

SAFETY DATA SHEET

[in accordance with the regulation no. 1907/2006/EG (REACH)]

Revision: 02.08.2018

Version: 2/ENG

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1 Product identifier

Trade name: **PLASTIPUR® 570 Component B**

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

Relevant identified uses: Hardener component for Polyaspartic Resin.

Uses advised against: not determined.

1.3 Details of the supplier of the safety data sheet

Supplier: **Plasti-Chemie Produktionsgesellschaft mbH**

Address: Falgardring 1
D-08223 Falkenstein
Germany

Telephone/Fax number: +49 3745/74432-0 / +49 3745/74432-27

E-mail address for a competent person responsible of sds: volkmar.lull@plasti-chemie.de

Further information provided by: Mr. Volkmar Lull, +49 3745/74432-0

1.4 Emergency telephone number

Chemtrec: 1-800-424-9300 for US

+1 703-527-3887 outside US

Europa 112

Österreich +43 1 406 43 43

Belgien Poison center (BE): +32 70 245 245

Dänemark Poison Control Hotline (DK): +45 82 12 12 12

Finnland Poison Information Centre (FI): +358 9 471 977

Frankreich ORFILA (FR): + 01 45 42 59 59

Deutschland Giftnotruf Berlin, Tel. 030 30686 790

Poison Center Nord: +49 551 19240 (24h erreichbar, Deutsch und Englisch)

Poison Information Centre Erfurt: +49 361 730730 (Gemeinsames Giftinformationszentrum der Länder Mecklenburg-

Vorpommern, Sachsen, Sachsen-Anhalt und Thüringen c/o HELIOS Klinikum Erfurt Nordhäuser Straße 74, 99089 Erfurt)

Irland National Poisons Information Centre (IE): +353 1 8379964

Island +354 543 2222

Italien Poison Center, Milan (IT): +39 02 6610 1029

Luxemburg 112

Niederlande National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)

Norwegen Poisons Information (NO): + 47 22 591300

Portugal Poison Information Center (PT): +351 21 330 3284

Spanien Poison Information Service (ES): +34 91 562 04 20

Schweden Poisons Information Center (SV): +46 8 33 12 31

Schweiz Poison Center: Tel 145; +41 44 251 51 51

Großbritannien NHS Direct (UK): +44 (0) 845 46 47; 111

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to regulation (EG) 1272/2008/WE

Skin Sens. 1 H317, Acute Tox. 4 H332, STOT SE 3 H335

May cause an allergic skin reaction. Harmful if inhaled. May cause respiratory irritation.

2.2 Label elements

This substance is graded and classified according to (EG) No. 1272/2008 [CLP].

Hazard symbols and signal words

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Warning

Product identifier

Contains: Hexamethylene-1,6-diisocyanate homopolymer

Hazard statements

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

Precaution statements

P260 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

2.3 Other hazards

The components of this mixture do not meet the criteria for PBT or vPvB in accordance of Annex XIII of REACH.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance

CAS: 28182-81-2	<u>Hexamethylene-1,6-diisocyanate homopolymer</u> :	
REACH Reg. No.: 01-2119488934-20	Classification acc. to 1272/2008/WE: Skin Sens. 1 H317, Acute Tox. 4 H332, STOT SE 3 H335	app. 100 %

Additional information: For the wording of the hazard statements refer to section 16.

3.2 Mixture

Not applicable.

ABSCHNITT 4: FIRST AID MEASUREMENTS

4.1 Description of first aid measurements

General information:	Immediately remove all contaminated clothing.
Inhalation:	Take affected persons out into fresh air. In case of breathing difficulties seek medical attention.
Skin contact:	Wash immediately with soap and water and rinse thoroughly. Consult doctor if symptoms persist.
Eye contact:	Wash the eye with the eyelid open for several minutes under running water. Protect unharmed eye. Immediately consult doctor.
Ingestion:	Do not induce vomiting. Immediately consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

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4.3 Indication of any immediate medical attention and special treatment

No further relevant information available.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguish media

Suitable extinguish media: Carbon dioxide (CO₂) Extinguishing powder, foam. Fight larger fires with water spray.

Unsuitable extinguish media: Water jet – fire spread risk.

5.2 Special hazards arising from the substance or mixture

In case of fire, it can be released: Carbon Monoxide (CO), Carbon Dioxide (CO₂), Nitrogen Oxides (NO_x), Isocyanate vapours, traces of hydrogen cyanide (HCN). Do not inhale explosion and combustion gases.

5.3 Advise for firefighters

Special protective equipment: Self-contained breathing apparatus, chemical resistant protective clothing

Additional information: Do not allow contaminated firefighting water to get into ground/sewers/ground water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe fumes. Ensure adequate ventilation.

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions

Do not allow product to reach sewage system, water bodies or ground/soil.

6.3 Methods and material for containment and cleaning up

Pick up mechanically. Residue with liquid-binding, moist material (sawdust, sand, chemical binders based on calcium silicate hydrate etc.). After approx. 1 hour, collect in waste container, do not close (CO₂ development). Keep it moist and leave it in a safe place for several days.

6.4 Reference to other sections

Disposal: Section 13. Personal protective equipment: Section 8 Safe Handling: Section 7.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Air extraction is required for spray processing. Wash hands before breaks and at the end of work. Use skin protection ointment. Immediately remove all contaminated clothing. Avoid contact with skin or eyes.

Information on fire and explosion protection:

Keep ignition sources away - do not smoke. Take precautionary measures against electrostatic charging.

7.2 Conditions for safe storage, including any incompatibilities

Notes on fire and explosion protection:

No special actions required.

Requirements for storage rooms and containers:

Store in a cool, well ventilated place.

Storage compatibility:

Keep away from foodstuffs, beverages and food.

Additional information:

Keep container tightly sealed and store in a cool location.

Storage class:

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7.3 Specific end use(s)

No further relevant information available.

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SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Components with community workplace exposure limits:

DNEL

Hexamethylene-1,6-diisocyanate homopolymer:

DNEL	Oral	Inhalation	Dermal
Worker Short-term local Effects	-	1 mg/m ³	-
Worker Long-term local Effects	-	0,5 mg/m ³	-

PNEC

Hexamethylene-1,6-diisocyanate homopolymer:

PNEC Freshwater	0,199 mg/L
PNEC Marinewater	0,0199mg/L
PNEC Freshwater sed	44551 mg/kg (Dry weight)
PNEC Marinewater sed	4455 mg/kg (Dry weight)
PNEC Soil	8884 mg/kg (Dry weight)
PNEC Wastewater treatment plant	100 mg/L

8.2 Exposure controls

General safety and hygiene measures:

Keep away from foodstuff, beverages and food.

Wash hand thoroughly before breaks and at the end of work.

Avoid contact with skin and eyes.

Respiratory protection:

In case of insufficient ventilation at workplace or spray processing respiratory protection is required.

In case of hypersensitivity to the respiratory tract and the skin (asthma, chronic bronchitis, chronic skin disorders) the handling of the product is not recommended.



In case of brief exposure or low pollution use respiratory filter device.
Filter A-P2 (organic gases and vapors)



In case of intense or prolonged exposure.
self-contained breathing apparatus

Hand protection:

Only use chemical protective gloves with CE labelling of Category III according to EN 374.



Selection of the glove material on consideration of the permeation times, rates of diffusion and the degradation.

Glove material:

The selection of an adequate glove not only depends on the material, but also from different other quality characteristics and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Butyl Rubber.

Fluor Rubber.

Penetration time of glove material:

The exact break through time is to be learned from the manufacturer and must be maintained. The break through time is dependent of the activity and usage time

Eye protection:



Tightly sealed goggles

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Body protection:
Protective clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:
Physical state: Liquid
Colour: Transparent
Odour: Characteristic
Odour threshold: Not determined.

Safety relevant basic data:

Parameters		Unit	Remark
<i>Density:</i>	1,15	g/cm ³	20 °C
<i>Bulk density:</i>			not determined
<i>pH value:</i>			not applicable
<i>Melting point/Melting range:</i>			not determined
<i>Boiling point/Boiling range:</i>			not determined
<i>Flash point:</i>	app. 203	°C	DIN EN 22719
<i>Flammability (solid/gaseous)</i>			not applicable
<i>Explosion dangerousness:</i>			not explosive ¹
<i>lower Explosion limit:</i>			not determined
<i>upper Explosion limit:</i>			not determined
<i>Ignition temperature:</i>	440	°C	DIN 51794
<i>Decomposition temperature:</i>	150	°C	
<i>Oxidising potential:</i>			not determined
<i>Vapour pressure:</i>	<0,00001	hPa	20°C EG A4
<i>Rate of vaporization:</i>			not determined
<i>Water solubility:</i>			not determined
<i>Liposolubilty:</i>			not miscible
<i>Soluble in:</i>			not determined
<i>Distribution coefficient:</i>			not determined
<i>n-Octanol/Water:</i>	8,38	log POW	not determined
<i>Viscosity:</i>	app. 958	mPas	dynamic ²
<i>Solvent separation test:</i>			not determined
<i>Solvent content:</i>			not determined

¹ Formation of explosive vapor / air mixtures is possible

² DIN 53019 20°C

9.2 Other information

No further relevant information available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No further relevant information available.

10.2 Chemical stability

No further relevant information available.

10.3 Possible hazardous reactions

Exothermic reactions with amines and alcohols. With water gradual CO₂ development, in closed containers pressure build-up, bursting hazard.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

No further relevant information available.

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10.6 Hazardous decomposition products

No hazardous decomposition products when stored and handled correctly.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity:

Relevant LD/LC50 Values:

28182-81-2 Hexamethylene-1,6-diisocyanate homopolymer:	Oral	LD50 (Rat) > 5000 mg/kg (OECD 402)
	Dermal	LD50 (Rat) > 2000 mg/kg (OECD 402)
		LD50 (Rabbit) > 2000 mg/kg (OECD 402)
	Inhalation	LC50 (Rat) 0,390 mg/L / 4h (OECD 402)

Irritation to the skin:

May cause an allergic skin reaction.

Serious eye damage/irritation:

Can cause respiratory irritation.

Respiratory or skin sensitisation:

No lung sensitization in animal experiments.

Aspiration hazard:

Based on available data the classification criteria are not met.

CMR effects:

Carcinogenicity

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Based on available data the classification criteria are not met.

Other information:

Specific Target Organ Toxicity:

Single exposure

Can cause respiratory irritation.

Repeated exposure

Based on available data the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic Toxicity:

28182-81-2 Hexamethylene-1,6-diisocyanate homopolymer:

LC50 (Danio rerio): >100 mg/L / 96 h (OECD 203)

EC50 (Daphnia magna): >100 mg/L / 48 h (67/548/EWG; V, C.2.)

ErC50 (Scenedemus subspicatus): 199 mg/L / 72 h (67/548/EWG; V, C.3.)

EC50 (Activated sludge): >10.000 mg/L / 3 h (EG-RL 88/302/EEC)

12.2 Persistence and degradability

Biodegradability:

28182-81-2 Hexamethylene-1,6-diisocyanate homopolymer:

OECD 301 F

Biodegradation: 2%, 23d; Not easily degradable

OECD 302 C

Biodegradation: 0%, 23d; Not potentially degradable

Stability in water:

28182-81-2 Hexamethylene-1,6-diisocyanate homopolymer:

OECD 111

Half-life time: 7,7 h at 25 °C (hydrolysis)

Photo degradation:

28182-81-2 Hexamethylene-1,6-diisocyanate homopolymer:

Test type: photo transformation in air

Half-life Indirect photolysis: 11.7 h (calculated), After release or contact with air, photochemical degradation of the substance occurs rapidly.

The product is classified as biologically not readily degradable, with low degradability potential. It hydrolyses easily in water is rapidly degraded photo chemically after release.

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12.3 Bioaccumulative potential

Enrichment in water organisms is not to be expected.

12.4 Mobility in Soil

No further relevant information available.

12.5 Results of PBT and vPvB assessment

The PBT/vPvB criteria of REACH are not applicable for this substance.

12.6 Other adverse effects

General information:

Isocyanate settles at the interface to water to form a Solid, high melting and insoluble reaction product (Polyurea) with formation of Carbon dioxide.

This reaction is strongly promoted by surfactants (e.g., liquid soaps) or water-soluble solvents.

According to the present knowledge, Polyurea is inert and non-degradable.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods for the product:

Dispose according to national regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue:

08 00 00 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS

08 02 00 Wastes from MFSU of other coatings (including ceramic materials)

08 02 99 Wastes NOS

Disposal methods for used packing:

Perform recycling in accordance with applicable regulations.

Only fully emptied packaging is recyclable.

SECTION 14: TRANSPORT INFORMATION

14.1 UN-Number

Not applicable.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packing group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

No hazardous material. Protect from moisture. Heat sensitive from +50 ° C. Keep away from food, beverages, acids and alkalis

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

Not applicable.

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SECTION 15: REGULATORY INFORMATION

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

Directive 2012/18/EU

REACH Regulation 1907/2006/EC

Regulation (EU) 2015/830

Regulation (EU) 453/2010

National regulations:

Other regulations, limitations and prohibitive regulations

Water hazardous class:

1 (self-classification) slightly water endangering

Substances of very high concern (SVHC) according to REACH, Article 57:

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment

A material safety assessment is available for hexamethylene-1,6-diisocyanate homopolymer.

SECTION 16: OTHER INFORMATION

Additional details:

Classification was made based on the data on the content of hazardous substances using the calculation method based on the guidelines of regulation 1272/2008/EC (CLP).

Relevant Phrases:

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled

H335 May cause respiratory irritation

Safety Data Sheet issuing person:

Pascal Konrad

Safety Data Sheet issued on:

10.11.2016