

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Name of product Urethan 80 Putty Hardener
Code-Nr. 105182

**1.2. Relevant identified uses of the substance or mixture and uses advised against
Recommended intended purpose(s)**

2-K Urethan - Resin

The product is intended only for the industrial/professional use.

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

Acute Tox. 4	H332
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Resp. Sens. 1	H334
Skin Sens. 1	H317
Carc. 2	H351

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
STOT SE 3	H335	
STOT RE 2	H373	

Hazard Statements

H315	Causes skin irritation.
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.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements
Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]


GHS07



GHS08

Signal word

Danger

Hazard Statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
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H335	May cause respiratory irritation.
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Precautionary Statements

P102	Keep out of reach of children.
P201	Obtain special instructions before use.
P260	Do not breathe vapours/spray.
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.
P284	[In case of inadequate ventilation] wear respiratory protection.
P304 + P340	IF INHALED: Remove person to fresh air and keep 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.
P308 + P311	IF exposed or concerned: Call a POISON CENTER/doctor.
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.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.



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P501 Dispose of contents/container to hazardous or special waste collection point.

! Hazardous ingredients for labeling

4,4' Methylendiphenyldiisocyanat, Oligomere, 4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with a-hydro-w-hydroxypoly(oxy-1,2-ethanediyl)

Special rules for supplemental label elements for certain mixtures

Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.

This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

Contains isocyanates. May produce an allergic reaction.

Additional information

Remark

For industrial use only.

2.3. Other hazards

Information pertaining to special dangers for human and environment

Harmful by inhalation.

Danger of serious damage to health by prolonged exposure.

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

Description

Isocyanate

Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
25686-28-6	500-040-3	4,4' Methylendiphenyldiisocyanat, Oligomere	25 - 50	Skin Irrit. 2, H315 / Skin Sens. 1, H317 / Eye Irrit. 2, H319 / Acute Tox. 4, H332 / Resp. Sens. 1, H334 / STOT SE 3, H335 / Carc. 2, H351 / STOT RE 2, H373
9048-57-1	500-028-8	4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with a-hydro-w-hydroxypoly(oxy-1,2-ethanediyl)	50 - 75	Acute Tox. 4, H332 / Skin Irrit. 2, H315 / Eye Irrit. 2, H319 / Resp. Sens. 1, H334 / Skin Sens. 1, H317 / STOT SE 3, H335 / STOT RE 2, H373

REACH

CAS No	Name	REACH registration number
25686-28-6	4,4' Methylendiphenyldiisocyanat, Oligomere	01-2119457013-49
9048-57-1	4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with a-hydro-w-hydroxypoly(oxy-1,2-ethanediyl)	not subject to registration

! Additional advice

Diphenylmethan-4,4'-diisocyanat

Diphenylmethan-2,4'-diisocyanat

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.
If intensive inhalation of fumes seek medical treatment immediately.
In the event of symptoms refer for medical treatment.

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 with plenty of water carefully. In the event of persistent symptoms seek medical treatment.

In case of ingestion

Do not induce vomiting.
Call for a doctor immediately.
Rinse out mouth and give plenty of water to drink.

4.2. Most important symptoms and effects, both acute and delayed**Physician's information / possible symptoms**

Shortness of breath
Respiratory complaints
Asthmatic complaints
skin irritation

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.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Alcohol-resistant foam
Dry fire-extinguishing substance
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.
In the event of fire the following can be released:
Nitrogen oxides (NO_x)
Carbon monoxide (CO)
Carbon dioxide (CO₂)
Hydrogen cyanide (HCN)

5.3. Advice for firefighters**Special protective equipment for fire-fighters**

Use breathing apparatus with independent air supply (isolated).

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

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

Collect contaminated firefighting water separately, must not be discharged into the drains.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Ensure adequate ventilation.

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.

Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

Do not allow to dry out.

Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).

After approx. 1 hour, transfer to suitable drum containers. Do not close these (likelihood of CO₂ production). Keep damp in the open air in a safe place for several days.

Ventilate area concerned

After taking up the material dispose according to regulation.

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

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.

Open and handle container with care!

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

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 in closed original container.

Keep only in original container.

Advice on storage compatibility

Do not store with acids or alkalies.

Do not store with oxidizing agents.

Do not store together with animal feedstuffs.

Do not store together with food.

Further information on storage conditions

Keep container tightly closed and store at cool and aired place.

Protect from frost.

Protect from heat and direct solar radiation.

Protect from wetness.

Storage temperature may not fall below 10°C (=50°F).

Storage temperature may not exceed 40°C (=104°F).

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
25686-28-6	4,4' Methylendiphenyldiisocyanat, Oligomere	0,05 mg/m ³	DNEL long-term inhalative (local)	
		0,1 mg/m ³	DNEL acute inhalative (systemic)	
		28,7 mg/cm ³	DNEL acute dermal, short-term (local)	
		50 mg/kg bw/day	DNEL acute dermal, short-term (systemic)	
		0,1 mg/m ³	DNEL acute inhalative (local)	
		0,05 mg/m ³	DNEL long-term inhalative (systemic)	

PNEC

CAS No	Substance name	Value	Code	Remark
25686-28-6	4,4' Methylendiphenyldiisocyanat, Oligomere	0,1 mg/l	PNEC aquatic, marine water	
		1 mg/l	PNEC aquatic, freshwater	
		0,1 mg/l	PNEC sewage treatment plant (STP)	

Additional advice

The statutory local and national regulations have to be observed.

**Urethan 80 Putty Hardener****8.2. Exposure controls****Respiratory protection**

If ventilation insufficient, wear respiratory protection.

In case of insufficient ventilation or long-term effect use breathing apparatus.

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

Hand protection

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: Butyl rubber; 0,7 mm; 480min; 60min, "Butoject 898" from KCL; Email: Vertrieb@kcl.de

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

Chemical protective gloves must be chosen carefully in view of their design and depending on the dependence on the concentration and amounts of dangerous goods used in the specific working tasks.

Eye protection

tightly fitting goggles

Other protection measures

Long-sleeved protective clothing

Appropriate engineering controls

Sufficient ventilation and exhaustion.

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

liquid

Colour

yellowish

Odour

aromatic

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not determined				
boiling point	not determined				
melting point	not determined				
Flash point	> 200 °C				
Vapourisation rate	not determined				
Flammable (solid)	not applicable				
Flammability (gas)	not applicable				
Ignition temperature	not determined				
Self ignition temperature					The product is not self-igniting.
Lower explosion limit	not determined				
Upper explosion limit	not determined				



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	Value	Temperature	at	Method	Remark
Vapour pressure	< 0,01 hPa	20 °C			
Relative density	1,19 - 1,24 g/ cm ³	20 °C			
Vapour density	not determined				
Solubility in water					insoluble, reacts with water
Solubility/other	not determined				
Partition coefficient n- octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity dynamic	20 - 40 mPa*s	20 °C		DIN 51377	
Viscosity kinematic	not determined				
Oxidising properties No information available.					
Explosive properties no					
9.2. Other information No information available.					

SECTION 10: Stability and reactivity**10.1. Reactivity**

> 200 °C Abspaltung von CO₂
Risk of polymerisation.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Exothermic reaction with alcohols and amines.
exothermic reaction
Reactions with water.

10.4. Conditions to avoid

Keep away from heat.
Moisture.

The reaction with humidity from the air and/or water may cause an increase of atmosphere pressure inside the container through the carbon dioxide (risk of bursting).

10.5. Incompatible materials**Substances to avoid**

Alkali (lye), concentrated
Air, humid
Acid, concentrated
Oxidising agent, strong



Water
Heat.

10.6. Hazardous decomposition products

Hydrogen cyanide (hydrocyanic acid)
Carbon monoxide and carbon dioxide.
Isocyanates
Nitrous oxides (NO_x)

Thermal decomposition

Remark thermal decomposition >200°C

Additional information

Danger of bursting of closed systems to vigorous exothermic polymerization. Avoid uncontrolled polymerization.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity/Irritation/Sensitization**

	Value/Validation	Species	Method	Remark
LD50 acute oral	> 2000 mg/kg	rat		CAS: 9048-57-1
LD50 acute dermal	> 9400 mg/kg	rabbit		CAS: 25686-28-6
LC50 acute inhalation	1,5 mg/l ()		Aerosol	ATE
Skin irritation	irritant			
Eye irritation	irritant			
Skin sensitization	sensitizing			
Sensitization respiratory system	sensitizing			

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Mutagenicity				No experimental information on genotoxicity in vitro available.
Reproduction-Toxicity				No indications of toxic effects were observed in reproduction studies in animals.
Carcinogenicity				Indications of possible carcinogenic effects in animal studies are available.

Specific target organ toxicity (repeated exposure)

May cause damage to organs, if longer exposed.

Toxicity test (Additional information)

Indications of possible carcinogenic effects in animal studies are available.

**Experiences made from practice**

Risk of strong health injuries in case of long-term exposition.

Sensitization through inhalation possible.

Sensitization through skin contact possible.

Irritates respiratory tract.

Irritates mucous membranes.

Irritates eyes and skin.

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 products of similar composition.

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

	Value	Species	Method	Validation
Fish	LC50 > 1000 mg/l (96 h)	zebra fish		CAS: 9048-57-1
Algae	ErC50 > 1640 mg/l (72 h)	Green algae		CAS: 9048-57-1
Bacteria	EC20 > 100 mg/l (3 h)	activated sludge		CAS: 9048-57-1

12.2. Persistence and degradability

	Elimination rate	Method of analysis	Method	Validation
Biological degradability	0 % (28 d) CAS: 25686-28-6		OECD 302 C	not degradable
Degradability	0 % (28 d) CAS: 9048-57-1		OECD 302 C	not degradable

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.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste code No.	Name of waste
08 05 01*	waste isocyanates

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.

**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****! Application restrictions**

REACH (Annex XVII) - Entry 56: Diphenylmethan-4,4'-diisocyanat; Diphenylmethan-2,4'-diisocyanat

VOC standard

VOC content 0 %

15.2. Chemical Safety Assessment

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

! 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.



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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: 1.2

- H315 Causes skin irritation.
- 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.
- 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).
- H373 May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).