



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

### 1.1. Product identifier

**Name of product** Urethane Resin 45-60-80  
Code-Nr. 105101

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

#### Uses advised against

#### Remark

Do not use for injecting or spraying.

#### Recommended intended purpose(s)

2-K Urethan - Resin

### 1.3. Details of the supplier of the safety data sheet

#### Distributor

WEICON GmbH & Co. KG  
Königsberger Str. 255, DE-48157 Münster  
Phone : +49(0)251 / 9322 - 0, Fax : +49(0)251 / 9322 - 244  
E-Mail : msds@weicon.de  
Internet : www.weicon.de

#### Advice

Produktsicherheit / Product-Safety-Department  
Phone : +49(0)251 / 9322 - 0  
Fax : +49(0)251 / 9322 - 244  
E-mail (competent person):  
msds@weicon.de

### 1.4. Emergency telephone number

EMERGENCY CONTACT - UK, UAE, South Africa (24h): Tel:  
++44 1865 407333 (English)  
TRANSPORT EMERGENCY CONTACT - UK, UAE, South  
Africa (24h): Tel: ++44 1865 407333 (English)

### Manufacturer

WEICON GmbH & Co. KG  
Königsberger Str. 255, DE-48157 Münster

### 1.4. Emergency telephone number

GIFTNOTRUF/TRANSPORTNOTRUF - Deutschland (24h):  
Tel: ++49 69 222 25285 (Deutsch, Englisch)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Acute Tox. 4	H332	
Eye Irrit. 2	H319	

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Resp. Sens. 1	H334	
Skin Sens. 1	H317	

**Hazard Statements**

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**2.2. Label elements**

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



GHS07



GHS08

**Signal word**

Danger

**Hazard Statements**

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Precautionary Statements**

P102	Keep out of reach of children.
P261	Avoid breathing vapours/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/eye protection.
P285	In case of inadequate ventilation wear respiratory protection.
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.
P304 + P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P501	Dispose of contents/container to hazardous or special waste collection point.

**Hazardous ingredients for labeling**

4-methyl-m-phenylene diisocyanate, aromatic polyisocyanate-prepolymer, HDI oligomers, isocyanurate, HDI oligomers, biuret

**Special rules for supplemental label elements for certain mixtures**

Contains isocyanates. May produce an allergic reaction.

**2.3. Other hazards**

People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation.

**Information pertaining to special dangers for human and environment**

May cause sensitization by inhalation.

Harmful: danger of serious damage to health by prolonged inhalation

**Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**SECTION 3: Composition/ information on ingredients****3.1. Substances**

not applicable

**3.2. Mixtures****Hazardous ingredients**

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
584-84-9	209-544-5	4-methyl-m-phenylene diisocyanate	0,1 < 1	Carc. 2, H351 / Acute Tox. 2, H330 / Eye Irrit. 2, H319 / STOT SE 3, H335 / Skin Irrit. 2, H315 / Resp. Sens. 1, H334 / Skin Sens. 1, H317 / Aquatic Chronic 3, H412
37273-56-6 28182-81-2		aromatic polyisocyanate-prepolymer HDI oligomers, isocyanurate	50 - 99,9 2,5 < 10	Eye Irrit. 2, H319 / Skin Sens. 1, H317 Acute Tox. 4, H332 / Skin Sens. 1, H317 / STOT SE 3, H335
	931-288-4	HDI oligomers, biuret	1 < 2,5	Acute Tox. 3, H331 / Skin Sens. 1, H317 / STOT SE 3, H335

**REACH**

CAS No	Name	REACH registration number
584-84-9	4-methyl-m-phenylene diisocyanate	01-2119486974-18
37273-56-6	aromatic polyisocyanate-prepolymer	not subject to registration
28182-81-2	HDI oligomers, isocyanurate	not subject to registration
	HDI oligomers, biuret	01-2119488177-26-0000

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Remove contaminated soaked clothing immediately.

In the event of persistent symptoms receive medical treatment.

**In case of inhalation**

Remove the casualty into fresh air and keep him immobile.

Seek medical treatment immediately.

**In case of skin contact**

In case of contact with skin wash off immediately with soap and water.

Consult a doctor if skin irritation persists.

**In case of eye contact**

In case of contact with eyes rinse thoroughly with water.

Call for a doctor immediately.



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**In case of ingestion**

Do not induce vomiting.

Seek medical advice immediately.

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

**Physician's information / possible symptoms**

Coughing

vomiting

Respiratory complaints

skin irritation

**Physician's information / possible dangers**

Risk of pulmonary irritation

allergic reactions

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

**Treatment (Advice to doctor)**

Keep under medical supervision for at least 48 hours.

Symptoms may not occur until several hours.

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**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

ABC powder

Carbon dioxide

Water spray jet

**Unsuitable extinguishing media**

Full water jet

**5.2. Special hazards arising from the substance or mixture**

Danger of bursting

In case of fire formation of dangerous gases possible.

Nitrogen oxides (NO<sub>x</sub>)

Carbon monoxide (CO)

Carbon dioxide (CO<sub>2</sub>)

Hydrogen cyanide (HCN)

**5.3. Advice for firefighters**

**Special protective equipment for fire-fighters**

Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus.

Do not inhale explosion and/or combustion gases.

**Additional information**

Cool endangered containers with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**

Ensure adequate ventilation.

Keep people away and stay on the upwind side.

Use personal protective clothing.

Keep away sources of ignition.

Use breathing apparatus if exposed to vapours/dust/aerosol.



### 6.2. Environmental precautions

Inform pollution control authorities if product gets into the sewerage systems or open waters.  
Do not discharge into the drains/surface waters/groundwater.

### 6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).  
Disposal according to regulations.  
Ventilate area concerned

### Additional Information

Sort out leaky cans and dispose according to regulations.

### 6.4. Reference to other sections

Safe handling: see section 7

Disposal: see section 13

Personal protection equipment: see section 8

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Keep container tightly closed.

Avoid formation of aerosols.

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

#### General protective measures

Do not inhale vapours.

Avoid contact with eyes and skin

Ensure sufficient ventilation.

#### Hygiene measures

At work do not eat, drink and smoke.

Remove soiled or soaked clothing immediately.

Work in rooms with good ventilation.

Wash hands before breaks and after work.

#### Advice on protection against fire and explosion

Protect from heat and sunlight.

Pay attention to general rules of internal fire prevention.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep only in original container.

#### Advice on storage compatibility

Do not store with acids or alkalis.

Do not store together with animal feedstuffs.

Do not store together with food.

#### Further information on storage conditions

Store closed container at cool and aired place.

Protect from frost.

Protect from heat and direct solar radiation.

Store in a dry place.

### 7.3. Specific end use(s)

#### Recommendation(s) for intended use

See section 1.2

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****DNEL-/PNEC-values****DNEL worker**

CAS No	Substance name	Value	Code	Remark
584-84-9	4-methyl-m-phenylene diisocyanate	0,14 mg/m <sup>3</sup>	DNEL acute inhalative (local)	
		0,035 mg/m <sup>3</sup>	DNEL long-term inhalative (local)	
		0,035 mg/m <sup>3</sup>	DNEL long-term inhalative (systemic)	
		0,14 mg/m <sup>3</sup>	DNEL acute inhalative (systemic)	

**PNEC**

CAS No	Substance name	Value	Code	Remark
584-84-9	4-methyl-m-phenylene diisocyanate	0,00125 mg/l	PNEC aquatic, marine water	
		0,013 mg/l	PNEC aquatic, freshwater	

**Additional advice**

The statutory local and national regulations have to be observed.

**8.2. Exposure controls****Respiratory protection**

If ventilation insufficient, wear respiratory protection.

Short-term: filter apparatus, filter A2/P2, otherwise environment-independent breathing apparatus.

**Hand protection**

In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: Nitrile rubber; 0,4mm; 480min;60min.

**Eye protection**

tightly fitting goggles

**Other protection measures**

protective clothing

**Appropriate engineering controls**

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties****Appearance**

liquid

**Colour**

transparent

**Odour**

characteristic

**Odour threshold**



## Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

Printed 05.08.2019

revision 11.10.2017 (GB) Version 1.2

**Urethane Resin 45-60-80**

not determined

**Important health, safety and environmental information**

	Value	Temperature	at	Method	Remark
<b>pH value</b>	not determined				
<b>boiling point</b>	> 300 °C			DIN 53171	
<b>melting point</b>	not determined				
<b>Flash point</b>	> 100 °C			closed cup	
<b>Vapourisation rate</b>	not determined				
<b>Flammable (solid)</b>	not applicable				
<b>Flammability (gas)</b>	not applicable				
<b>Ignition temperature</b>	> 200 °C				estimate
<b>Self ignition temperature</b>					The product is not self-igniting.
<b>Lower explosion limit</b>	not determined				
<b>Upper explosion limit</b>	not determined				
<b>Vapour pressure</b>	not determined				
<b>Relative density</b>	1,1 g/cm <sup>3</sup>			ISO 2811	
<b>Vapour density</b>	not determined				
<b>Solubility in water</b>					No or low immiscibility
<b>Solubility/other</b>	not determined				
<b>Partition coefficient n-octanol/water (log P O/W)</b>	not determined				
<b>Decomposition temperature</b>	not determined				
<b>Viscosity dynamic</b>	6750 mPa*s	20 °C		ISO 9371	
<b>Viscosity kinematic</b>	not determined				
<b>Oxidising properties</b>	No information available.				
<b>Explosive properties</b>	no				

**9.2. Other information**

No information available.



## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No information available.

### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

Reactions with strong acids and alkalis.

### 10.4. Conditions to avoid

Keep away from heat.

### 10.5. Incompatible materials

#### Substances to avoid

Alkali (lye)

Acid

### 10.6. Hazardous decomposition products

Hydrogen cyanide (hydrocyanic acid)

Nitrogen oxides (NO<sub>x</sub>)

Carbon monoxide and carbon dioxide.

### Thermal decomposition

Remark No decomposition if used as directed.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
<b>LD50 acute oral</b>	> 5001 mg/kg	rat		CAS: 37273-56-6
<b>LD50 acute dermal</b>	> 9400 mg/kg	rabbit		CAS: 584-84-9
<b>LC50 acute inhalation</b>	0,107 mg/l (4 h)	rat	OECD 403	CAS: 584-84-9
<b>Skin irritation</b>	low irritant effect - not necessary to label			
<b>Eye irritation</b>	irritant			
<b>Skin sensitization</b>	sensitizing			
<b>Sensitization respiratory system</b>	sensitizing			

#### Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
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Value	Species	Method	Validation
<b>Mutagenicity</b>			No experimental information on genotoxicity in vitro available.
<b>Reproduction-Toxicity</b>			No indications of toxic effects were observed in reproduction studies in animals.
<b>Carcinogenicity</b>			No indications of carcinogenic effects are available from long-term trials.

**Experiences made from practice**

Frequent and / or prolonged contact may lead to skin irritation  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Sensitization through inhalation possible.  
Sensitization through skin contact possible.  
Irritates respiratory tract.  
Irritates mucous membranes.  
Causes eye irritation.

**Additional information**

The product is to be handled with the caution usual with chemicals.  
Other hazardous properties may not be excluded.  
The product has not been tested. The information is derived from the properties of the individual components.

**SECTION 12: Ecological information****12.1. Toxicity****Ecotoxicological effects**

	Value	Species	Method	Validation
<b>Fish</b>	LC50 133 mg/l (96 h)	rainbow trout	OECD 203, CAS: 584-84-9	Ecotoxicological tests carried out to determine the properties of a comparable product
<b>Daphnia</b>	EC50 12,5 mg/l (48 h)	Daphnia magna	OECD 202, CAS: 584-84-9	Ecotoxicological tests carried out to determine the properties of a comparable product
<b>Algae</b>	ErC50 3230 mg/l (96 h)	Skeletonema costatum	OECD 201, CAS: 584-84-9	Ecotoxicological tests carried out to determine the properties of a comparable product
<b>Bacteria</b>	EC50 > 10000 mg/l (3 h)	activated sludge	OECD 209, CAS: 37273-56-6	Ecotoxicological tests carried out to determine the properties of a comparable product

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

The product has not been tested. Because of the product's consistency and low solubility in water bioavailability is not likely.

**12.4. Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**



The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6. Other adverse effects

#### General regulation

Do not allow uncontrolled leakage of product into the environment.

Product is not allowed to be discharged into the ground water or aquatic environment.

Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.

The ecotoxic effect of the product has not been tested. The information on this is given on the basis of details in the literature.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Recommendations for the product

Remove in accordance with local official regulations.

Dispose of as hazardous waste.

#### Recommendations for packaging

Dispose of according to the local waste regulations.

Packaging that cannot be cleaned should be disposed of like the product.

#### General information

Assignment to a waste code number / waste identification according to the EWC is to be carried out on a sector or process-specific basis.

## SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	-	-	-
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)	-	-	-
14.4. Packing group	-	-	-
14.5. Environmental hazards	-	-	-

### 14.6. Special precautions for user

No information available.

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

not applicable

#### Transport/further information

No dangerous goods as defined by the transport regulations - ADR/RID, IMDG, ICAO/IATA-DGR.

## SECTION 15: Regulatory information

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

#### VOC standard

VOC content 0 %



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## 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

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## SECTION 16: Other information

### Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

For industrial use only.

### Further information

Each user is responsible for the implementation of the national special regulations.

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Please observe the following disclaimer! --- Our safety data sheets have been compiled according to effective EU-directives, WITHOUT taking into account the special national directives concerning the handling of hazardous substances.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 1.1

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H331 Toxic if inhaled.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
- H412 Harmful to aquatic life with long lasting effects.