wear eye/face protection
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. In order to avoid inhalation of mist/vapour, all spraying must be done wearing adequate respirator. Self-contained breathing apparatus with an air line. Persons suffering from asthma or eczema and persons who have chronic lung diseases, skin or respiratory allergies to isocyanates should not work with the material

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: colourless to slightly yellow.
Odour	: almost. odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: ≈ -42 °C
Boiling point	: No data available
Flash point	: ≈ 195 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: 430 °C
Flammability (solid, gas)	: No data available
Vapour pressure	: 5 hPa
Vapour pressure at 50 °C	: 10 hPa
Relative vapour density at 20 °C	: 1,15
Relative density	: No data available
Density	: 1,15 kg/l
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 1004 mPa·s
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Decomposition starting from. 150 °C.

10.3. Possibility of hazardous reactions

Reacts slowly with water, generate gases (CO₂) and overpressure : rupture containers. Exothermic reaction with. amines. alcohols.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

PUW-B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if inhaled.

PUW-B	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	390 mg/m ³
ATE CLP (dust,mist)	1,73 mg/l/4h

Hexamethylene-1,6-diisocyanate (822-06-0)	
LD50 oral rat	745 mg/kg
LD50 dermal rat	> 7000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24h, Rat, Male / Female, Experimental Value, Dermal, 14 day (s))
LD50 dermal rabbit	599 mg/kg
LC50 inhalation rat (mg/l)	0,31 mg/l/4h
LC50 inhalation rat (ppm)	45 ppm/4h

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : May cause respiratory irritation.
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

PUW-B	
Viscosity, kinematic	873,043 mm ² /s

SECTION 12: Ecological information

12.1. Toxicity

PUW-B	
LC50 fish 1	28,3 mg/l
EC50 Daphnia 1	> 100 mg/l
EC50 72h algae (1)	> 100 mg/l

Hexamethylene-1,6-diisocyanate (822-06-0)	
LC50 fish 1	22 mg/l (LC0; Other; 96 h; Brachydanio rerio; Static system)
EC50 Daphnia 1	< 0,33 mg/l (EC0; Other; 24h; Daphnia magna; Static system)
LC50 fish 2	31 mg/l (LC100; Other; 96 h; Brachydanio rerio; Static system)

12.2. Persistence and degradability

PUW-B	
Biodegradation	2 %

Hexamethylene-1,6-diisocyanate (822-06-0)	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

Hexamethylene-1,6-diisocyanate (822-06-0)	
BCF fish 1	59,6 (BCFWIN, Pisces, QSAR)
Partition coefficient n-octanol/water (Log Pow)	1,08 (QSAR)
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

Hexamethylene-1,6-diisocyanate (822-06-0)	
Partition coefficient n-octanol/water (Log Koc)	2,78 – 3,68 (log Koc:calculated value)
Ecology - soil	little. Mobile.

12.5. Results of PBT and vPvB assessment

PUW-B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Component	
Hexamethylene-1,6-diisocyanate (822-06-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Other adverse effects : Contains isocyanate.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Empty remaining contents. Dispose in a safe manner in accordance with local/national regulations.
Sewage disposal recommendations : Do not allow into drains or water courses.
Product/Packaging disposal recommendations : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

No data available

- Transport by sea

No data available

PUW-B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

- Air transport

No data available

- Inland waterway transport

Carriage prohibited (ADN) : No

Not subject to ADN : No

- Rail transport

Carriage prohibited (RID) : No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

Regulatory reference : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Persons suffering from asthma or eczema and persons who have chronic lung diseases, skin or respiratory allergies to isocyanates should not work with the material
The requirements from the Danish Working Environment Authorities regarding work with epoxy resins and isocyanates must be observed during use and disposal

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 1 (Inhalation)	Acute toxicity (inhal.), Category 1
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

PUW-B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
EUH204	Contains isocyanates. May produce an allergic reaction.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.