



! SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Name of product WEICON F Hardener
Code-Nr. 101502

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

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

Hazard Statements

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

- 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.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
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.
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

TRIETHYLENETETRAMINE, PROPOXYLATED

2.3. Other hazards**! 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**Hazardous ingredients**

**Hazardous ingredients (continued)**

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
90-72-2	202-013-9	2,4,6-Tris (dimethylaminomethyl) phenol	1 - 3	Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / Skin Sens. 1B, H317 / Aquatic Chronic 3, H412
112-24-3	203-950-6	trientine	7 - 13	Acute Tox. 4, H302; H312 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / Skin Sens. 1, H317 / Aquatic Chronic 3, H412
26950-63-0	500-055-5	Triethylenetetramine, propoxylated	13 - 30	Acute Tox. 4, H312 / Skin Irrit. 2, H315 / Eye Irrit. 2, H319 / Skin Sens. 1, H317 / Aquatic Chronic 3, H412

REACH

CAS No	Name	REACH registration number
90-72-2	2,4,6-Tris (dimethylaminomethyl) phenol	01-2119560597-27
112-24-3	trientine	not subject to registration
26950-63-0	Triethylenetetramine, propoxylated	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 inhalation

Remove the casualty into fresh air and keep him immobile.

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 skin contact, rinse with water for at least 10 minutes.

! 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.

Rinse out mouth thoroughly with water.

Give plenty of water to drink in small sips.

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

vomiting

Skin burns

Nausea

! 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)**

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

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 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 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

Store closed container at cool and aired place.

Protect from frost.

Protect from heat and direct solar radiation.

Storage temperature between 2°C to 40°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
112-24-3	trientine	1 mg/kg	DNEL acute dermal, short-term (local)	
		8 mg/kg bw/day	DNEL acute dermal, short-term (systemic)	
		0,41 mg/kg bw/day	DNEL long-term oral (repeated)	
		0,028 mg/kg bw/day	DNEL long-term dermal (local)	
		20 mg/kg	DNEL short-term oral (acute)	
		5380 mg/m3	DNEL acute inhalative (systemic)	
		1 mg/m3	DNEL long-term inhalative (systemic)	
90-72-2	2,4,6-Tris (dimethylaminomethyl) phenol	0,57 mg/kg bw/day	DNEL long-term dermal (systemic)	
		0,31 mg/m3	DNEL long-term inhalative (systemic)	

PNEC

CAS No	Substance name	Value	Code	Remark
112-24-3	trientine	0,19 mg/l	PNEC aquatic, freshwater	
		19,2 mg/kg	PNEC sediment, marine water	
		95,9 mg/kg	PNEC sediment, freshwater	



Safety Data Sheet according to Regulation (EC)

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

CAS No	Substance name	Value	Code	Remark
		0,038 mg/l	PNEC aquatic, marine water	
		4,25 mg/l	PNEC sewage treatment plant (STP)	
90-72-2	2,4,6-Tris (dimethylaminomethyl) phenol	0,0084 mg/l	PNEC aquatic, marine water	
		0,2 mg/l	PNEC sewage treatment plant (STP)	
		0,084 mg/l	PNEC aquatic, 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.

Breathing apparatus in the event of aerosol or mist formation.

Short term: filter apparatus, filter AX

! 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

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

green

Odour

hardly noticeable

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	11-12	20 °C			1:1 in water
boiling point	> 200 °C				
melting point	not determined				



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revision 10.07.2018 (GB) Version 8.5

WEICON F Hardener

	Value	Temperature	at	Method	Remark
Flash point	> 100 °C			DIN 51758	Pensky-Martens Closed Cup
Vapourisation rate	not determined				
Flammable (solid)	not applicable				
Flammability (gas)	not applicable				
Ignition temperature	> 200 °C				
Self ignition temperature					The product is not self-igniting.
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				
Relative density	ca. 1,6 g/ml	23 °C			
Vapour density	not determined				
Solubility in water		20 °C			soluble
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	> 200 °C				
Viscosity kinematic	not determined	40 °C			
Viscosity dynamic	not determined				
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 acids, alkalies and 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

Metaloxides

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	> 5000 mg/kg			ATE
LD50 acute dermal	> 3000 mg/kg			ATE
LC50 acute inhalation	> 50 mg/l ()			ATE
Skin irritation	corrosive	rabbit	OECD 404 Acute Dermal Irritation / Corrosion	
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 50 mg/kg (90 d) Repeated Dose 90-Day Oral Toxicity Study in Rodents CAS: 112-24-3		OECD 408	-



Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

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revision 10.07.2018 (GB) Version 8.5

WEICON F Hardener

	Value	Species	Method	Validation
Mutagenicity			OECD 482 Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells in vitro	No experimental information on genotoxicity in vitro available.
	CAS: 112-24-3			
Reproduction- Toxicity	NOEL		OECD 422 Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test	No indications of toxic effects were observed in reproduction studies in animals.
	Experimental value CAS: 90-72-2			
Carcinogenicity			OECD 451 Carcinogenicity Studies	No indications of carcinogenic effects are available from long-term trials.
	Carcinogenicity Studies / 3d/week CAS: 90-72-2			

Experiences made from practice

Corrosive effect on skin and mucous membrane.

Sensitization through skin contact possible.

Causes corrosions.

Risk of strong 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 330 mg/l (96 h)	Fish	EPA OPPTS EPA OTS 797. 1400	CAS: 112-24-3
Daphnia	EC50 31,1 mg/l (48 h)	Daphnia magna	EU EC C.2 Acute Toxicity for Daphnia	CAS: 112-24-3
Algae	ErC50 20 mg/l (72 h)	Green algae	OECD 201	CAS: 112-24-3
Bacteria	EC50 800 mg/l (30 min)	Leuciscus idus		CAS: 112-24-3

**12.2. Persistence and degradability**

	Elimination rate	Method of analysis	Method	Validation
Biological degradability	0 % (162 d) CAS: 112-24-3		OECD 301 D	not degradable
Degradability	4 % (28 d) CAS: 90-72-2		OECD 301 D	not degradable

12.3. Bioaccumulative potential

Slight bioaccumulation potential.

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****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

Empty containers can be deposited after cleaning in accordance with the local waste regulations.

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. (TRIETHYLENETETRAMIN E, PROPOXYLATED)	AMINES, LIQUID, CORROSIVE, N.O.S. (TRIETHYLENETETRAMINE, PROPOXYLATED)	Amines, liquid, corrosive, n.o. s. (TRIETHYLENETETRAMINE, PROPOXYLATED)

**WEICON F Hardener**

	ADR/RID	IMDG	IATA-DGR
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		
Special provisions	274		
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.
H302;	-?-
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.



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revision 10.07.2018 (GB) Version 8.5

WEICON F Hardener

H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.