



! 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 & 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	H302	
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Acute Tox. 4	H332	
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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.

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_x)

Carbon monoxide (CO)

Carbon dioxide (CO₂)

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.

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

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 alkalis.

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 ³	DNEL long-term inhalative (systemic)	
		450 mg/m ³	DNEL acute inhalative (systemic)	
1477-55-0	M-phenylenebis (methylamine)	0,2 mg/m ³	DNEL long-term inhalative (local)	
		0,33 mg/kg	DNEL long-term dermal (systemic)	
		1,2 mg/m ³	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 ³	DNEL acute inhalative (local)	
9003-36-5	bisphenol f epoxy resin	29,39 mg/m ³	DNEL long-term inhalative (systemic)	
		104,15 mg/kg	DNEL long-term dermal (systemic)	
		0,0083 mg/ cm ²	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	



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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
pH value	> 7				
boiling point	not determined				
melting point	not determined				
Flash point	> 100 °C				
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	> 380 °C				
Self ignition temperature					The product is not self-igniting.
Lower explosion limit	1,3 Vol-%				
Upper explosion limit	13 Vol-%				
Vapour pressure	ca. 0,1 hPa	20 °C			
Relative density	1 g/cm ³	25 °C			
Vapour density	not determined				
Solubility in water		20 °C			partially soluble
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity dynamic	150 mPa*s	25 °C			
Viscosity kinematic	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_x)

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

**Subacute Toxicity - Carcinogenicity**

	Value	Species	Method	Validation
Chronic Toxicity	NOAEL 60 mg/kg (90 d) Repeated Dose 90-Day Oral Toxicity Study in Rodents OECD 408	CAS: 2855-13-2		-
Mutagenicity	CAS: 100-51-6		OECD 474 Mammalian Erythrocyte Micronucleus Test	No mutagenity, after different in-vitro studies.
Carcinogenicity	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
Fish	LC50 87,6 mg/l (96 h)	Oryziatinae, e.g. Oryzias latipes	OECD 203	CAS: 1477-55-0
Daphnia	EC50 15,2 mg/l (48 h)	Daphnia magna	OECD 202	CAS: 1477-55-0
Algae	ErC50 33,3 mg/l (72 h)	Green algae		CAS: 1477-55-0
Bacteria	EC10 1120 mg/l (18 h)	activated sludge		CAS: 2855-13-2

12.2. Persistence and degradability

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



	Elimination rate	Method of analysis	Method	Validation
Degradability	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
14.1. UN number	2735	2735	2735
14.2. UN proper shipping name	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)
14.3. Transport hazard class(es)	8	8	8
14.4. Packing group	II	II	II
14.5. Environmental hazards	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.