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

### 1.1. Product identifier

#### Name of product

WEICON F2 Hardener

Code-Nr. 102002

### 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

Postbox 48045, DE-8460 Münster

Phone ++49(0)251 / 9322 - 0, Fax ++49(0)251 / 9322 - 244

E-Mail : [msds@weicon.de](mailto:msds@weicon.de)

Internet : [www.weicon.de](http://www.weicon.de)

#### Advice

Produktsicherheit / Product-Safety-Department

Phone ++49(0)251 / 9322 - 0

E-mail (competent person):

[msds@weicon.de](mailto:msds@weicon.de)

### 1.4. Emergency telephone number

GIZ Bonn (German, English) Tel: ++49(0)228-19 240

TRANSPORT: Consultank Lutz Harder GmbH Tel: +49(0)178

433 7434 (24h Emergency Contact)

#### Manufacturer

WEICON GmbH & Co. KG

Königsberger Str. 255, DE-48157 Münster

### 1.4. Emergency telephone number

#### Emergency advice

-

Phone -

GIZ Bonn (Medizinische Auskunft in Deutsch und Englisch)

Tel: ++49(0)228-19 240

TRANSPORT: Consultank Lutz Harder GmbH Tel: +49(0)178

433 7434 (24h Emergency Contact)

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## 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

<b>Skin Corr. 1C</b>	<b>H314</b>
<b>Eye Dam. 1</b>	<b>H318</b>
<b>Skin Sens. 1</b>	<b>H317</b>
<b>Repr. 2</b>	<b>H361f</b>
<b>Aquatic Acute 1</b>	<b>H400</b>
<b>Aquatic Chronic 1</b>	<b>H410</b>

### Hazard Statements

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H361f	Suspected of damaging fertility.
H400	Very toxic to aquatic life.
H410	Very 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

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H361f	Suspected of damaging fertility.
H410	Very toxic to aquatic life with long lasting effects.

### Precautionary Statements

P102	Keep out of reach of children.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
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.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
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.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER or doctor/physician.



# Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

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## WEICON F2 Hardener

P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/container to hazardous or special waste collection point.

### Hazardous ingredients for labeling

2-piperazin-1-ylethylamine, 4,4'-isopropylidenediphenol, Fatty acids C18 unsat, reaction products with tetraethylenepentamine

### Additional information

#### ! Remark

For industrial use only.

#### 2.3. Other hazards

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

Causes severe burns.

Possible risk of impaired fertility.

#### 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

Polyamino amide.

#### Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
80-05-7	201-245-8	4,4'-isopropylidenediphenol	7 - 13	Eye Dam. 1, H318 / Skin Sens. 1, H317 / Repr. 2, H361f / STOT SE 3, H335 / Aquatic Chronic 2, H411
140-31-8	205-411-0	2-piperazin-1-ylethylamine	3 - 7	Acute Tox. 4, H302 / Acute Tox. 3, H311 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / Skin Sens. 1, H317 / Aquatic Chronic 3, H412
1226892-45-0	273-201-6	Fatty acids C18 unsat, reaction products with tetraethylenepentamine	60 - 99,9	Skin Corr. 1C, H314 / Eye Dam. 1, H318 / Skin Sens. 1A, H317 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

#### REACH

CAS No	Name	REACH registration number
80-05-7	4,4'-isopropylidenediphenol	01-2119457856-23
140-31-8	2-piperazin-1-ylethylamine	01-2119471486-30
1226892-45-0	Fatty acids C18 unsat, reaction products with tetraethylenepentamine	01-2119487006-38



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## ! 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.

No mouth-to-mouth resuscitation by first aid.

Seek medical advice immediately.

#### In case of skin contact

In case of contact with skin wash off immediately with plenty of water.

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

#### ! 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.

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

#### Physician's information / possible symptoms

vomiting

Respiratory complaints

Headache

Allergic symptoms

Skin burns

Nausea

Confusion

Gastrointestinal complaints

#### Physician's information / possible dangers

Risk of respiratory disorders

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

In case of fire formation of dangerous gases possible.

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

Carbon monoxide (CO)

Carbon dioxide (CO<sub>2</sub>)



### 5.3. Advice for firefighters

#### Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply.

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.

Remove persons to safety.

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 seep away runed out product into ground or body of water.

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

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.

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 soiled or soaked clothing immediately.

Work in rooms with good ventilation.

Wash hands before breaks and after work.



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**Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking

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 alkalies.

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.

Store at 5 to 40°C (=41 to 104°F).

Store in a dry place.

**7.3. Specific end use(s)**

**Recommendation(s) for intended use**

See section 1.2

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**! SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**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.

**! Hand protection**

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: Butyl rubber; 0,7 mm; 480min; 60min, "Butoject 898" from KCL; Email: Vertrieb@kcl.de

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.

**Eye protection**

tightly fitting goggles

protective 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**  
liquid

**Colour**  
blue

**Odour**  
hardly noticeable

**Odour threshold**  
not determined

### Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
<b>pH value</b>	11	20 °C			1:1 in water
<b>boiling point</b>	> 200 °C				
<b>melting point</b>	not determined				
<b>Flash point</b>	147 °C			DIN 51758	Pensky-Martens Closed Cup
<b>Vapourisation rate</b>	not determined				
<b>Flammable (solid)</b>	not applicable				
<b>Flammability (gas)</b>	not applicable				
<b>Ignition temperature</b>	not determined				
<b>Self ignition temperature</b>	not applicable				
<b>Lower explosion limit</b>	not determined				
<b>Upper explosion limit</b>	not determined				
<b>Vapour pressure</b>	10 Pa	20 °C			
<b>Relative density</b>	0,98 g/cm <sup>3</sup>	25 °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>	450-900 mPa*s	25 °C			
<b>Viscosity kinematic</b>	not determined	40 °C			

**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 strong 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**

Gases/vapours, toxic

Carbon monoxide and carbon dioxide.

Nitrous oxides (NOx)

**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>	4100 mg/kg	rat		Calculated out of the components.
<b>LD50 acute dermal</b>	866 mg/kg	rabbit		CAS: 140-31-8
<b>LC50 acute inhalation</b>	> 170 mg/m <sup>3</sup> (6 h)	rat		CAS: 80-05-7
<b>Skin irritation</b>	corrosive	rabbit	OECD 404	
<b>Eye irritation</b>	corrosive	rabbit eye	OECD 405	
<b>Skin sensitization</b>	sensitizing	Guinea pig	OECD 406	





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### WEICON F2 Hardener

#### Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
<b>Chronic Toxicity</b>	NOAEL > 300 mg/kg OECD 422			-
<b>Mutagenicity</b>				No mutagenity, after different in-vitro studies.
<b>Reproduction-Toxicity</b>	NOEL 5 mg/kg  Experimental value CAS: 140-31-8	Rat	OECD 416	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.

#### Specific target organ toxicity (single exposure)

not applicable

#### Toxicity test (Additional information)

Indications of genotoxic effects at humans are available from reproduction studies in animals.

#### 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.

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.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicological effects

	Value	Species	Method	Validation
<b>Fish</b>	LC50 0,19 mg/l (96 h)	Fish	OECD 203	CAS: 1226892-45-0
<b>Daphnia</b>	EC 50 0,18 mg/l (48 h)	Daphnia sp.	OECD 202	CAS: 1226892-45-0
<b>Algae</b>	EC50 > 1000 mg/l (72 h)	Green algae	OECD 201	CAS: 140-31-8
<b>Bacteria</b>	EC0 109,4 mg/l (3 h)	activated sludge	OECD 209	CAS: 1226892-45-0

### 12.2. Persistence and degradability

	Elimination rate	Method of analysis	Method	Validation
<b>Biological degradability</b>	89 % (48 d) CAS: 1226892-45-0		OECD 303A	Biodegradable
<b>Degradability</b>	0 % (28 d) CAS: 140-31-8		OECD 301 F	not readily 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**

Very 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.

**! 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.

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
<b>14.1. UN number</b>	2735	2735	2735
<b>14.2. UN proper shipping name</b>	AMINES, LIQUID, CORROSIVE, N.O.S. (Polyamidoimidazoline, Tetraethylenpentamin)	AMINES, LIQUID, CORROSIVE, N.O.S. ((TETRAETHYLENE PENTAMINE) (AMINOETHYLPIPERAZINE))	Amines, liquid, corrosive, n.o. s. ((TETRAETHYLENE PENTAMINE) (AMINOETHYLPIPERAZINE))
<b>14.3. Transport hazard class(es)</b>	8	8	8
<b>14.4. Packing group</b>	III	III	III
<b>14.5. Environmental hazards</b>	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

**Marine transport IMDG**

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.

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: 8.1

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
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).
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.