

Substance number: 11465

Version: 2.0 / EN Replaces Version: 1.0 / EN Date revised 12.12.2022 Print date: 12.12.2022

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

1.1. Product identifier

Hardener FH for cds-Adhesive

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)

Skin Corr. 1A	H314
Eye Dam. 1	H318
Skin Sens. 1A	H317
Repr. 2	H361fd
STOT RE 1	H372
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

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

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.
H372	Causes damage to organs through prolonged or repeated exposure.

Safety data sheet in accord	ance with regulation (EC)	No 190	7/2006		çds
rade name: Hardener FH for	cds-Adhesive				
	Version:	2.0/E	N		Date revised 12.12.20
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H410	Very toxic to aquatic life	with long	g lasting	effects.	
Precautionary stater	nents				
P260	Do not breathe dust/fum			urs/spray.	
P273	Avoid release to the env			alou o proto ot	ion /food protoction
P280 P304+P340	Wear protective gloves/p IF INHALED: Remove p				
P305+P351+P338	IF IN EYES: Rinse caution				
	lenses, if present and ea				
P310	Immediately call a POIS				
Hazardous compone	ent(s) to be indicated or	n label	(Regula	ation (EC) N	lo. 1272/2008)
contains	3,6,9-Triazaundecan-1,1	1-diami	n; <mark>3-</mark> Ami	nopropyltrieth	noxysilan; 2-Piperazin-1-
	ylethylamin; Phenol, styr	olisiert;	Fettsäur	en,Tallöl-,Re	aktionsprodukte m.
	Tetraethylenpentamin				
2.3. Other hazards					
No special hazards h	have to be mentioned.				
SECTION 3: Compos	sition/information	<u>on ing</u>	gredie	<u>ents</u>	
Hazardous ingredier	nts				
•	aktionsprodukte m. Tetra	ethyleni	entami	n	
CAS No.	68953-36-6	ouryrong	Jondann	••	
EINECS no.	273-201-6				
Registration no.	01-2119487006-38				
Concentration	>= 25	<	50	%	
Classification (Regul	ation (EC) No. 1272/2008)				
	Skin Corr. 1A	H314			
	Skin Sens. 1	H317			
	Aquatic Acute 1 Aquatic Chronic 1	H400 H410			
		T410			
	Aqualle Onronie 1	Π410			
Phenol, styrolisiert		H410			
CAS No.	61788-44-1	П410			
CAS No. EINECS no.	61788-44-1 262-975-0				
CAS No. EINECS no. Registration no.	61788-44-1 262-975-0 01-2119980970-27-XXX	X	25	%	
CAS No. EINECS no. Registration no. Concentration	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10		25	%	
CAS No. EINECS no. Registration no. Concentration	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008)	X <	25	%	
CAS No. EINECS no. Registration no. Concentration	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10	X	25	%	
CAS No. EINECS no. Registration no. Concentration	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008) Skin Irrit. 2	X < H315	25	%	
CAS No. EINECS no. Registration no. Concentration Classification (Regul	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008) Skin Irrit. 2 Skin Sens. 1A Aquatic Chronic 2	X < H315 H317	25	%	
CAS No. EINECS no. Registration no. Concentration Classification (Regul 2-Piperazin-1-ylethyla	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008) Skin Irrit. 2 Skin Sens. 1A Aquatic Chronic 2	X < H315 H317	25	%	
CAS No. EINECS no. Registration no. Concentration Classification (Regul 2-Piperazin-1-ylethyla CAS No.	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008) Skin Irrit. 2 Skin Sens. 1A Aquatic Chronic 2 amin 140-31-8	X < H315 H317	25	%	
CAS No. EINECS no. Registration no. Concentration Classification (Regul 2-Piperazin-1-ylethyla	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008) Skin Irrit. 2 Skin Sens. 1A Aquatic Chronic 2	X < H315 H317 H411	25	%	
CAS No. EINECS no. Registration no. Concentration Classification (Regul 2-Piperazin-1-ylethyla CAS No. EINECS no. Registration no. Concentration	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008) Skin Irrit. 2 Skin Sens. 1A Aquatic Chronic 2 amin 140-31-8 205-411-0 01-2119471486-30-XXX >= 10	X < H315 H317 H411	25	%	
CAS No. EINECS no. Registration no. Concentration Classification (Regul 2-Piperazin-1-ylethyla CAS No. EINECS no. Registration no. Concentration	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008) Skin Irrit. 2 Skin Sens. 1A Aquatic Chronic 2 amin 140-31-8 205-411-0 01-2119471486-30-XXX >= 10 ation (EC) No. 1272/2008)	X < H315 H317 H411			
CAS No. EINECS no. Registration no. Concentration Classification (Regul 2-Piperazin-1-ylethyla CAS No. EINECS no. Registration no. Concentration	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008) Skin Irrit. 2 Skin Sens. 1A Aquatic Chronic 2 amin 140-31-8 205-411-0 01-2119471486-30-XXX >= 10 ation (EC) No. 1272/2008) Acute Tox. 3	X < H315 H317 H411 X < H311			
CAS No. EINECS no. Registration no. Concentration Classification (Regul 2-Piperazin-1-ylethyla CAS No. EINECS no. Registration no. Concentration	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008) Skin Irrit. 2 Skin Sens. 1A Aquatic Chronic 2 amin 140-31-8 205-411-0 01-2119471486-30-XXX >= 10 ation (EC) No. 1272/2008) Acute Tox. 3 Repr. 2	X < H315 H317 H411 X X < H311 H361			
CAS No. EINECS no. Registration no. Concentration Classification (Regul 2-Piperazin-1-ylethyla CAS No. EINECS no. Registration no. Concentration	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008) Skin Irrit. 2 Skin Sens. 1A Aquatic Chronic 2 amin 140-31-8 205-411-0 01-2119471486-30-XXX >= 10 ation (EC) No. 1272/2008) Acute Tox. 3 Repr. 2 STOT RE 1	X < H315 H317 H411 X X < H311 H361 H372			
CAS No. EINECS no. Registration no. Concentration Classification (Regul 2-Piperazin-1-ylethyla CAS No. EINECS no. Registration no. Concentration	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008) Skin Irrit. 2 Skin Sens. 1A Aquatic Chronic 2 amin 140-31-8 205-411-0 01-2119471486-30-XXX >= 10 ation (EC) No. 1272/2008) Acute Tox. 3 Repr. 2 STOT RE 1 Skin Corr. 1B	X +1315 H317 H411 X 			
CAS No. EINECS no. Registration no. Concentration Classification (Regul 2-Piperazin-1-ylethyla CAS No. EINECS no. Registration no. Concentration	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008) Skin Irrit. 2 Skin Sens. 1A Aquatic Chronic 2 amin 140-31-8 205-411-0 01-2119471486-30-XXX >= 10 ation (EC) No. 1272/2008) Acute Tox. 3 Repr. 2 STOT RE 1 Skin Corr. 1B Eye Dam. 1	X +1315 H317 H411 X 			
CAS No. EINECS no. Registration no. Concentration Classification (Regul 2-Piperazin-1-ylethyla CAS No. EINECS no. Registration no. Concentration	$\begin{array}{l} 61788-44-1\\ 262-975-0\\ 01-2119980970-27-XXX\\ >= 10\\ ation (EC) No. 1272/2008)\\ Skin Irrit. 2\\ Skin Sens. 1A\\ Aquatic Chronic 2\\ \hline \end{tabular}$ $\begin{array}{l} 140-31-8\\ 205-411-0\\ 01-2119471486-30-XXX\\ >= 10\\ ation (EC) No. 1272/2008)\\ Acute Tox. 3\\ Repr. 2\\ STOT RE 1\\ Skin Corr. 1B\\ Eye Dam. 1\\ Acute Tox. 4\\ \end{array}$	X < H315 H317 H411 X X H311 H361 H372 H314 H318 H302			
CAS No. EINECS no. Registration no. Concentration Classification (Regul 2-Piperazin-1-ylethyla CAS No. EINECS no. Registration no. Concentration	61788-44-1 262-975-0 01-2119980970-27-XXX >= 10 ation (EC) No. 1272/2008) Skin Irrit. 2 Skin Sens. 1A Aquatic Chronic 2 amin 140-31-8 205-411-0 01-2119471486-30-XXX >= 10 ation (EC) No. 1272/2008) Acute Tox. 3 Repr. 2 STOT RE 1 Skin Corr. 1B Eye Dam. 1	X +1315 H317 H411 X 			



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3,6,9-Triazaundecan	-1.11-diamin					
CAS No.	112-57-2					
EINECS no.	203-986-2					
Concentration	>=	10	<	25	%	
Classification (Regu	lation (EC) No. 2	272/2008)				
	Acute Tox. 4		H302			
	Acute Tox. 4		H312			
	Skin Corr. 1E	3	H314			
	Skin Sens. 1		H317			
	Aquatic Chro	nic 2	H411			
3-Aminopropyltrieth	oxysilan					
CAS No.	919-30-2					
EINECS no.	213-048-4					
Registration no.	01-21194804	179-24-XXX	X			
Concentration	>=	5	<	10	%	
Classification (Regu	Ilation (EC) No. 2	272/2008)				
	Acute Tox. 4		H302			
	Skin Corr. 1E	3	H314			

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

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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. 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 6.1C

Combustible substances of acute toxicity, category 3 / hazardous substances that are toxic or produce chronic effects Trade name: Hardener FH for cds-Adhesive

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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

2-Piperazin-1-ylethylamin Reference substance Type of value Reference group Duration of exposure Route of exposure Mode of action	2-Piperazin-1-ylethylamin Derived No Effect Level (DNEL) Worker Long term inhalative Systemic effects	
Concentration	10,6	mg/m³
Type of value Reference group Duration of exposure Route of exposure Mode of action Concentration	2-Piperazin-1-ylethylamin Derived No Effect Level (DNEL) Worker Acute inhalative Systemic effects 10,6	mg/m³
Type of value Reference group Duration of exposure Route of exposure Mode of action Concentration	2-Piperazin-1-ylethylamin Derived No Effect Level (DNEL) Worker Long term inhalative Local effects 0,015	mg/m³
Type of value Reference group Duration of exposure Route of exposure Mode of action Concentration	2-Piperazin-1-ylethylamin Derived No Effect Level (DNEL) Worker Short term inhalative Local effects 0,08	mg/m³
Type of value Reference group Duration of exposure Route of exposure Mode of action Concentration	2-Piperazin-1-ylethylamin Derived No Effect Level (DNEL) Worker Long term dermal Systemic effects 3,33	mg/kg/d
Type of value Reference group Duration of exposure Route of exposure	2-Piperazin-1-ylethylamin Derived No Effect Level (DNEL) Worker Short term dermal	



-		
Trade name: Hardener FH for cds-A		
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Mode of action	Systemic effects	
Concentration	20	mg/kg/d
Phenol, styrolisiert		
Reference substance	Phenol, styrolisiert	
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	2,1	mg/kg
	Phenol, styrolisiert	
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	ma/m3
Concentration	7,4	mg/m³
Predicted No Effect Conc	entration (PNEC)	
2-Piperazin-1-ylethylamin		
Reference substance	2 Dinarazin 1 ylathylamin	
	2-Piperazin-1-ylethylamin PNEC	
Type of value	Freshwater	
Type Concentration		m a /l
Concentration	0,058	mg/l
	2-Piperazin-1-ylethylamin	
Type of value	PNEC	
Туре	Marine	
Concentration	0,0058	mg/l
	2-Piperazin-1-ylethylamin	
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	0,58	mg/l
	-,	
	2-Piperazin-1-ylethylamin	
Type of value	PNEC	
Туре	Sewage treatment plant (STP)	
Concentration	250	mg/l
	2-Piperazin-1-ylethylamin	
Type of value	PNEC	
Type	Sediment	
Concentration	215	mg/kg
Concentration	210	ilig/kg
	2-Piperazin-1-ylethylamin	
Type of value	PNEC	
Туре	Marine sediment	
Concentration	21,5	mg/kg
	2-Piperazin-1-ylethylamin	
Type of value	PNEC	
Type	Soil	
Concentration	1	mg/kg



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Phenol, styrolisiert			
Reference substance	Phenol, styrolisiert		
Type of value	PNEC		
Туре	Freshwater		
Concentration	0,03	mg/l	
	Phenol, styrolisiert		
Type of value	PNEC		
Туре	Marine		
Concentration	0,003	mg/l	

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	yellowish
Odour	amine-like
Odour threshold	
Remarks	not determined
pH value	
Remarks	not determined
Melting point	
Remarks	not determined
Freezing point	
Remarks	not determined
Initial boiling point and boiling	g range
Remarks	not determined
Flash point	
Value	> 100
Evaporation rate (ether = 1) :	
Remarks	not determined
Flammability (solid, gas)	

°C



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not determined				
Upper/lower flammability	or explosive limits			
Remarks	not determined			
Vapour pressure				
Remarks	not determined			
Vapour density				
Remarks	not determined			
Density				
Value	0,96		g/cm ³	
Temperature	23	°C	-	
Solubility in water				
Remarks	not determined			
Solubility(ies)				
Remarks	not determined			
Partition coefficient: n-oct	anol/water			
Remarks	not determined			
Ignition temperature				
Remarks	not determined			
Decomposition temperatu	re			
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				

10.1. Reactivity

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

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ECTION 11: Toxicologic	al info	ormation		
11.1. Information on toxicolo				
Acute oral toxicity	gicai c			
ATE		7.692,30	mg/kg	
AIL		7.092,30	iiig/kg	
Method	calcula	ted value (Regulation	n (EC) No. 1272/2008)	
Remarks	Based	on available data, the	e classification criteria ar	e not met.
Acute oral toxicity (Compo	onents)			
3,6,9-Triazaundecan-1,11-di	amin			
Species	rat			
LD50		3990	mg/kg	
2-Piperazin-1-ylethylamin				
Reference substance		enzene		
Species LD50	rat	2140	mg/kg	
Phenol, styrolisiert		2140	iiig/kg	
Species	rat			
LD50	>	2000	mg/kg	
Fettsäuren, Tallöl-, Reaktions	produkt	e m. Tetraethylenpe		
Species	rat			
LD50	>	2000	mg/kg	
Acute dermal toxicity				
ATE		2.717,45 61	mg/kg	
Method Remarks			n (EC) No. 1272/2008) e classification criteria ar	e not met.
Acute dermal toxicity (Cor	nponen	ts)		
3,6,9-Triazaundecan-1,11-di	amin			
Species	rabbit			
LD50		1260	mg/kg	
2-Piperazin-1-ylethylamin	_			
Reference substance		razin-1-ylethylamin		
Species LD50	rabbit	866	mg/kg	
Phenol, styrolisiert		000	mg/kg	
Species	rat			
LD50	>	2000	mg/kg	
Acute inhalational toxicity			0.0	
Remarks		on available data, the	e classification criteria ar	e not met.
Acute inhalative toxicity (
Phenol, styrolisiert Species	mouse			
LC50	mouse	158,3	mg/l	
Duration of exposure		4 h	J.	
Skin corrosion/irritation				
evaluation	corrosi	ve		
Remarks		assification criteria ar	e met.	
Serious eye damage/irritat	ion			
evaluation	corrosi	NO.		



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Remarks	The classification criteria are met.	
Sensitization		
evaluation	May cause sensitization by skin contact.	
Remarks	The classification criteria are met.	
Subacute, subchronic,	-	
Remarks	not determined	
Mutagenicity		
Remarks	Based on available data, the classification crite	ria are not met.
Reproductive toxicity		
evaluation Remarks	Suspected of damaging fertility. Suspected of c The classification criteria are met.	lamaging the unborn child.
Carcinogenicity		
Remarks	Based on available data, the classification crite	ria are not met.
Specific Target Organ	Toxicity (STOT)	
Single exposure		
Remarks	Based on available data, the classification crite	ria are not met.
Repeated exposure		
Remarks	The classification criteria are met.	
evaluation	Causes damage to organs through prolonged of	or repeated exposure
Aspiration hazard		
Based on available data	a, the classification criteria are not met.	
Based on available data Experience in practice		
Based on available data Experience in practice Inhalation may lead to ir	a, the classification criteria are not met. rritation of the respiratory tract.	
Based on available data Experience in practice Inhalation may lead to ir Other information	rritation of the respiratory tract.	
Based on available data Experience in practice Inhalation may lead to ir	rritation of the respiratory tract.	
Based on available data Experience in practice Inhalation may lead to ir Other information No toxicological data are	rritation of the respiratory tract. e available.	
Based on available data Experience in practice Inhalation may lead to ir Other information No toxicological data are	rritation of the respiratory tract. e available.	
Based on available data Experience in practice Inhalation may lead to in Other information No toxicological data are ECTION 12: Ecologic 12.1. Toxicity	rritation of the respiratory tract. e available.	
Based on available data Experience in practice Inhalation may lead to ir Other information No toxicological data are	rritation of the respiratory tract. e available.	
Based on available data Experience in practice Inhalation may lead to in Other information No toxicological data are ECTION 12: Ecologic 12.1. Toxicity	rritation of the respiratory tract. e available.	
Based on available data Experience in practice Inhalation may lead to ir Other information No toxicological data are ECTION 12: Ecologic 12.1. Toxicity General information	rritation of the respiratory tract. e available. cal information	
Based on available data Experience in practice Inhalation may lead to in Other information No toxicological data are ECTION 12: Ecologic 12.1. Toxicity General information not determined	rritation of the respiratory tract. e available. cal information	
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			4
ade name: Hardener FH for cds-	Adnesive Version: 2	2 0 / EN	Date revised 12.12.20
ubstance number: 11465		Version: 1.0 / EN	Print date: 12.12.20
	Replaces		
Daphnia toxicity (Compo	nents)		
3,6,9-Triazaundecan-1,11-			
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 ł	•	
Phenol, styrolisiert			
Reference substance	Phenol, styrolisiert		
Species	Daphnia magna		
EC50	4,6	mg/l	
Duration of exposure	48 ł	-	
Fettsäuren, Tallöl-, Reaktio	nsprodukte m. Tetraetł	hylenpentamin	
Species	Daphnia magna		
EC50	0,18	mg/l	
Duration of exposure	48 ł		
Algae toxicity (Compone	nts)		
	-		
3,6,9-Triazaundecan-1,11-			
Species IC50	Pseudokirchneriella	•	
Duration of exposure	2 72 h	mg/l	
•	12 1	1	
2-Piperazin-1-ylethylamin	Dooudokirobnoriollo	aubaanitata	
Species EC50	Pseudokirchneriella	•	
Duration of exposure	> 1000 72 h	mg/l	
-	12 1	1	
Phenol, styrolisiert Reference substance	Dhanal aturalisiart		
Species	Phenol, styrolisiert Scenedesmus subs	picatus	
EL50	3,14	mg/l	
Duration of exposure	72 ł	8	
Fettsäuren, Tallöl-, Reaktio			
Species	Pseudokirchneriella		
EC50	0,638	mg/l	
Duration of exposure	72 ł	.	
Bacteria toxicity (Compo		-	
	-		
Fettsäuren,Tallöl-,Reaktio		hylenpentamin	
Species	activated sludge		
EC50	114 3 h	mg/l	
Duration of exposure	3 ł	1	
2.2. Persistence and degr	adability		
General information	-		
not determined			
2.3. Bioaccumulative pote	ential		
General information			
not determined			
Partition coefficient: n-o	ctanol/water		
Remarks	not determined		
	addiciont (log Dow)	(Components)	

Trade name: Hardener FH for cds-Adh	esive	
	Version: 2.0 / EN	Date revised 12.12.202
Substance number: 11465	Replaces Version: 1.0 / EN	Print date: 12.12.202
3-Aminopropyltriethoxysilan log Pow	1,7	
12.4. Mobility in soil General information not determined		
12.5. Results of PBT and vPvB General information not determined	3 assessment	
12.6. Other adverse effects		
General information not determined		
General information / ecolog	3y erways or waste water canal. Avoid release in	to the atmosphere

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



Trade name: Hardener FH for cds-Adhesive			
	Version: 2	Date revised 12.12.2022	
Substance number: 11465	Replaces	Version: 1.0 / EN	Print date: 12.12.2022
	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. (3,6,9- Triazaundecan-1,11-diamin, 2- Piperazin-1-ylethylamin)	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3,6,9- Triazaundecan-1,11-diamin, 2- Piperazin-1-ylethylamin)	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3,6,9- Triazaundecan-1,11-diamin, 2- Piperazin-1-ylethylamin)
14.3. Transport hazard class(es)	8	8	8
Label	A A A A A A A A A A A A A A A A A A A	line for the former of the for	C C C C C C C C C C C C C C C C C C C
14.4. Packing group	111	111	111
Limited Quantity	51		
Transport category	3		
14.5. Environmental hazards	¥2	Marine Pollutant	¥2
	ENVIRONMENTALLY HAZARDOUS	\checkmark	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			
VOC				
VOC (EU)	6,5	%	62,4	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.



Trade name: Hardener FH for cd	s-Adhesive			
	Version: 2.0 / EN	Date revised 12.12.2022		
Substance number: 11465	Replaces Version: 1.0 / EN	Print date: 12.12.2022		
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.			
H400	Very toxic to aquatic life.			
H410	Very toxic to aquatic life with long lasting effect	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.			
CLP categories listed i	n Chapter 3			
Acute Tox. 3	Acute toxicity, Category 3			
Acute Tox. 4	Acute toxicity, Category 4			
Aquatic Acute 1	Hazardous to the aquatic environment, acute,	Category 1		
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic, Category 1			
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. 1A	Skin corrosion, Category 1A			
Skin Corr. 1B	Skin corrosion, Category 1B			
Skin Irrit. 2	Skin irritation, Category 2			
Skin Sens. 1	Skin sensitization, Category 1			
Skin Sens. 1A	Skin sensitization, Category 1A			
STOT RE 1	Specific target organ toxicity - repeated exposure, Category 1			
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Information about Safety Data Sheets Preparers

Oliver Nickel, o.nickel@cds-polymere.de

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.