

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 09.08.2021

Version number 13

Revision: 09.08.2021

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

1.1 Product identifier

Trade name: **FLEXY_ZEM (CEMFLEX)**

Article number: 410xx

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

No further relevant information available.

Application of the substance / the mixture

Silicate sealing

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
Lechstrasse 28
D 90451 Nürnberg

Tel. +49(0)911-642960
Fax. +49(0)911-644456
e-mail info@akemi.de

Further information obtainable from:

Laboratory

1.4 Emergency telephone number:

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
Tel. +49(0)911-64296-59
Reachable during the following office hours:
Monday – Thursday from 07:30 a.m. to 16:30 p.m.
Friday from 07:30 a.m. to 13:30 p.m.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 The product is not classified, according to the CLP regulation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Void

Hazard pictograms

Void

Signal word

Void

Hazard-determining components of labelling:

Not applicable.

Hazard statements

Void

Additional information:

Products treated with biocide OIT (CAS 26530-20-1).
Contains N-(3-(trimethoxysilyl)propyl)ethylenediamine. May produce an allergic reaction.
Safety data sheet available on request.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB:

1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 58190-57-1 EC number: 611-631-1 Reg.nr.: 01-2119982962-22-0000	Ethyl tris (acetoximo) silane STOT RE 2, H373	1-5%
CAS: 58190-62-8 EC number: 700-810-0 Reg.nr.: 01-2120006148-66-XXXX	2-Pentanon, O,O',O''-(ethenylsilylidyn)trioxim STOT RE 2, H373 Acute Tox. 4, H302; Acute Tox. 4, H312; Eye Irrit. 2, H319	1-5%

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 09.08.2021

Version number 13

Revision: 09.08.2021

Trade name: FLEXY_ZEM (CEMFLEX)

(Contd. of page 1)

CAS: 1760-24-3
 EINECS: 217-164-6
 Reg.nr.: 01-2119970215-39

N-(3-(trimethoxysilyl)propyl)ethylenediamine
 STOT RE 2, H373
 Eye Dam. 1, H318
 Acute Tox. 4, H332; Skin Sens. 1, H317
 vPvB

<1%

· Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General information: Immediately remove any clothing soiled by the product.
No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
 Carbon monoxide (CO)
 Nitrogen oxides (NO_x)

5.3 Advice for firefighters

- Protective equipment: Wear self-contained respiratory protective device.
- Additional information Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.
 Inform respective authorities in case of seepage into water course or sewage system.
 Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Ensure adequate ventilation.

(Contd. on page 3)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 09.08.2021

Version number 13

Revision: 09.08.2021

Trade name: FLEXY_ZEM (CEMFLEX)

(Contd. of page 2)

· **6.4 Reference to other sections** No dangerous substances are released.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

No special measures required.
Ensure good ventilation/exhaustion at the workplace.

Information about fire - and explosion protection:

No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.
Prevent any seepage into the ground.
No special requirements.

Information about storage in one common storage facility:

Store away from foodstuffs.

Further information about storage conditions:

Store in a cool place.
Store in dry conditions.

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information about design of technical facilities:

No further data; see item 7.

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

DNELs

58190-57-1 Ethyl tris (acetonoximo) silane

Oral	DNEL (Langzeit-wiederholt)	0.03 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	0.059 mg/kg bw/day (ARB)
Inhalative	DNEL (Langzeit-wiederholt)	0.03 mg/kg bw/day (BEV)
		0.419 mg/m ³ Air (ARB)
		0.103 mg/m ³ Air (BEV)

58190-62-8 2-Pentanon, O,O',O''-(ethenylsilylidyn)trioxim

Oral	DNEL (Langzeit-wiederholt)	0.0325 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	0.065 mg/kg bw/day (ARB)
Inhalative	DNEL (Langzeit-wiederholt)	0.0325 mg/kg bw/day (BEV)
		0.229 mg/m ³ Air (ARB)
		0.0565 mg/m ³ Air (BEV)

1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine

Oral	DNEL (Langzeit-wiederholt)	2.5 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	5 mg/kg bw/day (ARB)
		17 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	5 mg/kg bw/day (ARB)
		2.5 mg/kg bw/day (BEV)
		35.3 mg/m ³ Air (ARB)
		8.7 mg/m ³ Air (BEV)

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 09.08.2021

Version number 13

Revision: 09.08.2021

Trade name: FLEXY_ZEM (CEMFLEX)

(Contd. of page 3)

· PNECs	
58190-57-1 Ethyl tris (acetoximo) silane	
PNEC (wässrig)	2.4 mg/l (KA) 0.24 mg/l (SW)
PNEC (fest)	205 mg/kg Trockengew (MWS) 2,047 mg/kg Trockengew (SWS)
58190-62-8 2-Pentanon, O,O',O''-(ethenylsilylidyn)trioxim	
PNEC (wässrig)	2.22 mg/l (KA) 0.0103 mg/l (MW) 0.103 mg/l (SW)
PNEC (fest)	0.059 mg/kg Trockengew (MWS) 0.586 mg/kg Trockengew (SWS)
1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine	
PNEC (wässrig)	25 mg/l (KA) 0.0062 mg/l (MW) 0.062 mg/l (SW) 0.62 mg/l (WAS)
PNEC (fest)	0.0075 mg/kg Trockengew (BO) 0.005 mg/kg Trockengew (MWS) 0.05 mg/kg Trockengew (SWS)

· Additional information: The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· Personal protective equipment:
· General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing

Do not inhale gases / fumes / aerosols.

· Respiratory protection:

Not necessary if room is well-ventilated.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Short term filter device:

Filter A/P2

· Protection of hands:

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Butyl rubber, BR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:

Goggles recommended during refilling

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 09.08.2021

Version number 13

Revision: 09.08.2021

Trade name: FLEXY_ZEM (CEMFLEX)

· Body protection: Protective work clothing

(Contd. of page 4)

SECTION 9: Physical and chemical properties**· 9.1 Information on basic physical and chemical properties****· General Information****· Appearance:**

Form:	Pasty
Colour:	Different according to colouring
Odour:	Specific type

· pH-value at 20 °C: 7

· Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.

· Flash point: Not applicable.

· Ignition temperature: ~430 °C

· Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Product does not present an explosion hazard.

· Vapour pressure: Not determined.

· Density at 20 °C: 1.25 g/cm³

· Solubility in / Miscibility with water: Not miscible or difficult to mix.

· Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

· **9.2 Other information** No further relevant information available.**SECTION 10: Stability and reactivity**· **10.1 Reactivity** No further relevant information available.**· 10.2 Chemical stability**

· Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

· 10.3 Possibility of hazardous reactions

No dangerous reactions known.

· 10.4 Conditions to avoid

No further relevant information available.

· 10.5 Incompatible materials:

strong oxidizing agents

· 10.6 Hazardous decomposition products:

Small quantities of formaldehyde may be formed

SECTION 11: Toxicological information**· 11.1 Information on toxicological effects**

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

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	20,040-40,080 mg/kg (rat)
Dermal	LD50	40,080 mg/kg

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 09.08.2021

Version number 13

Revision: 09.08.2021

Trade name: FLEXY_ZEM (CEMFLEX)

(Contd. of page 5)

58190-57-1 Ethyl tris (acetoximo) silane

Oral	LD50	2,500 mg/kg (rat)
	NOAEL	11.87 mg/kg (rat)
Dermal	LD50	2,500 mg/kg (rat)

58190-62-8 2-Pentanon, O,O',O''-(ethenylsilylidyn)trioxim

Oral	LD50	1,000-2,000 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rat)

1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine

Oral	LD50	2,995 mg/kg (rat)
	NOEL	≥500 mg/kg (rat) (OECD 422)
	NOAEL	≥500 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	1.49 mg/l (rat)

- Primary irritant effect:
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Additional toxicological information:
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information**12.1 Toxicity**

· Aquatic toxicity:

58190-57-1 Ethyl tris (acetoximo) silane

EC50/48h	678.73 mg/l (daphnia magna) (OECD-Prüfrichtlinie 202)
NOEC	62.34 mg/kg (Selenastrum capricornutum) (OECD-Prüfrichtlinie 201)
EC50/72h	315.36 mg/l (Selenastrum capricornutum) (OECD-Prüfrichtlinie 201)
LC50/96h	696.76 mg/l (Pimephales promelas) (OECD-Prüfrichtlinie 203)

58190-62-8 2-Pentanon, O,O',O''-(ethenylsilylidyn)trioxim

EC50/48h	100-117 mg/l (daphnia magna)
EC50/72h	50-103 mg/l (green alge)
LC50/96h	100-117 mg/l (piscis)

1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine

EC50	435 mg/l (Klärschlamm: Atmungs-/Vermehrungshemmung)
IC50/72h	8.8 mg/l (green alge) (OECD 201)
EC50/48h	81 mg/l (daphnia magna)
EC50/16h	67 mg/l (pseudomonas putida)
NOEC	3.1 mg/kg (green alge) (OECD 201)
	≥1,000 mg/kg (Eisenia fetida (Regenwürmer)) (OECD 207)
NOEC/21d	>1 mg/l (daphnia magna)
EC50/48h	87.4 mg/l (daphnia magna)
EC50/72h	5 mg/l (green alge)

(Contd. on page 7)

Safety data sheet

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Version number 13

Revision: 09.08.2021

Trade name: FLEXY_ZEM (CEMFLEX)

(Contd. of page 6)

LC50/96h	126 mg/l (Scenedesmus subspicatus)
	344 mg/l (Brachydanio rerio)
	597 mg/l (Danio rerio.)
	168 mg/l (pimephales promelas)

· **12.2 Persistence and degradability**

No further relevant information available.

· **12.3 Bioaccumulative potential**

No further relevant information available.

· **12.4 Mobility in soil**

No further relevant information available.

· Additional ecological information:

· General notes:

Do not allow product to reach ground water, water course or sewage system.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

· **12.5 Results of PBT and vPvB assessment**

· PBT: Not applicable.

· vPvB:

1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine

· **12.6 Other adverse effects**

No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· Recommendation

Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
Smaller quantities can be disposed of with household waste.

· Uncleaned packaging:

· Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

SECTION 14: Transport information

· **14.1 UN-Number**

· ADR, ADN, IMDG, IATA

Void

· **14.2 UN proper shipping name**

· ADR, ADN, IMDG, IATA

Void

· **14.3 Transport hazard class(es)**

· ADR, ADN, IMDG, IATA

· Class

Void

· **14.4 Packing group**

· ADR, IMDG, IATA

Void

· **14.5 Environmental hazards:**

· Marine pollutant:

No

· **14.6 Special precautions for user**

Not applicable.

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· Transport/Additional information:

Not dangerous according to the above specifications.

· UN "Model Regulation":

Void

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

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Version number 13

Revision: 09.08.2021

Trade name: FLEXY_ZEM (CEMFLEX)

(Contd. of page 7)

SECTION 15: Regulatory information**· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**· Directive 2012/18/EU· Named dangerous substances - ANNEX I

None of the ingredients is listed.

· National regulations:· Waterhazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

· Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is listed.

· VOC EU

0.0 g/l

· 15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H373 May cause damage to organs through prolonged or repeated exposure.

· Department issuing SDS:

Laboratory

· Contact:

Dieter Zimmermann

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 DNEL: Derived No-Effect Level (REACH)
 PNEC: Predicted No-Effect Concentration (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 SVHC: Substances of Very High Concern
 vPvB: very Persistent and very Bioaccumulative
 Acute Tox. 4: Acute toxicity – Category 4
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 Skin Sens. 1: Skin sensitisation – Category 1
 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

· * Data compared to the previous version altered.

Adaptation in accordance with REACH directive 1907/2006/EC