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

1.1 Product identifier

Trade name	:	Pulastic [®] PUA-081 Part B
REACH Registration Number	:	01-2119485796-17-XXXX
Substance name	:	HDI oligomers, isocyanurate
CAS-No.	:	28182-81-2

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

1.3 Details of the supplier of the safety data sheet

Company name of supplier	:	Sika Nederland B.V. Zonnebaan 56 3542 EG Utrecht Nederland
Telephone	:	+31-30-2410120
Telefax	:	+31-30-2414482
E-mail address of person responsible for the SDS	:	EHS@nl.sika.com

1.4 Emergency telephone number

+31-57-0854201

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 127	72/2008)
Acute toxicity, Category 4	H332: Harmful if inhaled.
Skin sensitisation, Category 1 Specific target organ toxicity - single ex- posure, Category 3, Respiratory system	H317: May cause an allergic skin reaction. H335: May cause respiratory irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms :		
Signal word :	Warning	
Hazard statements :	H332 Hai	y cause an allergic skin reaction. rmful if inhaled. y cause respiratory irritation.
Precautionary statements :	Prevention: P261 P280	Avoid breathing mist or vapours. Wear protective gloves.
	Response: P304 + P340 + I	P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ 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.
	Storage:	
	P403 + P233	Store in a well-ventilated place. Keep con- tainer tightly closed.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)	M-Factor, SCL, ATE
HDI oligomers, isocyanu-	28182-81-2	100	Acute toxicity estimate

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rate Contains: hexamethylene-di- isocyanate <= 0,09 %	Not Assigned		Acute inhalation toxici- ty (dust/mist): 1,5 mg/l
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SECTION 4: First aid measures

4.1 Description of first aid measures General advice Move out of dangerous area. : Consult a physician. Show this safety data sheet to the doctor in attendance. If inhaled : Move to fresh air. Consult a physician after significant exposure. In case of skin contact Take off contaminated clothing and shoes immediately. 2 Wash off with soap and plenty of water. If symptoms persist, call a physician. In case of eye contact : Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. If swallowed : Do not induce vomiting without medical advice. Rinse mouth with water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. 4.2 Most important symptoms and effects, both acute and delayed **Symptoms** Cough Respiratory disorder Allergic reactions Headache See Section 11 for more detailed information on health effects and symptoms. Risks irritant effects · sensitising effects

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

4.3 Indication of any immediate medical attention and special treatment needed

	Treatment	: Treat symptomatically.
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SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media : In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for extinction.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion prod-	:	No hazardous combustion products are known
ucts		

5.3 Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.
Further information	:	Standard procedure for chemical fires.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment. Deny access to unprotected persons.
6.2 Environmental precautions		
Environmental precautions	:	Do not flush into surface water or sanitary sewer

ronmental precautions	:	Do not flush into surface water or sanitary sewer system.
-		If the product contaminates rivers and lakes or drains inform
		respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel,
		acid binder, universal binder, sawdust).
		Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	: Avoid exceeding the given occupational exposure limits (see section 8).
	Do not get in eyes, on skin, or on clothing.
	For personal protection see section 8.
	Persons with a history of skin sensitisation problems or asth-
	ma, allergies, chronic or recurrent respiratory disease should

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		not be employed in any process in which this mixture is being used. Smoking, eating and drinking should be prohibited in the ap- plication area. Provide sufficient air exchange and/or exhaust in work rooms. Follow standard hygiene measures when handling chemical products
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.
7.2 Conditions for safe storage, i	nc	luding any incompatibilities
Requirements for storage areas and containers	:	Store in original container. Keep in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Store in accordance with local regulations.
Further information on stor- age stability	:	No decomposition if stored and applied as directed.
7.3 Specific end use(s)		
Specific use(s)	:	Consult most current local Product Data Sheet prior to any use.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters *	Basis *

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Maintain air concentrations below occupational exposure standards. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection	:	Safety glasses with side-shields conforming to EN166 Eye wash bottle with pure water
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard must be worn at all times when handling chemical products. Reference number EN 374. Follow manu-

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	f	acturer specifications.
		Suitable for short time use or protection against splashes: Butyl rubber/nitrile rubber gloves (> 0,1 mm) Contaminated gloves should be removed. Suitable for permanent exposure: Viton gloves (0.4 mm), preakthrough time >30 min.
Skin and body protection	 ;	Protective clothing (e.g. Safety shoes acc. to EN ISO 20345, ong-sleeved working clothing, long trousers). Rubber aprons and protective boots are additionaly recommended for mixing and stirring work.
Respiratory protection	i i i i i i i i i i i i i i i i i i i	In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe work- ng limits of the selected respirator. organic vapor filter (Type A) A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm Ensure adequate ventilation. This can be achieved by local exhaust extraction or by general ventilation. (EN 689 - Meth- ods for determining inhalation exposure). This applies in par- ticular to the mixing / stirring area. In case this is not sufficent to keep the concentrations under the occupational exposure imits then respiration protection measures must be used. Ensure adequate ventilation, especially in confined areas.
Environmental exposure con	trol	S
General advice		Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform

respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state Colour	:	liquid colourless
Odour	:	very faint
Melting point/range / Freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flammability (solid, gas)	:	No data available

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Upper/lower flammability or explosive limits

Upper explosion limit / Up- per flammability limit	-	
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	158 °C Method: closed cup
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
рН	:	Not applicable substance/mixture reacts with water
Viscosity Viscosity, kinematic	:	> 7 mm2/s (40 °C)
Solubility(ies) Water solubility	:	insoluble
Partition coefficient: n- octanol/water	:	No data available
Vapour pressure	:	1 hPa
Density	:	1,16 g/cm3 (20 °C)
Relative vapour density	:	No data available
Particle characteristics	:	No data available

9.2 Other information

No data available

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SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : No hazards to be specially mentioned.

10.4 Conditions to avoid

Conditions to avoid :	No data available
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10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Harmful if inhaled.

Components:

HDI oligomers, isocyanurate Acute oral toxicity		LD50 Oral (Rat): > 2.500 mg/kg
Acute inhalation toxicity	:	LC50: 1,5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Expert judgement
		Acute toxicity estimate: 1,5 mg/l Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	:	LD50 Dermal (Rat): > 2.000 mg/kg

Skin corrosion/irritation

Not classified due to lack of data.

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Serious eye damage/eye irritation Not classified due to lack of data.

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified due to lack of data.

Germ cell mutagenicity

Not classified due to lack of data.

Carcinogenicity

Not classified due to lack of data.

Reproductive toxicity

Not classified due to lack of data.

STOT - single exposure

May cause respiratory irritation.

STOT - repeated exposure

Not classified due to lack of data.

Aspiration toxicity

Not classified due to lack of data.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Components:

HDI oligomers, isocyanurate:

Toxicity to daphnia and other	:	EC50 (Daphnia (water flea)): > 100 mg/l
aquatic invertebrates		Exposure time: 48 h

12.2 Persistence and degradability

No data available

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12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment

: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Endocrine disrupting properties

Product:

Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:		
Additional ecological infor- mation	:	There is no data available for this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	The generation of waste should be avoided or minimized wherever possible.
		Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way.
		Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
		Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
European Waste Catalogue	:	08 01 11* waste paint and varnish containing organic solvents or other dangerous substances
Contaminated packaging	:	15 01 10* packaging containing residues of or contaminated by dangerous substances
Country NI 000000214444		10 /

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SECTION 14: Transport information

14.1 UN number or ID number

ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.2 UN proper shipping name		
ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.3 Transport hazard class(es)		
ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.4 Packing group		
ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA (Cargo)	:	Not regulated as a dangerous good
IATA (Passenger)	:	Not regulated as a dangerous good
14.5 Environmental hazards		

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture International Chemical Weapons Convention (CWC) : Not applicable Schedules of Toxic Chemicals and Precursors

REACH Information:	All substances contained in our Products are
	 registered by our upstream suppliers, and/or
	 registered by us, and/or
	 excluded from the regulation, and/or



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- exempted from the registration.

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)			Conditions of restriction for the fol- lowing entries should be considered: Number on list 3		
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).			None of the components are listed (=> 0.1 %).		
REACH - List of substances subject to authorisation (Annex XIV)			Not applicable		
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer			Not applicable		
Regulation (EU) 2019/1021 on persistent organic pollu- tants (recast)			Not applicable		
Regulation (EU) No 649/2012 of the European Parlia- ment and the Council concerning the export and import of dangerous chemicals			Not applicable		
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable					
Volatile organic compounds :	Law on the incentive ta: (VOCV) no VOC duties	x fc	or volatile organic compounds		
			4 November 2010 on industrial ution prevention and control)		
MAL-Code-Number :	00-3				

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance by the supplier.

SECTION 16: Other information

Full text of other abbreviations

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ADR	:	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	:	Chemical Abstracts Service
DNEL		Derived no-effect level
EC50	÷	Half maximal effective concentration
GHS	:	Globally Harmonized System
IATA	:	International Air Transport Association
IMDG	:	International Maritime Code for Dangerous Goods
LD50	:	Median lethal dosis (the amount of a material, given all at
		once, which causes the death of 50% (one half) of a group of
1.050		test animals)
LC50		Median lethal concentration (concentrations of the chemical in
		air that kills 50% of the test animals during the observation period)
MARPOL	:	International Convention for the Prevention of Pollution from
		Ships, 1973 as modified by the Protocol of 1978
OEL	:	Occupational Exposure Limit
PBT	:	Persistent, bioaccumulative and toxic
PNEC	:	Predicted no effect concentration
REACH	:	Regulation (EC) No 1907/2006 of the European Parliament
		and of the Council of 18 December 2006 concerning the Reg-
		istration, Evaluation, Authorisation and Restriction of Chemi-
0.440		cals (REACH), establishing a European Chemicals Agency
SVHC		Substances of Very High Concern
vPvB	:	Very persistent and very bioaccumulative

Further information

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

Changes as compared to previous version !

NL / EN