

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

Name of product WEICON TI Hardener
Code-Nr. 104302

**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
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		
Skin Corr. 1A	H314	
Skin Sens. 1A	H317	
STOT RE 2	H373	
Aquatic Chronic 2	H411	

Hazard Statements

H302 + H312	Harmful if swallowed or in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

H373 May cause damage to organs through prolonged or repeated exposure.

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



GHS08



GHS09

Signal word

Danger

Hazard Statements

H302 + H312 Harmful if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic 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.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection.
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.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/attention if you feel unwell.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents/container to hazardous or special waste collection point.

Hazardous ingredients for labeling

4,4'-methylenebis(cyclohexylamine), HEPA, pentachthylenhexamine

2.3. Other hazards

Information pertaining to special dangers for human and environment

Harmful in contact with skin 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**

Preparation of different active substances

Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
68131-73-7	268-626-9	HEPA	1 - 25	Acute Tox. 4, H312 / Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Skin Sens. 1, H317 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410
4067-16-7	223-775-9	pentacthylenehexamine	1 - 25	Skin Corr. 1B, H314 / Skin Sens. 1, H317 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410
1761-71-3	217-168-8	4,4'-methylenebis(cyclohexylamine)	25 - 50	Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Skin Sens. 1, H317 / STOT RE 2, H373 / Aquatic Chronic 2, H411

REACH

CAS No	Name	REACH registration number
68131-73-7	HEPA	01-2119485823-28
4067-16-7	pentacthylenehexamine	01-2119485826-22
1761-71-3	4,4'-methylenebis(cyclohexylamine)	01-2119541673-38

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.

In case of inhalation of fumes symptoms of poisoning may occur after hours, medical treatment is necessary.

Seek medical treatment immediately.

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

After eye contact, rinse opened eye for 15 minutes under running water. Transfer to hospital for specialist examination.

In case of ingestion

Do not induce vomiting.

Call for a doctor immediately.

Give water to drink in small sips.

Rinse out mouth thoroughly with water.

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

Allergic symptoms

Skin burns

Nausea

Gastrointestinal complaints



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.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Product does not burn, 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.
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

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!

Take the usual precautions when handling with chemicals.

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 soiled clothing immediately.

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 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.

Do not keep at temperatures above 30°C.

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
4067-16-7	pentachthylenhexamine	8550 mg/m ³	DNEL long-term inhalative (systemic)	
		0,044 mg/cm ²	DNEL acute dermal, short-term (local)	

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.

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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.

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

Face shield

Other protection measures

protective clothing

Appropriate engineering controls

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

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

pasty

Colour

white

Odour

unpleasant

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	not applicable				
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature	not applicable				
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				
Relative density	ca. 1,45 - 1,55 g/cm ³	20 °C			
Vapour density	not determined				

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	Value	Temperature	at	Method	Remark
Solubility in water					insoluble
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity					pasty
Oxidising properties	No information available.				
Explosive properties	not determined				
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)

Acid

Oxidising agent

10.6. Hazardous decomposition products

Gases/vapours, toxic

Carbon monoxide and carbon dioxide.

Nitrous oxides (NO_x)**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	300 - 2000 mg/kg			ATEmix
LD50 acute dermal	1000 - 2000 mg/kg			ATEmix
Skin irritation	corrosive			
Eye irritation	corrosive			
Skin sensitization	sensitizing			

Experiences made from practice

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

Corrosive effect on skin and mucous membrane.

Sensitization through skin contact possible.

Causes corrosions.

Product may cause irreversible eye injuries.

! 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 180 mg/l (96 h)	Fish		CAS: 4067-16-7
Daphnia	EC 50 6,84 mg/l (48 h)	Daphnia magna		CAS: 1761-71-3

12.2. Persistence and degradability

	Elimination rate	Method of analysis	Method	Validation
Biological degradability				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**

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.	Name of waste
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances
15 01 10*	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.

Recommendations for packaging

Dispose of according to the local waste regulations.

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. (4,4'-Methylenbis(cyclohexylamin) Mixture)	AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-Methylenbis(cyclohexylamin) Mixture)	Amines, liquid, corrosive, n.o.s. (4,4'-Methylenbis(cyclohexylamin) Mixture)
14.3. Transport hazard class(es)	8	8	8
14.4. Packing group	II	II	II
14.5. Environmental hazards	Yes	Yes	Yes

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: 8.4

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

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).

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.