

(GB)

Page 1 of 6
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0004
 Replacing version dated / version: 06.01.2017 / 0003
 Valid from: 07.03.2017
 PDF print date: 29.03.2017
 COSMO EP-201.120

(COSMOFEN AL 1630 Binder)

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

COSMO EP-201.120

(COSMOFEN AL 1630 Binder)

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

Relevant identified uses of the substance or mixture:

Adhesive
 Sector of use [SU]:
 SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

(GB)
 Weiss Chemie + Technik GmbH & Co.KG, Hansastrasse 2, 35708 Haiger, Germany
 Phone: +49(0)2773/815-0, Fax: ---
 msds@weiss-chemie.de, www.weiss-chemie.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:
 +49 (0) 700 / 24 112 112 (WIC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Eye Irrit.	2	H319-Causes serious eye irritation.
Skin Irrit.	2	H315-Causes skin irritation.
Skin Sens.	1	H317-May cause an allergic skin reaction.
Aquatic	2	H411-Toxic to aquatic life with long lasting effects.
Chronic		

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



Warning

H319-Causes serious eye irritation. H315-Causes skin irritation. H317-May cause an allergic skin reaction. H411-Toxic to aquatic life with long lasting effects.

P261-Avoid breathing vapours or spray. P273-Avoid release to the environment. P280-Wear protective gloves and eye protection / face protection.
 P302+P352-IF ON SKIN: Wash with plenty of water and soap. P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312-Call a POISON CENTRE / doctor if you feel unwell.

EUH205-Contains epoxy constituents. May produce an allergic reaction.

Bisphenol F epoxy resin
 reaction product bisphenol A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)
 1,6-Bis(2,3-epoxypropoxy)hexane

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
 The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substance

n.a.

3.2 Mixture

Bisphenol F epoxy resin	
Registration number (REACH)	01-2119454392-40-XXXX
Index	---
EINECS, ELINCS, NLP	500-006-8 (NLP)
CAS	9003-36-5
content %	30-50
Classification according to Regulation (EC) 1272/2008 (CLP)	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411

reaction product bisphenol A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)	
Registration number (REACH)	01-2119456619-26-XXXX
Index	603-074-00-8
EINECS, ELINCS, NLP	500-033-5 (NLP)
CAS	25068-38-6
content %	10-40
Classification according to Regulation (EC) 1272/2008 (CLP)	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411

1,6-Bis(2,3-epoxypropoxy)hexane	
Registration number (REACH)	01-2119463471-41-XXXX
Index	---
EINECS, ELINCS, NLP	240-260-4
CAS	16096-31-4
content %	1-5
Classification according to Regulation (EC) 1272/2008 (CLP)	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.
 The substances named in this section are given with their actual, appropriate classification!
 For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

Never pour anything into the mouth of an unconscious person!

Inhalation

Remove person from danger area.
 Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.
 Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.
 Do not induce vomiting - give copious water to drink. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1. In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours. The following may occur:
 Allergic reaction possible.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water jet spray/foam/CO2/dry extinguisher

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon
 Hydrogen chloride
 Toxic gases

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.
 Protective respirator with independent air supply.
 According to size of fire
 Full protection, if necessary.
 Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air.
 Avoid contact with eyes or skin.
 If applicable, caution - risk of slipping.

6.2 Environmental precautions

If leakage occurs, dam up.
 Resolve leaks if this possible without risk.
 Prevent from entering drainage system.
 Prevent surface and ground-water infiltration, as well as ground penetration.
 If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.
 Keep away from sources of ignition - Do not smoke.
 Avoid contact with eyes or skin.

GB

Page 2 of 6
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
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Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
 Observe directions on label and instructions for use.
 Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and at end of work.
 Keep away from food, drink and animal feedingstuffs.
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.
 Not to be stored in gangways or stair wells.
 Store product closed and only in original packing.
 Do not store with oxidizing agents.
 Under all circumstances prevent penetration into the soil.
 Store cool.
 Store in a dry place.

7.3 Specific end use(s)

Adhesive

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Chemical Name	Calcium carbonate	Content %:
WEL-TWA: 4 mg/m3 (respirable dust), 10 mg/m3 (total inhalable dust)	WEL-STEL: ---	---
Monitoring procedures: ---		
BMGV: ---		Other information: ---

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
 ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

Bisphenol F epoxy resin

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,003	mg/l	
	Environment - marine		PNEC	0,0003	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,0254	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	0,294	mg/kg dw	
	Environment - sediment, marine		PNEC	0,0294	mg/kg dw	
	Environment - soil		PNEC	0,237	mg/kg dw	
Consumer	Human - oral	Long term, systemic effects	DNEL	6,25	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	62,5	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	8,7	mg/m3	
Industrial / commercial	Human - inhalation	Long term, systemic effects	DNEL	29,39	mg/m3	
Workers / employees	Human - dermal	Short term, local effects	DNEL	0,0083	mg/cm2	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	104,15	mg/kg bw/day	

reaction product bisphenol A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,003	mg/l	
	Environment - marine		PNEC	0,0003	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,018	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	0,5	mg/kg dw	
	Environment - sediment, marine		PNEC	0,5	mg/kg dw	
	Environment - soil		PNEC	0,05	mg/kg dw	
	Environment - oral (animal feed)		PNEC	11	mg/kg	
Consumer	Human - dermal	Short term, systemic effects	DNEL	3,571	mg/kg bw/day	
Consumer	Human - oral	Short term, systemic effects	DNEL	0,75	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,75	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,75	mg/m3	

Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,75	mg/m3	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	8,33	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	12,25	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	8,3	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	12,3	mg/m3	

1,6-Bis(2,3-epoxypropoxy)hexane

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,0115	mg/l	
	Environment - marine		PNEC	0,00115	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,115	mg/l	
	Environment - sewage treatment plant		PNEC	1	mg/l	
	Environment - sediment, freshwater		PNEC	0,283	mg/kg dw	
	Environment - sediment, marine		PNEC	0,0283	mg/kg dw	
	Environment - soil		PNEC	0,223	mg/kg dw	
Consumer	Human - dermal	Short term, systemic effects	DNEL	1,7	mg/kg bw/day	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	2,9	mg/m3	
Consumer	Human - oral	Short term, systemic effects	DNEL	0,83	mg/kg bw/day	
Consumer	Human - dermal	Short term, local effects	DNEL	0,0136	mg/cm2	
Consumer	Human - dermal	Long term, systemic effects	DNEL	1,7	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	2,9	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,83	mg/kg bw/day	
Consumer	Human - dermal	Long term, local effects	DNEL	0,0136	mg/cm2	
Consumer	Human - inhalation	Long term, local effects	DNEL	0,27	mg/m3	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	4,9	mg/m3	
Workers / employees	Human - dermal	Short term, local effects	DNEL	0,0226	mg/cm2	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	2,8	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	4,9	mg/m3	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,0226	mg/cm2	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	0,44	mg/m3	

Calcium carbonate

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - sewage treatment plant		PNEC	100	mg/l	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	10	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	1,06	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	10	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	4,26	mg/m3	

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
 Applies only if maximum permissible exposure values are listed here.
 Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.
 These are specified by e.g. EN 14042.
 EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and at end of work.
 Keep away from food, drink and animal feedingstuffs.
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
 Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
 Chemical resistant protective gloves (EN 374).
 Recommended
 Safety gloves made of fluorocarbon rubber (EN 374).
 Protective nitrile gloves (EN 374)
 Minimum layer thickness in mm:
 >= 0,5
 Permeation time (penetration time) in minutes:
 >= 240

The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.
 The recommended maximum wearing time is 50% of breakthrough time.
 Protective hand cream recommended.

Skin protection - Other:
 Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

GB

Page 3 of 6

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 07.03.2017 / 0004

Replacing version dated / version: 06.01.2017 / 0003

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COSMO EP-201.120

(COSMOFEN AL 1630 Binder)

Respiratory protection:

Normally not necessary.

If air supply is not sufficient, wear protective breathing apparatus.

Filter A P2 (EN 14387), code colour brown, white

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Pastelike, Liquid
Colour:	Beige
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	n.a.
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	n.a.
Evaporation rate:	Not determined
Flammability (solid, gas):	n.a.
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	~1,45 g/cm ³ (20°C)
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Product is not explosive.
Oxidising properties:	No
9.2 Other information	
Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

See also section 7.

Strong heat

10.5 Incompatible materials

See also section 7.

Avoid contact with strong oxidizing agents.

Avoid contact with strong alkalis.

Avoid contact with strong acids.

10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

COSMO EP-201.120

(COSMOFEN AL 1630 Binder)

Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.

Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.
Other information:						Classification according to calculation procedure.

Bisphenol F epoxy resin						
Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes
Acute toxicity, by oral route:	LD50	>10000	mg/k g	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/k g	Rabbit		
Skin corrosion/irritation:				Rabbit		Irritant
Serious eye damage/irritation:				Rabbit		Irritant
Respiratory or skin sensitisation:				Guinea pig		Sensitising (skin contact)

reaction product bisphenol A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)						
Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/k g	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/k g	Rabbit		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Sensitising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Positive
Carcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAE L	50	mg/k g bw/d			
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAE L	100	mg/k g bw/d			
Symptoms:						diarrhoea, weight loss

1,6-Bis(2,3-epoxypropoxy)hexane						
Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes
Acute toxicity, by oral route:	LD50	2900	mg/k g	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/k g	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	0,035	mg/l 4h	Rat		Maximum achievable concentration.
Skin corrosion/irritation:				Rabbit		Irritant
Serious eye damage/irritation:				Rabbit		Irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Sensitising (skin contact)

Calcium carbonate						
Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/k g	Rat	OECD 420 (Acute Oral toxicity - Fixed Dose Procedure)	
Acute toxicity, by dermal route:	LD50	>2000	mg/k g	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>3	mg/l 4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Not sensitising

Page 4 of 6
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
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 COSMO EP-201.120

(COSMOFEN AL 1630 Binder)

Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Carcinogenicity:						No indications of such an effect.
Reproductive toxicity:	NOEL	1000	mg/kg bw/d	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Development. Tox. Screening Test)	
Specific target organ toxicity - single exposure (STOT-SE):						No indications of such an effect.
Specific target organ toxicity - repeated exposure (STOT-RE):						No indications of such an effect.
Aspiration hazard:						No
Symptoms:						No indications of such an effect.
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOEL	1000	mg/kg bw/d	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Development. Tox. Screening Test)	
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOEL	0,212	mg/l	Rat	OECD 413 (Subchronic Inhalation Toxicity - 90-Day Study)	

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

COSMO EP-201.120

(COSMOFEN AL 1630 Binder)

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Other adverse effects:							n.d.a.

Bisphenol F epoxy resin

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	2	mg/l			
12.1. Toxicity to daphnia:	LC50	48h	2,55	mg/l	Daphnia magna		
12.1. Toxicity to daphnia:	EC50	24h	2	mg/l			
12.1. Toxicity to algae:	LC50	72h	1,8	mg/l	Scenedesmus subspicatus		
12.2. Persistence and degradability:							Not readily biodegradable

reaction product bisphenol A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1,2	mg/l	Oncorhynchus mykiss	U.S. EPA ECOTOX Database	

12.1. Toxicity to daphnia:	EC50	48h	1,1	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	9,4	mg/l	Selenastrum capricornutum	U.S. EPA ECOTOX Database	
12.2. Persistence and degradability:		28d	5	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		3,8				

1,6-Bis(2,3-epoxypropoxy)hexane

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	30	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	47	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	LC50	48h	23,1	mg/l			
12.2. Persistence and degradability:		28d	71	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	
12.3. Bioaccumulative potential:	BCF		3,57				calculated value
12.3. Bioaccumulative potential:	Log Pow		0,82				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	IC50	28d	>100	mg/l	activated sludge		

Calcium carbonate

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h			Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	No observation with saturated solution of test material.
12.1. Toxicity to daphnia:	EC50	48h			Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	No observation with saturated solution of test material.
12.1. Toxicity to algae:	EC50	72h	>14	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/N OEL	72h	14	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:							Not relevant for inorganic substances
12.3. Bioaccumulative potential:							Not to be expected
12.4. Mobility in soil:							n.a.
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50	3h	>1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Toxicity to bacteria:	NOEC/N OEL	3h	1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other organisms:	EC50	14d	>1000	mg/kg dw	Eisenia foetida	OECD 207 (Earthworm, Acute Toxicity Tests)	

(GB)

Page 5 of 6
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0004
 Replacing version dated / version: 06.01.2017 / 0003
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 COSMO EP-201.120

(COSMOFEN AL 1630 Binder)

Other organisms:	EC50	21d	>10 00	mg/k g dw		OECD 208 (Terrestrial Plants, Growth Test)	Avena sativa
Other organisms:	EC50	21d	>10 00	mg/k g dw		OECD 208 (Terrestrial Plants, Growth Test)	Glycine max
Other organisms:	EC50	21d	>10 00	mg/k g dw		OECD 208 (Terrestrial Plants, Growth Test)	Lycopersic on esculentum
Other organisms:	EC50	28d	>10 00	mg/k g dw		OECD 216 (Soil Microorganis ms - Nitrogen Transformati on Test)	
Other organisms:	NOEC/N OEL	14d	100 0	mg/k g dw	Eisenia foetida	OECD 207 (Earthworm, Acute Toxicity Tests)	
Other organisms:	NOEC/N OEL	21d	100 0	mg/k g dw		OECD 208 (Terrestrial Plants, Growth Test)	Glycine max
Other organisms:	NOEC/N OEL	21d	100 0	mg/k g dw		OECD 208 (Terrestrial Plants, Growth Test)	Avena sativa
Other organisms:	NOEC/N OEL	21d	100 0	mg/k g dw		OECD 208 (Terrestrial Plants, Growth Test)	Glycine max
Other organisms:	NOEC/N OEL	21d	100 0	mg/k g dw		OECD 208 (Terrestrial Plants, Growth Test)	Lycopersic on esculentum
Other organisms:	NOEC/N OEL	28d	100 0	mg/k g dw		OECD 216 (Soil Microorganis ms - Nitrogen Transformati on Test)	
Water solubility:			0,01 66	g/l		OECD 105 (Water Solubility)	
Water solubility:			0,01 66	g/l		OECD 105 (Water Solubility)	20°C

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)
 08 04 09 waste adhesives and sealants containing organic solvents or other hazardous substances
 20 01 27 paint, inks, adhesives and resins containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.
 Pay attention to local and national official regulations.
 E.g. dispose at suitable refuse site.
 E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations.
 Empty container completely.
 Uncontaminated packaging can be recycled.
 Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

14.1. UN number: 3082

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:
 UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN)
 14.3. Transport hazard class(es): 9
 14.4. Packing group: III
 Classification code: M6
 LQ: 5 L
 14.5. Environmental hazards: environmentally hazardous
 Tunnel restriction code: -

Transport by sea (IMDG-code)

14.2. UN proper shipping name:
 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN)
 14.3. Transport hazard class(es): 9
 14.4. Packing group: III
 EmS: F-A, S-F
 Marine Pollutant: Yes
 14.5. Environmental hazards: environmentally hazardous

Transport by air (IATA)

14.2. UN proper shipping name:
 Environmentally hazardous substance, liquid, n.o.s. (EPOXY RESIN)
 14.3. Transport hazard class(es): 9
 14.4. Packing group: III
 14.5. Environmental hazards: environmentally hazardous

14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained.
 All persons involved in transporting must observe safety regulations.
 Precautions must be taken to prevent damage.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Freighted as packaged goods rather than in bulk, therefore not applicable.
 Minimum amount regulations have not been taken into account.
 Danger code and packing code on request.
 Comply with special provisions.

SECTION 15: Regulatory information

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

Observe restrictions:
 Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC): 0 g/l

Observe youth employment law (German regulation).

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 2, 16

These details refer to the product as it is delivered.
 Employee instruction/training in handling hazardous materials is required.
 Employee training in handling dangerous goods is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Eye Irrit. 2, H319	Classification according to calculation procedure.
Skin Irrit. 2, H315	Classification according to calculation procedure.
Skin Sens. 1, H317	Classification according to calculation procedure.
Aquatic Chronic 2, H411	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

Eye Irrit. — Eye irritation
 Skin Irrit. — Skin irritation
 Skin Sens. — Skin sensitization
 Aquatic Chronic — Hazardous to the aquatic environment - chronic

Any abbreviations and acronyms used in this document:

AC	Article Categories
acc., acc. to	according, according to
ACGIH	American Conference of Governmental Industrial Hygienists
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOEL	Acceptable Operator Exposure Level
AOX	Adsorbable organic halogen compounds
approx.	approximately
Art., Art. no.	Article number
ATE	Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BAM	Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA	Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF	Bioconcentration factor
BGV	Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
BHT	Butylhydroxytoluol (= 2,6-Di- <i>t</i> -butyl-4-methyl-phenol)
BMGV	Biological monitoring guidance value (EH40, UK)
BOD	Biochemical oxygen demand
BSEF	Bromine Science and Environmental Forum
bw	body weight
CAS	Chemical Abstracts Service
CEC	Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
CESIO	Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
CIPAC	Collaborative International Pesticides Analytical Council
CLP	Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR	carcinogenic, mutagenic, reproductive toxic
COD	Chemical oxygen demand
CTFA	Cosmetic, Toiletory, and Fragrance Association
DMEL	Derived Minimum Effect Level
DNEL	Derived No Effect Level
DOC	Dissolved organic carbon
DT50	Dwell Time - 50% reduction of start concentration
DVS	Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
dw	dry weight
e.g.	for example (abbreviation of Latin 'exempli gratia'), for instance
EC	European Community
ECHA	European Chemicals Agency
EEA	European Economic Area
EEC	European Economic Community

(GB)

Page 6 of 6

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EN	European Norms
EPA	United States Environmental Protection Agency (United States of America)
ERC	Environmental Release Categories
ES	Exposure scenario
etc.	et cetera
EU	European Union
EWC	European Waste Catalogue
Fax.	Fax number
gen.	general
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
GWP	Global warming potential
HET-CAM	Hen's Egg Test - Chorionallantoic Membrane
HGWP	Halocarbon Global Warming Potential
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
IBC (Code)	International Bulk Chemical (Code)
IC	Inhibitory concentration
IMDG-code	International Maritime Code for Dangerous Goods
incl.	including, inclusive
IUCLID	International Uniform Chemical Information Database
LC	lethal concentration
LC50	lethal concentration 50 percent kill
LCLo	lowest published lethal concentration
LD	Lethal Dose of a chemical
LD50	Lethal Dose, 50% kill
LDLo	Lethal Dose Low
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest Observed Effect Level
LQ	Limited Quantities
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
n.a.	not applicable
n.av.	not available
n.c.	not checked
n.d.a.	no data available
NIOSH	National Institute of Occupational Safety and Health (United States of America)
NOAEC	No Observed Adverse Effective Concentration
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
ODP	Ozone Depletion Potential
OECD	Organisation for Economic Co-operation and Development
org.	organic
PAH	polycyclic aromatic hydrocarbon
PBT	persistent, bioaccumulative and toxic
PC	Chemical product category
PE	Polyethylene
PNEC	Predicted No Effect Concentration
POCP	Photochemical ozone creation potential
ppm	parts per million
PROC	Process category
PTFE	Polytetrafluoroethylene
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No.	9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID	Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure Activity Relationship
SU	Sector of use
SVHC	Substances of Very High Concern
Tel.	Telephone
ThOD	Theoretical oxygen demand
TOC	Total organic carbon
TRGS	Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG	United Nations Recommendations on the Transport of Dangerous Goods
VbF	Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))
VOC	Volatile organic compounds
vPvB	very persistent and very bioaccumulative
WEL-TWA, WEL-STEL	WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).
WHO	World Health Organization
wwt	wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.

These statements were made by:

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