PR751-PRA794-I-SH000401

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Date of issue: 16/04/2015 Revision date: 16/04/2015 Supersedes: 11/06/2014 Version: 5.00

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

1.1. Product identifier

Product form : Mixture

Product name : PR751-PRA794-I-SH000401

Product code : SH000401

Product group : Trade product

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

1.2.1. Relevant identified uses

Main use category : For professional use only

Industrial/Professional use spec : Industrial

Use of the substance/mixture : Polyurethane resin

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

SYNTHENE
Ferme de l'Evêché CS20308
60723 Pont Sainte Maxence Cedex - FRANCE
T 33 344 31 72 00 - F 33 157 67 44 58
qual@synthene.com - www.synthene.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
UNITED KINGDOM	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241

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

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Xn; R20
Xi; R37
R43

Full text of R-phrases: see section 16

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning

Hazardous ingredients : Homopolymer of 1,6-hexamethylene diisocyanate, Hexamethylene-di-isocyanate

Hazard statements (CLP) : H317 - May cause an allergic skin reaction
H332 - Harmful if inhaled
H335 - May cause respiratory irritation

Precautionary statements (CLP) : P261 - Avoid breathing mist, spray, fume, dust, vapours, gas
P280 - Wear protective gloves, protective clothing, eye protection, face protection
P302+P352 - IF ON SKIN: Wash with plenty of water, soap

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, a doctor

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Homopolymer of 1,6-hexamethylene diisocyanate	(CAS No) 28182-81-2 (REACH-no) 01-2119485796-17	>= 90	Xn; R20 Xi; R37 R43	Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 STOT SE 3, H335
Hexamethylene-di-isocyanate	(CAS No) 822-06-0 (EC no) 212-485-8 (EC index no) 615-011-00-1 (REACH-no) 01-2119457571-37	0,1 - 0,5	T; R23 Xi; R36/37/38 R42 R43	Acute Tox. 4 (Oral), H302 Acute Tox. 1 (Inhalation:vapour), H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335

Specific concentration limits:

Name	Product identifier	Specific concentration limits: DSD/DPD	Specific concentration limits: CLP
Hexamethylene-di-isocyanate	(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 < 2) Xn;R20 (C >= 0,5) R42/43 (C >= 2) T;R23	(C >= 0,5) Resp. Sens. 1, H334 (C >= 0,5) Skin Sens. 1, H317

Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician. Take immediately victim to hospital.

First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Get medical advice/attention. Wash contaminated clothing before reuse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Get medical advice/attention.

First-aid measures after ingestion : Obtain emergency medical attention. Take immediately victim to hospital. Do not give anything to drink. Do not induce vomiting.

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

Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause an allergic skin reaction. May cause respiratory irritation.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Foam. Dry powder. Carbon dioxide.

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 oxides (CO, CO2). Hydrogen cyanide. Isocyanates.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Notify authorities if product enters sewers or public waters. Prevent entry to sewers and public waters. Do not empty into drains.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Do not keep the container sealed. Dispose of this material and its container to hazardous or special waste collection point.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Use only outdoors or in a well-ventilated area. Wear personal protective equipment. Avoid contact with skin and eyes.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Keep only in the original container in a cool, well-ventilated place. Keep away from food, drink and animal feedingstuffs. Floors should be impervious, resistant to liquids and easy to clean.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hexamethylene-di-isocyanate (822-06-0)		
France	VME (mg/m³)	0,075 mg/m³
France	VME (ppm)	0,01 ppm
France	VLE (mg/m³)	0,15 mg/m³
France	VLE (ppm)	0,02 ppm

8.2. Exposure controls

Personal protective equipment : Gloves. Safety glasses. Insufficient ventilation: wear respiratory protection. Protective clothing.

Hand protection : Wear protective gloves

Eye protection : Chemical goggles or safety glasses

Skin and body protection : Wear suitable protective clothing. Avoid contact with skin, eyes and clothing

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment



Other information : Do not eat, drink or smoke during use. Take off immediately all contaminated clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Colourless.

Odour	:	Pungent.
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	100 Pa
Relative vapour density at 20 °C	:	No data available
Relative density	:	1,15
Solubility	:	Insoluble. Reacts with water.
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	1100 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

No additional information available

10.3. Possibility of hazardous reactions

On contact with water : May release hazardous gases. Risk of bursting.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Exothermic reaction on contact with : Amines. Alcohol.

10.6. Hazardous decomposition products

Stable under normal conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation:dust,mist: Harmful if inhaled.

ATE CLP (dust,mist)	1,500 mg/l/4h

Homopolymer of 1,6-hexamethylene diisocyanate (28182-81-2)	
LD50 oral rat	> 2500 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (Dust/Mist - mg/l/4h)	0,39 mg/l/4h

Hexamethylene-di-isocyanate (822-06-0)	
LD50 oral rat	> 746 mg/kg
LD50 dermal rat	> 7000 mg/kg
LC50 inhalation rat (mg/l)	0,124 mg/m³

Skin corrosion/irritation : Not classified

Based on available data, the classification criteria are not met

Serious eye damage/irritation : Not classified

Based on available data, the classification criteria are not met

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity	:	Not classified Based on available data, the classification criteria are not met
Carcinogenicity	:	Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	:	Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	:	May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	:	Not classified Based on available data, the classification criteria are not met
Aspiration hazard	:	Not classified Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	:	Harmful if inhaled.

SECTION 12: Ecological information

12.1. Toxicity

Homopolymer of 1,6-hexamethylene diisocyanate (28182-81-2)	
LC50 fish 1	> 100 mg/l
EC50 Daphnia 1	> 100 mg/l
ErC50 (algae)	> 100 mg/l
ErC50 (other aquatic plants)	> 100 mg/l

Hexamethylene-di-isocyanate (822-06-0)	
LC50 fish 1	> 82,8 mg/l
EC50 Daphnia 1	> 100 mg/l
ErC50 (algae)	> 77,4 mg/l

12.2. Persistence and degradability

PR751-PRA794-I-SH000401	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

Hexamethylene-di-isocyanate (822-06-0)	
Bioconcentration factor (BCF REACH)	57,6

12.4. Mobility in soil

PR751-PRA794-I-SH000401	
Ecology - soil	low mobility.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment. Do not contaminate ground and surface water

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. This material and its container must be disposed of as hazardous waste.

Ecology - waste materials : 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

Transport regulations (ADR) : Not subject

- Transport by sea

Transport regulations (IMDG) : Not subject

- Air transport

No data available

- Inland waterway transport

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 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

VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 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

Recommendations Danish Regulation	:	Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Data sources	:	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	:	None.

Full text of R-, H- and EUH-phrases:

Acute Tox. 1 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) 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
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Resp. Sens. 1	Sensitisation — Respiratory, category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
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
R20	Harmful by inhalation
R23	Toxic by inhalation
R36/37/38	Irritating to eyes, respiratory system and skin
R37	Irritating to respiratory system
R42	May cause sensitization by inhalation
R43	May cause sensitisation by skin contact
T	Toxic
Xi	Irritant
Xn	Harmful

SDS EU (REACH Annex II)

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