SAFETY DATA SHEET of:

MonoPrime PRW hardener

Revision date: Friday, June 1, 2018

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

1.1 Product identifier:

MonoPrime PRW hardener

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

/

Concentration in use: /

1.3 Details of the supplier of the safety data sheet:

PROKOL

Duizeldonksestraat 44

NL5705CA HELMOND (NEDERLAND)

Phone: 0031492547665 — Fax: 0031492547592

E-mail: jw.koolen@prokol.nl — Website: http://www.prokol.nl/

1.4 Emergency telephone number:

+313 02 74 88 88

2 SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:

Classification of the substance or mixture in accordance with regulation (EU) 1272/2008:

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

2.2 Label elements:

Pictograms:

Signal word:

Warning

Hazard statements:

H317 Skin Sens. 1: May cause an allergic skin reaction.
H332 Acute tox. 4: Harmful if inhaled.
H335 STOT SE 3: May cause respiratory irritation.

Precautionary statements:

P261: Avoid breathing dust/vapours/spray.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312: Call a POISON CENTER or doctor 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.

Contains:

Hexamethylene diisocyanate Hexamethylene diisocyanate polymer

2.3 Other hazards:

none

3 SECTION 3: Composition/information on ingredients:

Hexamethylene diisocyanate polymer	≤ 100 %	CAS number:	28182-81-2
		EINECS:	
		REACH Registration number:	01-2119485796-17
		CLP Classification:	**H317 Skin Sens. 1** **H332 Acute tox. 4** **H335 STOT SE 3**
Hexamethylene diisocyanate	≤ 0.2 %	CAS number:	822-06-0
		EINECS:	212-485-8
		REACH Registration number:	01-2119457571-37
		CLP Classification:	**H315 Skin Irrit. 2** **H317 Skin Sens. 1** **H319 Eye Irrit. 2** **H331 Acute tox. 3** **H334 Resp. Sens. 1** **H335 STOT SE 3**

For the full text of the H phrases mentioned in this section, see section 16.

4 SECTION 4: First aid measures:

4.1 Description of first aid measures:

Always ask medical advice as soon as possible should serious or continuous disturbances occur.

Skin contact: remove contaminated clothing, rinse with plenty of water, if necessary seek medical attention.
Eye contact: first prolonged rinsing with water (contact lenses to be removed if this is easily done) then take to physician.
Ingestion: rinse mouth, do not induce vomiting, take to hospital immediately.

Inhalation: let sit upright, fresh air, rest and take to hospital.

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

Skin contact: redness, pain
Eye contact: redness, pain, blurred vision
Ingestion: diarrhoea, headache, abdominal cramps, sleepiness, vomiting
Inhalation: sore throat, cough, shortness of breath, headache

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

none

5 SECTION 5: Fire-fighting measures:

5.1 Extinguishing media:

CO2, foam, powder, sprayed water

5.2 Special hazards arising from the substance or mixture:

none

5.3 Advice for firefighters:

Extinguishing agents to be avoided: none

6 SECTION 6: Accidental release measures:

6.1 Personal precautions, protective equipment and emergency procedures:

Do not walk into or touch spilled substances and avoid inhalation of fumes, smoke, dusts and vapours by staying up windRemove any contaminated clothing and used contaminated protective equipment and dispose of it safely.

6.2 Environmental precautions:

do not allow to flow into sewers or open water.

6.3 Methods and material for containment and cleaning up:

Contain released substance, store into suitable containers. If possible remove by using absorbent material.

6.4 Reference to other sections:

for further information check sections 8 & 13.

7 SECTION 7: Handling and storage:

7.1 Precautions for safe handling:

handle with care to avoid spillage.

7.2 Conditions for safe storage, including any incompatibilities:

keep in a sealed container in a closed, frost-free, ventilated room.

7.3 Specific end use(s):

/

8 SECTION 8: Exposure controls/personal protection:

8.1 Control parameters:

Listing of the hazardous ingredients in section 3, of which the TLV value is known

Hexamethylene diisocyanate 0.034 mg/m³

8.2 Exposure controls:

Inhalation protection:	if necessary, use an air-purifying face mask in case of respiratory hazards.	
Skin protection:	handling with Viton-gloves (EN 374). Breakthrough time: >480' Material thickness: 0,7 mm. Thoroughly check gloves before use. Take of the gloves properly without touching the outside with your bare hands. The manufacturer of the protective gloves has to be consulted about the suitability for a specific work station. Wash and dry your hands.	
Eye protection:	keep an eye-rinse bottle within reach. Tight-fitting safety goggles. Wear a face shield and protective suit in case of exceptional processing problems.	
Other protection:	impermeable clothing. The type of protective equipment depends on the concentration and amount of hazardous substances at the work station in question.	

9 SECTION 9: Physical and chemical properties:

9.1 Information on basic physical and chemical properties:

Melting point/melting range:	/
Boiling point/Boiling range:	82 °C — 245 °C
pH:	/
pH 1% diluted in water:	/
Vapour pressure/20°C,:	/
Vapour density:	not applicable
Relative density, 20°C:	1.1700 kg/l
Appearance/20°C:	liquid
Flash point:	158 °C
Flammability (solid, gas):	not applicable
Auto-ignition temperature:	/
Upper flammability or explosive limit, (Vol %):	/
Lower flammability or explosive limit, (Vol %):	/
Explosive properties:	not applicable
Oxidising properties:	not applicable
Decomposition temperature:	/
Solubility in water:	not soluble

Partition coefficient: n-octanol/water:	not applicable
Odour:	characteristic
Odour threshold:	not applicable
Dynamic viscosity, 20°C:	1 200 mPa.s
Kinematic viscosity, 40°C:	1 026 mm²/s
Evaporation rate (n-BuAc = 1):	/

9.2 Other information:

Volatile organic component (VOC):	0.00 %
Volatile organic component (VOC):	0.000 g/l
Sustained combustion test :	/

10 SECTION 10: Stability and reactivity:

10.1 Reactivity:

stable under normal conditions.

10.2 Chemical stability:

extremely high or low temperatures.

10.3 Possibility of hazardous reactions:

none

10.4 Conditions to avoid:

protect from sunlight and do not expose to temperatures exceeding + 50°C.

10.5 Incompatible materials:

alkalines, water, acids, organic matter, oxidants, reductants

10.6 Hazardous decomposition products:

doesn’t decompose with normal use

11 SECTION 11: Toxicological information:

11.1 Information on toxicological effects:

H317 Skin Sens. 1:	May cause an allergic skin reaction.
H332 Acute tox. 4:	Harmful if inhaled.
H335 STOT SE 3:	May cause respiratory irritation.

Calculated acute toxicity, ATE oral:	/
Calculated acute toxicity, ATE dermal:	/

Hexamethylene diisocyanate polymer	LD50 oral, rat:	≥ 5 000 mg/kg
	LD50 dermal, rabbit:	≥ 5 000 mg/kg
	LC50, Inhalation, rat, 4h:	11 mg/l

Hexamethylene diisocyanate	LD50 oral, rat:	≥ 5 000 mg/kg
	LD50 dermal, rabbit:	≥ 5 000 mg/kg
	LC50, Inhalation, rat, 4h:	≥ 50 mg/l

12 SECTION 12: Ecological information:

12.1 Toxicity:

Hexamethylene diisocyanate polymer	LC50 (Fish):	> 100 mg/L (Danio rerio)
	EC50 (Daphnia):	> 100 mg/L (48h)

12.2 Persistence and degradability:

No additional data available

12.3 Bioaccumulative potential:

No additional data available

12.4 Mobility in soil:

Water hazard class, WGK (AwSV): 3

Solubility in water: not soluble

12.5 Results of PBT and vPvB assessment:

No additional data available

12.6 Other adverse effects:

No additional data available

13 SECTION 13: Disposal considerations:

13.1 Waste treatment methods:

Draining into the sewers is not permitted. Removal should be carried out by licensed services. Possible restrictive regulations by local authority should always be adhered to.

14 SECTION 14: Transport information:

14.1 UN number:

not applicable

14.2 UN proper shipping name:

ADR, IMDG, ICAO/IATA not applicable

14.3 Transport hazard class(es):

Class(es): not applicable

Identification number of the hazard: not applicable

14.4 Packing group:

not applicable

14.5 Environmental hazards:

not dangerous to the environment

14.6 Special precautions for user:

Hazard characteristics:	not applicable
Additional guidance:	not applicable

15 SECTION 15: Regulatory information:

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

Water hazard class, WGK (AwSV):	3
Volatile organic component (VOC):	0.000 %
Volatile organic component (VOC):	0.000 g/l
Composition by regulation (EC) 648/2004:	none

15.2 Chemical Safety Assessment:

No data available

16 SECTION 16: Other information:

Legend to abbreviations used in the safety data sheet:

ADR:	The European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF:	Bioconcentration factor
CAS:	Chemical Abstracts Service
CLP:	Classification, Labelling and Packaging of chemicals
EINECS:	European INventory of Existing Commercial chemical Substances
Nr.:	number
PTB:	persistent, toxic, bioaccumulative
TLV:	Threshold Limit Value
vPvB:	very persistent and very bioaccumulative substances
WGK:	Water hazard class
WGK 1:	slightly hazardous for water
WGK 2:	hazardous for water
WGK 3:	extremely hazardous for water

Legend to the H Phrases used in the safety data sheet:

H315 Skin Irrit. 2: Causes skin irritation. **H317 Skin Sens. 1:** May cause an allergic skin reaction. **H319 Eye Irrit. 2:** Causes serious eye irritation. **H331 Acute tox. 3:** Toxic if inhaled. **H332 Acute tox. 4:** Harmful if inhaled. **H334 Resp. Sens. 1:** May cause allergy or asthma symptoms or breathing difficulties if inhaled. **H335 STOT SE 3:** May cause respiratory irritation.

CLP Calculation method:

Calculation method

Reason of revision, changes of following items:

Section: 9.2

MSDS reference number:

ECM-105816,40

This safety information sheet has been compiled in accordance with annex II/A of the regulation (EU) No 2015/830. Classification has been calculated in accordance with European regulation 1272/2008 with their respective amendments. It has been compiled with the utmost care. We cannot, however, accept responsibility for damage, of any kind, that may be caused by using these data or the product concerned. To use this preparation for an experiment or a new application , the user must carry out a material suitability and safety study himself.