

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

WEICON BR Hardener

Code-Nr. 104202

**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 &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	
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Acute Tox. 4	H312	
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Skin Irrit. 2	H315	
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Eye Dam. 1	H318	
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Skin Sens. 1	H317	
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Aquatic Chronic 2	H411	
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**Hazard Statements**

H302 + H312	Harmful if swallowed or in contact with skin.
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H315	Causes skin irritation.
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H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.

## 2.2. Label elements

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



GHS05



GHS07



GHS09

### Signal word

Danger

### Hazard Statements

H302 + H312	Harmful if swallowed or in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.

### Precautionary Statements

P102	Keep out of reach of children.
P261	Avoid breathing vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/eye 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.
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.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362	Take off contaminated clothing.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
P501	Dispose of contents/container to hazardous or special waste collection point.

### Hazardous ingredients for labeling

3,6-diazaoctanethylenediamin, amines, polyethylenepoly-, pentactylenhexamine, tetraethylenepentamine

## 2.3. Other hazards

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

Harmful: danger of serious damage to health by prolonged exposure in contact with skin 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**

Preparation of different active substances

**Hazardous ingredients**

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
112-24-3	203-950-6	3,6-diazaoctanethylenediamin	<= 1,1	Acute Tox. 4, H312 / Skin Corr. 1B, H314 / Skin Sens. 1, H317 / Aquatic Chronic 3, H412
112-57-2	203-986-2	tetraethylenepentamine	< 1	Acute Tox. 4, H312 / Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Skin Sens. 1, H317 / Aquatic Chronic 2, H411
7727-43-7 68131-73-7	231-784-4 268-626-9	barium sulphate, natural amines, polyethylenepoly-	10 - 25 < 2,2	Acute Tox. 4, H302, H312 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / Skin Sens. 1, H317 / Aquatic Acute 1, H400 M=1 / Aquatic Chronic 1, H410 M=1
4067-16-7	223-775-9	pentacthylenhexamine	<= 1,6	Skin Corr. 1B, H314 / Skin Sens. 1, H317 / Aquatic Acute 1, H400 M=1 / Aquatic Chronic 1, H410 M=1 / Eye Dam. 1, H318 /

**REACH**

CAS No	Name	REACH registration number
112-24-3	3,6-diazaoctanethylenediamin	not subject to registration
112-57-2	tetraethylenepentamine	01-2119487290-37
7727-43-7	barium sulphate, natural	01-2119491274-35
68131-73-7	amines, polyethylenepoly-	01-2119485823-28
4067-16-7	pentacthylenhexamine	01-2119485826-22

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

Remove contaminated soaked clothing immediately.

**In case of inhalation**

Remove the casualty into fresh air and keep him immobile.

Refer for medical treatment.

**In case of skin contact**

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

Refer for medical treatment.

**In case of eye contact**

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

**In case of ingestion**

Do not induce vomiting.

Call for a doctor immediately.

Rinse out mouth thoroughly with water.

Give plenty of water to drink in small sips.



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

##### **Physician's information / possible symptoms**

vomiting  
Respiratory complaints  
Allergic symptoms  
Nausea  
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)**

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**

Fire-extinguishing activities according to surrounding.

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

Metal oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide (CO)  
Carbon dioxide (CO<sub>2</sub>)  
Sulfur oxide

#### **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.

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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**

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.

Avoid dust formation.

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

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 soiled or soaked clothing immediately.

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.

#### Advice on storage compatibility

Do not store together with animal feedstuffs.

Do not store together with food.

#### Further information on storage conditions

Store only in original container at temperature of 35°C maximum (=95°F).

Keep container tightly closed, store at cool and aired place, open and handle carefully.

Keep locked up.

Protect from heat and direct solar radiation.

Store in a dry place.

Prevent drying-out.

### 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

#### Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m <sup>3</sup> ]	[ppm]	Remark
7727-43-7	Barium sulphate: respirable dust	8 hours	4		EH40/2005



## Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

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**WEICON BR Hardener****Ingredients with occupational exposure limits to be monitored (continued)**

CAS No	Name	Code	[mg/m3]	[ppm]	Remark
7727-43-7	Barium sulphate: total inhalable dust	8 hours	10		EH40/2005
111-40-0	2,2' Iminodi (ethylamine)	8 hours	4.3	1	EH40/2005

**! Additional advice**

The statutory local and national regulations have to be observed.

**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 AX/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.

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.

**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**

pasty

**Colour**

brownish

**Odour**

similar to amine

**Odour threshold**

not determined

**Important health, safety and environmental information**

	Value	Temperature	at	Method	Remark
<b>pH value</b>	not applicable				
<b>boiling point</b>	not determined				
<b>melting point</b>	not determined				
<b>Flash point</b>	> 93,3 °C			closed cup	keine selbstunterhaltende Verbrennung
<b>Vapourisation rate</b>	not determined				
<b>Flammable (solid)</b>	not determined				



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No. 1907/2006 (REACH)

Printed 28.08.2019

revision 28.08.2019 (GB) Version 1.6

## WEICON BR Hardener

	Value	Temperature	at	Method	Remark
<b>Flammability (gas)</b>	not determined				
<b>Ignition temperature</b>	not determined				
<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	20 °C			
<b>Relative density</b>	1,9 g/cm <sup>3</sup>	20 °C			
<b>Vapour density</b>	not determined				
<b>Solubility in water</b>		20 °C			insoluble
<b>Solubility/other</b>	not determined				
<b>Partition coefficient n-octanol/water (log P O/W)</b>	not determined				
<b>Decomposition temperature</b>	> 200 °C				
<b>Viscosity dynamic</b>	not determined				
<b>Viscosity kinematic</b>	not determined				
<b>Oxidising properties</b>	No information available.				
<b>Explosive properties</b>	no				
<b>9.2. Other information</b>	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

No information available.

### 10.4. Conditions to avoid

Keep away from heat.

### 10.5. Incompatible materials

No information available.

**10.6. Hazardous decomposition products**

Carbon monoxide and carbon dioxide.

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

Metaloxides

Sulphurous oxides (SO<sub>x</sub>)**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>	1128,9 mg/kg			ATE
<b>LD50 acute dermal</b>	1485,9 mg/kg			ATE
<b>Skin irritation</b>	irritant	rabbit		
<b>Eye irritation</b>	corrosive	rabbit eye		
<b>Skin sensitization</b>	sensitizing	Guinea pig		

**Subacute Toxicity - Carcinogenicity**

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

**Experiences made from practice**

Harmful to health by prolonged exposure.

Sensitization through skin contact possible.

Allergic reactions possible ( analogy-reasons ).

Risk of strong eye injuries.

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 the properties of the individual components.





## ! SECTION 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicological effects

	Value	Species	Method	Validation
<b>Daphnia</b>	LC50 33900 Mikro-g/l (48)	Daphnia magna		CAS: 112-24-3
<b>Algae</b>	EC50 3700 Mikro-g/l (96 h)	Pseudokirchneriella subcapitata		CAS: 112-24-3

### 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

Toxic to aquatic life, fishes and plankton.

Toxic 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

#### Waste code No.

08 04 09\*

15 01 10\*

#### Name of waste

waste adhesives and sealants containing organic solvents or other hazardous substances

packaging containing residues of or contaminated by hazardous substances

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**

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA-DGR</b>
<b>14.1. UN number</b>	3077	3077	3077
<b>14.2. UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N. O.S. (3,6-diazaoctanethylenediamin)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (3,6-diazaoctanethylenediamin)	Environmentally hazardous substance, solid, n.o.s. (3,6-diazaoctanethylenediamin)
<b>14.3. Transport hazard class(es)</b>	9	9	9
<b>14.4. Packing group</b>	III	III	III
<b>14.5. Environmental hazards</b>	Yes	Yes	Yes
<b>14.6. Special precautions for user</b>	No information available.		
<b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	not applicable		
<b>Land and inland navigation transport ADR/RID</b>	Hazard label(s) 9 tunnel restriction code E Classification code M7		
<b>Marine transport IMDG</b>	MARINE POLLUTANT		

**! 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.



## Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

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revision 28.08.2019 (GB) Version 1.6

### **WEICON BR Hardener**

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: 1.5

H302	Harmful if swallowed.
H302,	-?-
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.