

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

WEICON WR Hardener

Code-Nr. 103002

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Uses advised against****Remark**

Do not use for private purposes (household).

**Recommended intended purpose(s)**

2-Component Epoxy Resin - Hardener Component

**1.3. Details of the supplier of the safety data sheet****Distributor**

WEICON GmbH &amp; 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 &amp; 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	H302	
Acute Tox. 4	H332	

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Skin Corr. 1B	H314	
Eye Dam. 1		
Skin Sens. 1	H317	
Aquatic Chronic 3	H412	

**Hazard Statements**

H302 + H332	Harmful if swallowed or if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

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


GHS05



GHS07

**Signal word**

Danger

**Hazard Statements**

H302 + H332	Harmful if swallowed or if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

**Precautionary Statements**

P102	Keep out of reach of children.
P260	Do not breathe vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection.
P281	Use personal protective equipment as required.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container to hazardous or special waste collection point.

**Hazardous ingredients for labeling**

3-Aminomethyl-3,5, 5-trimethylcyclohexylamin, benzyl-alcohol, M-phenylenebis (methylamine), trimethylhexane-1,6-diamine

**Additional information****Remark**

For industrial use only.

**2.3. Other hazards****Information pertaining to special dangers for human and environment**

Harmful by inhalation and if swallowed.

Risk of serious damage to eyes.

**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**

Modified amine hardener.

**! Hazardous ingredients**

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
9003-36-5	500-006-8	bisphenol f epoxy resin	1 < 5	Skin Irrit. 2, H315 / Skin Sens. 1, H317 / Aquatic Chronic 2, H411
100-51-6	202-859-9	benzyl-alcohol	40 < 45	Acute Tox. 4, H302; H332 / Eye Irrit. 2, H319
2855-13-2	220-666-8	3-Aminomethyl-3,5, 5-trimethylcyclohexylamin	30 < 35	Acute Tox. 4, H302, H312 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / Skin Sens. 1, H317 / Aquatic Chronic 3, H412
1477-55-0	216-032-5	M-phenylenebis (methylamine)	1 < 5	Acute Tox. 4, H302, H332 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / Skin Sens. 1, H317 / Aquatic Chronic 3, H412 / , EUH071
25620-58-0	247-134-8	trimethylhexane-1,6-diamine	10 < 15	Acute Tox. 4, H302 / Skin Corr. 1C, H314 / Eye Dam. 1, H318 / Skin Sens. 1, H317 / Aquatic Chronic 3, H412

**REACH**

CAS No	Name	REACH registration number
9003-36-5	bisphenol f epoxy resin	01-2119454392-40
100-51-6	benzyl-alcohol	01-2119492630-38
2855-13-2	3-Aminomethyl-3,5, 5-trimethylcyclohexylamin	01-2119514687-32
1477-55-0	M-phenylenebis (methylamine)	01-2119480150-50
25620-58-0	trimethylhexane-1,6-diamine	not subject to registration

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

Remove contaminated soaked clothing immediately.

In case of allergic reactions, specially at respiratory tract, seek medical treatment immediately.

Adhere to personal protective measures when giving first aid.



**In case of inhalation**

Remove the casualty into fresh air and keep him immobile.

Ensure of fresh air.

No mouth-to-mouth resuscitation by first aid.

Seek medical treatment immediately.

Artificial respiration with respiration bag or respirator.

**In case of skin contact**

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

Seek medical treatment immediately.

**In case of eye contact**

In case of contact with eyes rinse thoroughly with water.

Call for a doctor immediately.

**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**

Unconsciousness

Coughing

vomiting

Respiratory complaints

Headache

Skin burns

**Physician's information / possible dangers**

Causes serious eye damage.

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

**Treatment (Advice to doctor)**

If swallowed or in the event of vomiting, risk of entering the lungs.

Keep under medical supervision for at least 48 hours.

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**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

Fire-extinguishing activities according to surrounding.

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**

In case of fire formation of dangerous gases possible.

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

Carbon monoxide (CO)

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

**5.3. Advice for firefighters**

**Special protective equipment for fire-fighters**

Wear full protective clothing.



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.

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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.

Use personal protective clothing.

Keep away sources of ignition.

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

**6.2. Environmental precautions**

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**

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

After taking up the material dispose according to regulation.

**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**

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**

Avoid contact with eyes and skin

Do not inhale gases/vapours/aerosols.

**Hygiene measures**

At work do not eat, drink and smoke.

Remove 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.

Ventilate store-rooms thoroughly.

**Advice on storage compatibility**

Do not store with acids or alkalies.

Do not store together with animal feedstuffs.



Do not store together with food.  
Do not store together with oxidizing agents.

**Further information on storage conditions**

Keep container tightly closed and store at cool and aired place.  
Protect from heat and direct solar radiation.  
Storage temperature between 2°C to 40°C  
Store in a dry place.  
Recommended storage temperature: room temperature.

**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
100-51-6	benzyl-alcohol	47 mg/kg bw/day	DNEL acute dermal, short-term (systemic)	
		9,5 mg/kg bw/day	DNEL long-term dermal (systemic)	
		90 mg/m <sup>3</sup>	DNEL long-term inhalative (systemic)	
		450 mg/m <sup>3</sup>	DNEL acute inhalative (systemic)	
1477-55-0	M-phenylenebis (methylamine)	0,2 mg/m <sup>3</sup>	DNEL long-term inhalative (local)	
		0,33 mg/kg	DNEL long-term dermal (systemic)	
		1,2 mg/m <sup>3</sup>	DNEL long-term inhalative (systemic)	
2855-13-2	3-Aminomethyl-3,5, 5-trimethylcyclohexylamin	20,1 mg/kg bw/day	DNEL acute inhalative (systemic)	
		20,1 mg/m <sup>3</sup>	DNEL acute inhalative (local)	
9003-36-5	bisphenol f epoxy resin	29,39 mg/m <sup>3</sup>	DNEL long-term inhalative (systemic)	
		104,15 mg/kg	DNEL long-term dermal (systemic)	
		0,0083 mg/ cm <sup>2</sup>	DNEL acute dermal, short-term (local)	

**PNEC**

CAS No	Substance name	Value	Code	Remark
100-51-6	benzyl-alcohol	0,456 mg/kg	PNEC soil, freshwater	
		39 mg/l	PNEC sewage treatment plant (STP)	
		0,527 mg/kg	PNEC sediment, marine water	
		5,27 mg/kg	PNEC sediment, freshwater	
		0,1 mg/l	PNEC aquatic, marine water	
		1 mg/l	PNEC aquatic, freshwater	
1477-55-0	M-phenylenebis (methylamine)	0,43 mg/kg	PNEC sediment, freshwater	
		0,009 mg/l	PNEC soil, marine water	



## Safety Data Sheet according to Regulation (EC)

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**WEICON WR Hardener****DNEL-/PNEC-values (continued)**

CAS No	Substance name	Value	Code	Remark
2855-13-2	3-Aminomethyl-3,5, 5-trimethylcyclohexylamin	0,094 mg/l	PNEC soil, freshwater	
		10 mg/l	PNEC sewage treatment plant (STP)	
		1,121 mg/kg	PNEC soil, freshwater	
		0,578 mg/kg	PNEC sediment, marine water	
		3,18 mg/l	PNEC sewage treatment plant (STP)	
		0,006 mg/l	PNEC aquatic, marine water	
		0,06 mg/l	PNEC aquatic, freshwater	
9003-36-5	bisphenol f epoxy resin	5,784 mg/kg	PNEC sediment, freshwater	
		11 mg/kg	PNEC Secondary Poisoning	
		10 mg/l	PNEC sewage treatment plant (STP)	
		0,294 mg/kg	PNEC sediment, freshwater	
		0,0006 mg/l	PNEC aquatic, marine water	

**Additional advice**

The statutory local and national regulations have to be observed.

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

If ventilation insufficient, wear respiratory protection.

Breathing apparatus in the event of aerosol or mist formation.

Kurzzeitig Filtergerät, Kombinationsfilter A2-P2

**Hand protection**

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.

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.

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: butyl rubber, 0,7mm; 480min

**Eye protection**

tightly fitting goggles

**Other protection measures**

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**

light yellow

**Odour**

characteristic

**Odour threshold**



not determined

**Important health, safety and environmental information**

	Value	Temperature	at	Method	Remark
<b>pH value</b>	> 7				
<b>boiling point</b>	not determined				
<b>melting point</b>	not determined				
<b>Flash point</b>	> 100 °C				
<b>Vapourisation rate</b>	not determined				
<b>Flammable (solid)</b>	not determined				
<b>Flammability (gas)</b>	not determined				
<b>Ignition temperature</b>	> 380 °C				
<b>Self ignition temperature</b>					The product is not self-igniting.
<b>Lower explosion limit</b>	1,3 Vol-%				
<b>Upper explosion limit</b>	13 Vol-%				
<b>Vapour pressure</b>	ca. 0,1 hPa	20 °C			
<b>Relative density</b>	1 g/cm <sup>3</sup>	25 °C			
<b>Vapour density</b>	not determined				
<b>Solubility in water</b>		20 °C			partially soluble
<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>	150 mPa*s	25 °C			
<b>Viscosity kinematic</b>	not determined	40 °C			

**Oxidising properties**

No information available.

**Explosive properties**

No information available.

**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**

Strong exothermic reaction with acids.

Reactions with strong acids and alkalis.

Reactions with oxidising agents.

**10.4. Conditions to avoid**

Keep away from heat.

**10.5. Incompatible materials****Substances to avoid**

Alkali (lye), concentrated

Acid, concentrated

Oxidising agent, strong

**10.6. Hazardous decomposition products**

Carbon monoxide and carbon dioxide.

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

Toxic gases/vapours

Ammonia

**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>	989,9 mg/kg			ATE
<b>LD50 acute dermal</b>	> 2000 mg/kg			ATE
<b>LC50 acute inhalation</b>	2,98 mg/l ( )		Aerosol	ATE
<b>Skin irritation</b>	corrosive	rabbit		
<b>Eye irritation</b>	corrosive	rabbit eye	OECD 405 Acute Eye Irritation/ Corrosion	
<b>Skin sensitization</b>	sensitizing	Guinea pig	OECD 406 Skin Sensitization	

**Subacute Toxicity - Carcinogenicity**

	Value	Species	Method	Validation
<b>Chronic Toxicity</b>	NOAEL 60 mg/kg (90 d) Repeated Dose 90-Day Oral Toxicity Study in Rodents OECD 408	CAS: 2855-13-2		-
<b>Mutagenicity</b>	CAS: 100-51-6		OECD 474 Mammalian Erythrocyte Micronucleus Test	No mutagenity, after different in-vitro studies.
<b>Carcinogenicity</b>	Carcinogenicity Studies / 5d/week / 103 weeks CAS: 100-51-6		OECD 453 Combined Chronic Toxicity/ Carcinogenicity Studies	No indications of carcinogenic effects are available from long-term trials.

**Experiences made from practice**

Risk of strong health injuries in case of long-term exposition.  
Sensitization through skin contact possible.  
Inhalation can cause damage to the respiratory tract or lungs.  
Causes corrosions.  
Risk of strong eye injuries.  
Irritates respiratory tract.

**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 87,6 mg/l (96 h)	Oryziatinae, e.g. Oryzias latipes	OECD 203	CAS: 1477-55-0
<b>Daphnia</b>	EC50 15,2 mg/l (48 h)	Daphnia magna	OECD 202	CAS: 1477-55-0
<b>Algae</b>	ErC50 33,3 mg/l (72 h)	Green algae		CAS: 1477-55-0
<b>Bacteria</b>	EC10 1120 mg/l (18 h)	activated sludge		CAS: 2855-13-2

**12.2. Persistence and degradability**

	Elimination rate	Method of analysis	Method	Validation
<b>Biological degradability</b>	49 % (28 d) CAS: 1477-55-0		OECD 301 B	Biodegradable



	Elimination rate	Method of analysis	Method	Validation
<b>Degradability</b>	7 % (28 d) CAS: 25620-58-0			not readily 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

Harmful to aquatic life with long lasting effects.

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
<b>14.1. UN number</b>	2735	2735	2735
<b>14.2. UN proper shipping name</b>	AMINES, LIQUID, CORROSIVE, N.O.S. (3-Aminomethyl-3,5, 5-trimethylcyclohexylamin; Trimethylhexane-1, 6-diamine)	AMINES, LIQUID, CORROSIVE, N.O.S. (3-Aminomethyl-3,5, 5-trimethylcyclohexylamin; trimethylhexane-1, 6-diamine)	Amines, liquid, corrosive, n.o.s. (3-Aminomethyl-3,5, 5-trimethylcyclohexylamin; trimethylhexane-1, 6-diamine)
<b>14.3. Transport hazard class(es)</b>	8	8	8
<b>14.4. Packing group</b>	II	II	II
<b>14.5. Environmental hazards</b>	No	No	No

**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

**Land and inland navigation transport ADR/RID**

Hazard label(s) 8

tunnel restriction code E

Classification code C7

**Transport/further information**

Marine pollutant: NO

**! SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****VOC standard**

VOC content 79,8 %

VOC value 798 g/L

**15.2. Chemical Safety Assessment**

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

**SECTION 16: Other information****Training advice**

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

**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

EUH071	Corrosive to the respiratory tract.
H302	Harmful if swallowed.
H302,	-?-
H302,	-?-
H302;	-?-
H332	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.



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H412 Harmful to aquatic life with long lasting effects.