

Trade name: Hardener FH for cds-Pouring Concrete UW

Version: 1.0 / DE

Date revised 10.12.2021

Substance number: 10288

Replaces Version: - / DE

Print date: 05.05.2022

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

1.1. Product identifier

Hardener FH for cds-Pouring Concrete UW

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/preparation

coating material

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

cds Polymere GmbH & Co. KG

Gau-Bickelheimer Str. 72

55576 Sprendlingen/Rhh.

Telephone no. +49(6701) 9350-0

Fax no. +49(6701) 9350-50

1.4. Emergency telephone number

cds-Labor / Tel. +49 (67 01) 93 50-28 (This number is reachable monday to friday from 8 am to 5 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4	H312
Skin Corr. 1	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
Repr. 2	H361fd
STOT RE 1	H372
Aquatic Chronic 2	H411

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008
For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Danger

Hazard statements

H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.

Trade name: Hardener FH for cds-Pouring Concrete UW

Version: 1.0 / DE

Date revised 10.12.2021

Substance number: 10288

Replaces Version: - / DE

Print date: 05.05.2022

H372 Causes damage to organs through prolonged or repeated exposure.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 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.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains 3,6,9-Triazaundecan-1,11-diamin; 2-Piperazin-1-ylethylamin; Phenol, styrolisiert

2.3. Other hazards

No special hazards have to be mentioned.

SECTION 3: Composition/information on ingredients**Hazardous ingredients****Phenol, styrolisiert**

CAS No. 61788-44-1
 EINECS no. 262-975-0
 Registration no. 01-2119980970-27-XXXX
 Concentration >= 25 < 50 %
 Classification (Regulation (EC) No. 1272/2008)
 Skin Irrit. 2 H315
 Skin Sens. 1 H317
 Aquatic Chronic 2 H411

2-Piperazin-1-ylethylamin

CAS No. 140-31-8
 EINECS no. 205-411-0
 Registration no. 01-2119471486-30-XXXX
 Concentration >= 25 < 50 %
 Classification (Regulation (EC) No. 1272/2008)
 Acute Tox. 3 H311
 Repr. 2 H361
 STOT RE 1 H372
 Skin Corr. 1B H314
 Eye Dam. 1 H318
 Acute Tox. 4 H302
 Skin Sens. 1 H317
 Aquatic Chronic 3 H412

3,6,9-Triazaundecan-1,11-diamin

CAS No. 112-57-2
 EINECS no. 203-986-2
 Concentration >= 3 < 10 %
 Classification (Regulation (EC) No. 1272/2008)
 Acute Tox. 4 H302
 Acute Tox. 4 H312
 Skin Corr. 1B H314
 Skin Sens. 1 H317
 Aquatic Chronic 2 H411

Trade name: Hardener FH for cds-Pouring Concrete UW

Version: 1.0 / DE

Date revised 10.12.2021

Substance number: 10288

Replaces Version: - / DE

Print date: 05.05.2022

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated, soaked clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid. Clean body thoroughly (bath, shower). In any case show the physician the Safety Data Sheet.

After inhalation

Ensure supply of fresh air. Remove affected person from danger area. Seek medical advice immediately.

After skin contact

Wash off immediately with soap and water. Seek medical advice immediately.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Take medical treatment.

After ingestion

Call in a physician immediately and show him the Safety Data Sheet. Rinse mouth thoroughly with water. Let plenty of water be drunk in small gulps. Do not induce vomiting.

Adhere to personal protective measures when giving first aid

First aider: Pay attention to self-protection!

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

Until now no symptoms known so far.

4.3. Indication of any immediate medical attention and special treatment needed

Hints for the physician / hazards

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Dry powder

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Do not inhale explosion and/or combustion gases. In case of combustion use a suitable breathing apparatus. Wear full protective suit.

Other information

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations. Observe manufacturer's / distributor's instructions.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use breathing apparatus if exposed to vapours/dust/aerosol. Avoid contact with skin, eyes and clothing.

Trade name: Hardener FH for cds-Pouring Concrete UW

Version: 1.0 / DE

Date revised 10.12.2021

Substance number: 10288

Replaces Version: - / DE

Print date: 05.05.2022

Refer to protective measures listed in Sections 7 and 8.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Containers in which spilt substance has been collected must be adequately labelled. Dispose of absorbed material in accordance with the regulations.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid formation of aerosols. Perform filling operations only at stations with exhaust ventilation facilities. Provide suitable exhaust ventilation at the processing machines. If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Keep container tightly closed.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Provide solvent-resistant and impermeable floor.

Hints on storage assembly

Do not store together with foodstuffs.

Storage classes

Storage class according to TRGS 510 8 Corrosive hazardous substances

Further information on storage conditions

Do not keep at temperatures above 20 °C.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Other information

Contains no substances with occupational exposure limit values.

Derived No/Minimal Effect Levels (DNEL/DMEL)

2-Piperazin-1-ylethylamin

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	10,6	mg/m ³

Phenol, styrolisiert

Type of value	Derived No Effect Level (DNEL)
Reference group	Worker
Route of exposure	dermal

Trade name: Hardener FH for cds-Pouring Concrete UW

Version: 1.0 / DE

Date revised 10.12.2021

Substance number: 10288

Replaces Version: - / DE

Print date: 05.05.2022

Concentration	2,1	mg/kg
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Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Route of exposure	inhalative	
Concentration	7,4	mg/m ³

Predicted No Effect Concentration (PNEC)**2-Piperazin-1-ylethylamin**

Type of value	PNEC	
Type	Freshwater	
Concentration	0,058	mg/l

Type of value	PNEC	
Type	Marine	
Concentration	0,0058	mg/l

Phenol, styrolisiert

Type of value	PNEC	
Type	Freshwater	
Concentration	0,03	mg/l

Type of value	PNEC	
Type	Marine	
Concentration	0,003	mg/l

8.2. Exposure controls**General protective and hygiene measures**

Hold emergency shower available. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Do not eat, drink or smoke during work time. Storage of foodstuffs in work rooms is forbidden. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

Respiratory protection

If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn.

Hand protection

Chemical resistant gloves
Appropriate Material neoprene

Eye protection

Safety glasses with side protection shield; Face shield

Body protection

Clothing as usual in the chemical industry. Protective shoes

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

Form	liquid
Colour	slightly yellowish
Odour	amine-like
Odour threshold	
Remarks	not determined
pH value	

Trade name: Hardener FH for cds-Pouring Concrete UW

Version: 1.0 / DE

Date revised 10.12.2021

Substance number: 10288

Replaces Version: - / DE

Print date: 05.05.2022

Remarks not determined

Melting point

Remarks not determined

Freezing point

Remarks not determined

Initial boiling point and boiling range

Value > 200 °C

Flash point

Value > 93 °C

Evaporation rate (ether = 1) :

Remarks not determined

Flammability (solid, gas)

not determined

Upper/lower flammability or explosive limits

Remarks not determined

Vapour pressureValue < 1 hPa
Temperature 50 °C**Vapour density**

Remarks not determined

DensityValue 0,97 g/cm³
Temperature 23 °C**Solubility in water**

Remarks not determined

Solubility(ies)

Remarks not determined

Partition coefficient: n-octanol/water

Remarks not determined

Ignition temperature

Remarks not determined

Decomposition temperature

Remarks not determined

Viscosity

Remarks not determined

Explosive properties

evaluation not determined

Oxidising properties

Remarks not determined

9.2. Other information**Other information**

None known

SECTION 10: Stability and reactivity**10.1. Reactivity**

Trade name: Hardener FH for cds-Pouring Concrete UW

Version: 1.0 / DE

Date revised 10.12.2021

Substance number: 10288

Replaces Version: - / DE

Print date: 05.05.2022

No hazardous reactions when stored and handled according to prescribed instructions.

10.2. Chemical stability

No hazardous reactions known.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

No hazardous reactions known.

10.5. Incompatible materials

None known

10.6. Hazardous decomposition products

Toxic gases/vapours, Irritant gases/vapours

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute oral toxicity**

Remarks Based on available data, the classification criteria are not met.

Acute oral toxicity (Components)**3,6,9-Triazaundecan-1,11-diamin**

Species	rat			
LD50		3990		mg/kg

2-Piperazin-1-ylethylamin

Species	rat			
LD50	>	2000	to	5000 mg/kg

Phenol, styrolisiert

Species	rat			
LD50	>	2000		mg/kg

Acute dermal toxicity

ATE		1.734,52		mg/kg
		14		

Method calculated value (Regulation (EC) No. 1272/2008)

Remarks The classification criteria are met.

Acute dermal toxicity (Components)**3,6,9-Triazaundecan-1,11-diamin**

Species	rabbit			
LD50		1260		mg/kg

2-Piperazin-1-ylethylamin

Species	rabbit			
LD50		866		mg/kg

Phenol, styrolisiert

Species	rat			
LD50	>	2000		mg/kg

Acute inhalational toxicity

Remarks Based on available data, the classification criteria are not met.

Acute inhalative toxicity (Components)**Phenol, styrolisiert**

Species	mouse			
LC50		158,3		mg/l

Trade name: Hardener FH for cds-Pouring Concrete UW

Version: 1.0 / DE

Date revised 10.12.2021

Substance number: 10288

Replaces Version: - / DE

Print date: 05.05.2022

Duration of exposure 4 h

Skin corrosion/irritation

evaluation corrosive
Remarks The classification criteria are met.

Serious eye damage/irritation

evaluation corrosive
Remarks The classification criteria are met.

Sensitization

evaluation May cause sensitization by skin contact.
Remarks The classification criteria are met.

Subacute, subchronic, chronic toxicity

Remarks not determined

Mutagenicity

Remarks Based on available data, the classification criteria are not met.

Reproductive toxicity

evaluation Suspected of damaging fertility. Suspected of damaging the unborn child.
Remarks The classification criteria are met.

Carcinogenicity

Remarks Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (STOT)**Single exposure**

Remarks Based on available data, the classification criteria are not met.

Repeated exposure

Remarks The classification criteria are met.
evaluation Causes damage to organs through prolonged or repeated exposure

Aspiration hazard

Based on available data, the classification criteria are not met.

Experience in practice

Inhalation may lead to irritation of the respiratory tract.

Other information

No toxicological data are available.

SECTION 12: Ecological information**12.1. Toxicity****General information**

not determined

Fish toxicity (Components)**3,6,9-Triazaundecan-1,11-diamin**

Species guppy (*Poecilia reticulata*)
LC50 420 mg/l
Duration of exposure 96 h

2-Piperazin-1-ylethylamin

Species Fathead minnow (*Pimephales promelas*)
LC50 2190 mg/l
Duration of exposure 96 h

Phenol, styrolisiert

Species zebra fish (*Brachydanio rerio*)
LC50 5,6 mg/l

Trade name: Hardener FH for cds-Pouring Concrete UW

Version: 1.0 / DE

Date revised 10.12.2021

Substance number: 10288

Replaces Version: - / DE

Print date: 05.05.2022

Duration of exposure 96 h

Daphnia toxicity (Components)**3,6,9-Triazaundecan-1,11-diamin**

Species	Daphnia magna	
EC50	24	mg/l
Duration of exposure	48	h

2-Piperazin-1-ylethylamin

Species	Daphnia magna	
EC50	58	mg/l
Duration of exposure	48	h

Phenol, styrolisiert

Species	Daphnia magna	
EC50	4,6	mg/l
Duration of exposure	48	h

Algae toxicity (Components)**3,6,9-Triazaundecan-1,11-diamin**

Species	Pseudokirchneriella subcapitata	
IC50	2	mg/l
Duration of exposure	72	h

2-Piperazin-1-ylethylamin

Species	Pseudokirchneriella subcapitata	
EC50	> 1000	mg/l
Duration of exposure	72	h

Phenol, styrolisiert

Species	Scenedesmus subspicatus	
EL50	3,14	mg/l
Duration of exposure	72	h

12.2. Persistence and degradability**General information**

not determined

12.3. Bioaccumulative potential**General information**

not determined

Partition coefficient: n-octanol/water

Remarks not determined

12.4. Mobility in soil**General information**

not determined

12.5. Results of PBT and vPvB assessment**General information**

not determined

12.6. Other adverse effects**General information**

not determined

General information / ecology

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

Trade name: Hardener FH for cds-Pouring Concrete UW

Version: 1.0 / DE

Date revised 10.12.2021

Substance number: 10288

Replaces Version: - / DE

Print date: 05.05.2022

SECTION 13: Disposal considerations

13.1. Waste treatment methods







Disposal recommendations for the product

Allocation of a waste code number, according to the European Waste Catalogue (EWC), should be carried out in agreement with the regional waste disposal company.

Disposal recommendations for packaging

Packaging that cannot be cleaned should be disposed off in agreement with the regional waste disposal company.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	E		
14.1. UN number	2735	2735	2735
14.2. UN proper shipping name	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (2-Piperazin-1-ylethylamin, 3,6,9-Triazaundecan-1,11-diamin)	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (2-Piperazin-1-ylethylamin, 3,6,9-Triazaundecan-1,11-diamin)	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (2-Piperazin-1-ylethylamin, 3,6,9-Triazaundecan-1,11-diamin)
14.3. Transport hazard class(es)	8	8	8
Label			
14.4. Packing group	III	III	III
Limited Quantity	5 l		
Transport category	3		
14.5. Environmental hazards	 ENVIRONMENTALLY HAZARDOUS	Marine Pollutant 	 ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Water Hazard Class (Germany)

Water Hazard Class (Germany) WGK 2

Trade name: Hardener FH for cds-Pouring Concrete UW

Version: 1.0 / DE

Date revised 10.12.2021

Substance number: 10288

Replaces Version: - / DE

Print date: 05.05.2022

VOC

VOC (EU) 0 % 0 g/l

15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

SECTION 16: Other information**Hazard statements listed in Chapter 3**

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
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.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

CLP categories listed in Chapter 3

Acute Tox. 3	Acute toxicity, Category 3
Acute Tox. 4	Acute toxicity, Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Eye Dam. 1	Serious eye damage, Category 1
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1B	Skin corrosion, Category 1B
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
STOT RE 1	Specific target organ toxicity - repeated exposure, Category 1

Information about Safety Data Sheets Preparers

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Supplemental information

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.