

**! 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**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

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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Skin Corr. 1B	H314
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Eye Dam. 1	H318
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Skin Sens. 1	H317
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Aquatic Chronic 3	H412
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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.

- H318 Causes serious eye damage.
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 dust/fume/gas/mist/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/protective clothing/eye protection/face protection.
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.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
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.
P310 Immediately call a POISON CENTER or doctor/physician.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.
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

4,4'-isopropylidenediphenol, benzyl-alcohol

2.3. Other hazards

Information pertaining to special dangers for human and environment

Harmful by inhalation and if swallowed.

**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**

Aliphatic and cyclo-aliphatic polyamine.

Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
100-51-6	202-859-9	benzyl-alcohol	30 - 60	Acute Tox. 4, H302; H332 / Eye Irrit. 2, H319
2855-13-2	220-666-8	3-Aminomethyl-3,5, 5-trimethylcyclohexylamin	30 - 60	Acute Tox. 4, H302, H312 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / Skin Sens. 1, H317 / Aquatic Chronic 3, H412
80-05-7	201-245-8	4,4'-Isopropylidendiphenol	1 < 3	Eye Dam. 1, H318 / Skin Sens. 1, H317 / Repr. 2, H361f / STOT SE 3, H335 / Aquatic Chronic 2, H411
25620-58-0	247-134-8	trimethylhexane-1,6-diamine	7 - 13	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
80-05-7	4,4'-Isopropylidendiphenol	01-2119457856-23

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.

Immediate medical treatment necessary, as untreated burns can result in slow-healing wounds.

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
Asthmatic complaints
Allergic symptoms
Skin burns
Confusion
Gastrointestinal complaints
skin irritation

Physician's information / possible dangers

allergic reactions
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.

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

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.

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

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.

It is essential for pregnant women to avoid inhaling the product and not to let it come in contact with the skin.

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	450 mg/m ³	DNEL acute inhalative (systemic)	
		9,5 mg/kg bw/day	DNEL long-term dermal (systemic)	
		90 mg/m ³	DNEL long-term inhalative (systemic)	
		47 mg/kg bw/day	DNEL acute dermal, short-term (systemic)	
2855-13-2	3-Aminomethyl-3,5, 5-trimethylcyclohexylamin	20,1 mg/m ³	DNEL acute inhalative (local)	
		20,1 mg/kg bw/day	DNEL acute inhalative (systemic)	

PNEC

CAS No	Substance name	Value	Code	Remark
100-51-6	benzyl-alcohol	0,527 mg/kg	PNEC sediment, marine water	
		0,456 mg/kg	PNEC soil, freshwater	
		5,27 mg/kg	PNEC sediment, freshwater	
		39 mg/l	PNEC sewage treatment plant (STP)	
		0,1 mg/l	PNEC aquatic, marine water	
		1 mg/l	PNEC aquatic, freshwater	
2855-13-2	3-Aminomethyl-3,5, 5-trimethylcyclohexylamin	0,06 mg/l	PNEC aquatic, freshwater	
		0,006 mg/l	PNEC aquatic, marine water	
		3,18 mg/l	PNEC sewage treatment plant (STP)	
		5,784 mg/kg	PNEC sediment, freshwater	
		0,578 mg/kg	PNEC sediment, marine water	
		1,121 mg/kg	PNEC soil, 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.

Selection of the appropriate filter type depends on the quantity and chemicals handled at the workplace. Contact supplier of respiratory protective equipment or more information about filter properties.

Breathing apparatus in the event of aerosol or mist formation.

Hand protection

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.

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

hardly noticeable

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	ca. 11	20			1:1 in water
boiling point	> 200 °C				
melting point	not determined				
Flash point	108 °C			DIN 51758	Pensky-Martens Closed Cup
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature	not determined				
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	ca. 6 Pa	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 OW)	not determined				



	Value	Temperature	at	Method	Remark
Decomposition temperature	> 200 °C				
Viscosity dynamic	30-70 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

No information available.

10.3. Possibility of hazardous reactions

Reactions with strong acids and alkalies.

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 (NOx)

Toxic gases/vapours

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	1030 mg/kg	rat		CAS: 2855-13-2
LD50 acute dermal	6400 mg/kg	rabbit		CAS: 80-05-7



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	Value/Validation	Species	Method	Remark
LC50 acute inhalation	> 170 mg/m ³ (6 h)	rat		CAS: 80-05-7
Skin irritation	corrosive	rabbit	OECD 404	Toxicology tests with the product
Eye irritation	corrosive	rabbit eye	OECD 405	Toxicology test with the product.
Skin sensitization	sensitizing	Guinea pig	OECD 406	Toxicology test with the product.

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

No mutagenity, after different in-vitro studies.

Reproduction-Toxicity

No indications of toxic effects were observed in reproduction studies in animals.

Carcinogenicity

No indications of carcinogenic effects are available from long-term trials.

Experiences made from practice

Vapours may cause dizziness, headaches and tiredness
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.
Skin: causes strong corrosions.
Causes corrosions.
Risk of strong eye injuries.
Irritates respiratory tract.
Inhalation causes headache/nausea.

Additional information

The product is to be handled with the caution usual with chemicals.
Other hazardous properties may not be excluded.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 110 mg/l (96 h)	Fish	EU EC C. 1 Acute Toxicity for Fish	CAS: 2855-13-2
Daphnia	EC50 23 mg/l (48 h)	Daphnia sp.	OECD 202	CAS: 2855-13-2
Algae	EC50 37 mg/l (72 h)	Green algae	EU EC C.3 Alga Inhibition Test	CAS: 2855-13-2



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	Value	Species	Method	Validation
Bacteria	EC10 1120 mg/l (18 h)	activated sludge	Toxicology test with the product.	CAS: 2855-13-2

12.2. Persistence and degradability

	Elimination rate	Method of analysis	Method	Validation
Biological degradability	8 % (28 d) CAS: 2855-13-2	DOC decrease	EU Method C.4	not readily degradable
Degradability	95 - 97 % (21 d) CAS: 100-51-6	DOC decrease	OECD 301 A	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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste code No.

07 02 04*

Name of waste

other organic solvents, washing liquids and mother liquors

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	2289	2289	2289



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	ADR/RID	IMDG	IATA-DGR
14.2. UN proper shipping name	ISOPHORONEDIAMINE	ISOPHORONEDIAMINE	Isophoronediamine
14.3. Transport hazard class(es)	8	8	8
14.4. Packing group	III	III	III
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		

SECTION 15: Regulatory information

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

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.

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: 8.2

H302 Harmful if swallowed.

H302, -?-

H302; -?-

~~H332~~ Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H361f Suspected of damaging fertility or the unborn child (state specific effect if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

H411 Toxic to aquatic life with long lasting effects.



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WEICON WR Hardener

H412 Harmful to aquatic life with long lasting effects.