

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

Name of product WEICON ST Hardener
Code-Nr. 104102

**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. 1B | H314 | |
| Skin Sens. 1 | H317 | |
| Aquatic Chronic 2 | H411 | |

Hazard Statements

| | |
|------|--|
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| 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

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

P102 Keep out of reach of children.

P260 Do not breathe vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

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.

P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position 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.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P391 Collect spillage.

P405 Store locked up.

P501 Dispose of contents/container to hazardous or special waste collection point.

! Hazardous ingredients for labeling

2,4,6-tris(dimethylaminomethyl)phenol, Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine, HEPA, pentachylenhexamine, tetraethylenepentamine

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
Description

Hardener for a 2-component epoxy adhesive (formulated polyaminoamide containing 3-aminopropyl dimethylamine).



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No. 1907/2006 (REACH)

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WEICON ST Hardener

Hazardous ingredients

| 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 - 25 | Acute Tox. 4, H302 / Eye Irrit. 2, H319 / Skin Irrit. 2, H315 |
| 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 |
| 112-57-2 | 203-986-2 | tetraethylenepentamine | 1 - 25 | Acute Tox. 4, H312 / Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Skin Sens. 1, H317 / Aquatic Chronic 2, H411 |
| 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 |
| 157707-73-8 | 500-382-3 | Fatty acids, C18-unsatd., dimers, oligomeric reaction products with fatty acids, C16-18 and C18-unsatd., branched and linear, tetraethylenepentamine and triethylenetetramine | 1 - 25 | Eye Dam. 1, H318 |
| 68082-29-1 | 500-191-5 | Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | 1 - 25 | Eye Dam. 1, H318 / Aquatic Chronic 2, H411 / Skin Irrit. 2, H315 / Skin Sens. 1, H317 |

REACH

| CAS No | Name | REACH registration number |
|-------------|---|---------------------------|
| 90-72-2 | 2,4,6-tris(dimethylaminomethyl)phenol | 01-2119560597-27 |
| 68131-73-7 | HEPA | 01-2119485823-28 |
| 112-57-2 | tetraethylenepentamine | 01-2119487290-37 |
| 4067-16-7 | pentacthylenehexamine | 01-2119485826-22 |
| 157707-73-8 | Fatty acids, C18-unsatd., dimers, oligomeric reaction products with fatty acids, C16-18 and C18-unsatd., branched and linear, tetraethylenepentamine and triethylenetetramine | 01-2119972324-36 |
| 68082-29-1 | Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | 01-2119972320-44 |

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately and dispose it safely.

In case of inhalation

Remove the casualty into fresh air and keep him immobile.

In the event of symptoms refer for medical treatment.

In case of skin contact

In case of contact with skin wash off 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.



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

Physician's information / possible symptoms

vomiting
Respiratory complaints
Allergic symptoms
Skin burns

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

Foam
Dry fire-extinguishing substance
Carbon dioxide
Water spray jet

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of fire formation of dangerous gases possible.

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.
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**

Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).

Ventilate area concerned

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 with acids or alkalies.

Do not store together with animal feedstuffs.

Do not store together with food.

Do not store together with oxidizing agents.

Do not store together with metals.

Further information on storage conditions

Keep container tightly closed and store at cool and aired place.

Protect from heat and direct solar radiation.

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 | pentachylenhexamine | 8550 mg/m ³ | DNEL long-term inhalative (systemic) | |



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DNEL-/PNEC-values (continued)

| CAS No | Substance name | Value | Code | Remark |
|------------|---|--------------------------|---------------------------------------|--------|
| | | 0,044 mg/cm ² | DNEL acute dermal, short-term (local) | |
| 68082-29-1 | Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | 1,1 mg/kg bw/day | DNEL acute dermal, short-term (local) | |
| | | 3,9 mg/m ³ | DNEL acute inhalative (local) | |
| 90-72-2 | 2,4,6-tris(dimethylaminomethyl)phenol | 0,31 mg/m ³ | DNEL long-term inhalative (systemic) | |

PNEC

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

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.

Short term: filter apparatus, combination filter K-P2

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

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

light grey

Odour

unpleasant

Odour threshold



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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 | > 100 °C | | | | |
| Vapourisation rate | not determined | | | | |
| Flammable (solid) | not determined | | | | |
| Flammability (gas) | not determined | | | | |
| Ignition temperature | not determined | | | | |
| 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. 1,55 - 1,65 g/cm ³ | 20 °C | | | |
| Vapour density | not determined | | | | |
| Solubility in water | | | | | No or low immiscibility |
| Solubility/other | not determined | | | | |
| Partition coefficient n-octanol/water (log P O/W) | not determined | | | | |
| Decomposition temperature | not determined | | | | |
| Viscosity | 200000 mPa*s | 25 °C | | | |

Oxidising properties

No information available.

Explosive properties

no

9.2. Other information

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

Reactions with acids, alkalies and oxidising agents.

Reactions with Metals.

10.4. Conditions to avoid

Keep away from heat.

10.5. Incompatible materials**Substances to avoid**

Alkali (lye)

Acid

Oxidising agent

Metal, Metal-Salts

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

Nitrous oxides (NO_x)

Toxic gases/vapours

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 | 1200 mg/kg | rat | | CAS: 90-72-2 |
| LD50 acute dermal | 1280 mg/kg | rat | | CAS: 90-72-2 |
| LC50 acute inhalation | 320 mg/kg () | mouse | | CAS: 112-57-2 |
| Skin irritation | corrosive | | | |
| Eye irritation | corrosive | | | |
| Skin sensitization | sensitizing | Guinea pig | | |

Subacute Toxicity - Carcinogenicity

| | Value | Species | Method | Validation |
|---------------------|-------|---------|--------|---|
| Mutagenicity | | | | No experimental information on genotoxicity in vitro available. |



| Value | Species | Method | Validation |
|------------------------------|---------|--------|---|
| Reproduction-Toxicity | | | No indications of toxic effects were observed in reproduction studies in animals. |
| Carcinogenicity | | | No indications of carcinogenic effects are available from long-term trials. |

! Experiences made from practice

Corrosive effect on skin and mucous membrane.

Sensitization through skin contact possible.

Causes corrosions.

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 7,07 mg/l (96 h) | Fish | | CAS: 68082-29-1 |
| Daphnia | EC50 17,5 mg/l (48 h) | Daphnia magna | | CAS: 4067-16-7 |
| Algae | EC50 0,7 mg/l (72 h) | Green algae | | CAS: 4067-16-7 |

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 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

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 |
|---|--|--|---|
| 14.1. UN number | 2735 | 2735 | 2735 |
| 14.2. UN proper shipping name | POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Aliphatic amines, Dimer fatty acid, Polyamidoamine resins) | POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Aliphatic amines, Dimer fatty acid, Polyamidoamine resins) | Polyamines, liquid, corrosive, n.o.s. (Aliphatic amines, Dimer fatty acid, Polyamidoamine resins) |
| 14.3. Transport hazard class(es) | 8 | 8 | 8 |
| 14.4. Packing group | III | III | III |
| 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: 8.6

| | |
|------|---|
| H302 | Harmful if swallowed. |
| 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. |
| H319 | Causes serious eye irritation. |
| 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. |