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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

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

Fax +49(0)251 / 9322 - 244

E-mail (competent person):

[msds@weicon.de](mailto: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)

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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

Skin Corr. 1B

H314

Eye Dam. 1

**Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]**

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Skin Sens. 1	H317	
Repr. 1B	H360F	
Aquatic Acute 1	H400	
Aquatic Chronic 1	H410	

**Hazard Statements**

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H360F	May damage 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.
H360F	May damage 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.
P260	Do not breathe 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/eye protection.
P281	Use personal protective equipment as required.
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.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
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**

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.

May impair 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]
140-31-8	205-411-0	2-piperazin-1-ylethylamine	3 - 7	Acute Tox. 4, H312 / Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Skin Sens. 1, H317 / Aquatic Chronic 3, H412
80-05-7	201-245-8	4,4'-isopropylidenediphenol	7 - 13	Eye Dam. 1, H318 / Skin Sens. 1, H317 / Repr. 1B, H360F / STOT SE 3, H335 / Aquatic Chronic 2, H411
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 M=10 / Aquatic Chronic 1, H410 M=1

**REACH**

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

**! Additional advice**

SVHC Candidate: CAS 80-05-7

**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.



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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.

Remove persons to safety.

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 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

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## 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.

#### 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 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.

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

**! SECTION 8: Exposure controls/personal protection****8.1. Control parameters****DNEL-/PNEC-values****DNEL worker**

CAS No	Substance name	Value	Code	Remark
140-31-8	2-piperazin-1-ylethylamine	20 mg/kg bw/day	DNEL acute dermal, short-term (systemic)	
		21,4 mg/m <sup>3</sup>	DNEL acute inhalative (systemic)	
		0,04 mg/cm <sup>2</sup>	DNEL acute dermal, short-term (local)	

**PNEC**

CAS No	Substance name	Value	Code	Remark
140-31-8	2-piperazin-1-ylethylamine	0,058 mg/l	PNEC aquatic, freshwater	
		0,0058 mg/l	PNEC aquatic, marine water	
		215 mg/kg	PNEC sediment, freshwater	
		21,5 mg/kg	PNEC sediment, marine water	
		250 mg/l	PNEC sewage treatment plant (STP)	

**! Additional advice**

The statutory local and national regulations have to be observed.

**8.2. Exposure controls****Respiratory protection**

If ventilation insufficient, wear respiratory protection.

Short term: filter apparatus, combination filter A-P1

**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.

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

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>	> 200 °C				estimate
<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>	0,1 hPa	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			

**WEICON F2 Hardener**

	Value	Temperature	at	Method	Remark
<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>	> 5000 mg/kg			ATE
<b>LD50 acute dermal</b>	> 5000 mg/kg			ATE
<b>LC50 acute inhalation</b>	> 170 mg/m <sup>3</sup> (6 h)	rat	dust/mist	CAS: 80-05-7





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**WEICON F2 Hardener**

	Value/Validation	Species	Method	Remark
<b>Skin irritation</b>	corrosive	rabbit	OECD 404 Acute Dermal Irritation / Corrosion	
<b>Eye irritation</b>	corrosive	rabbit eye	OECD 405 Acute Eye Irritation/ Corrosion	
<b>Skin sensitization</b>	sensitizing	Guinea pig	OECD 406 Skin Sensitization	

**Subacute Toxicity - Carcinogenicity**

	Value	Species	Method	Validation
<b>Chronic Toxicity</b>	NOAEL > 300 mg/kg OECD 422			-
<b>Mutagenicity</b>	OECD 482 Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells in vitro		CAS: 140-31-8	No mutagenity, after different in-vitro studies.
<b>Reproduction- Toxicity</b>	Experimental value CAS: 80-05-7	Rat	OECD 416	Indications of toxic effects are available from reproduction studies in animals.
<b>Carcinogenicity</b>	Carcinogenicity Studies / 7d/week / 2 years CAS: 80-05-7			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.

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>Fish</b>	LC50 0,19 mg/l (96 h)	Brachidanio rerio	OECD 203	CAS: 1226892-45-0
<b>Daphnia</b>	EC 50 0,18 mg/l (48 h)	Daphnia magna	OECD 202	CAS: 1226892-45-0
<b>Algae</b>	EC50 61,2 Mikro-g/l (72 h)	Green algae	OECD 201	CAS: 1226892-45-0
<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>	1 - 2 % (48 d) CAS: 80-05-7			not degradable
<b>Degradability</b>	0 % (28 d) CAS: 140-31-8		OECD 301 F	not 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

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.

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

#### 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**

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA-DGR</b>
<b>14.1. UN number</b>	2735	2735	2735
<b>14.2. UN proper shipping name</b>	AMINES, LIQUID, CORROSIVE, N.O.S. (Polyamidoimidazoline)	AMINES, LIQUID, CORROSIVE, N.O.S. (Polyamidoimidazoline)	Amines, liquid, corrosive, n.o. s. (Polyamidoimidazoline)
<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****Training advice**

When grinding/processing the cured material, a dust containing quartz can be produced.

**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)

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### WEICON F2 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.

Listed in: EINECS; TSCA; DSL; AICS; KECI (KR); INV (CN).

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 8.6

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.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H360F	May damage 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.