

# Safety Data Sheet as per regulation (EC) 1907/2006

Commercial Product Name : FCS liquid – Mortar (Component A )

Revision Date : 29.03.2017

Version : 5.2 /en

**fischer**   
innovative solutions

Replaces version from : 26.01.2017

Print date : 09.05.2017

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

### **1.1 Product identifier**

Commercial Product Name           **FCS liquid – Mortar (Component A )**

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

Relevant identified uses           mounting material

Recommended restrictions       None under normal processing. Observe technical data sheet.

### **1.3 Details of the supplier of the safety data sheet**

Company designation           fischerwerke GmbH & Co. KG  
Klaus-Fischer-Straße 1  
D-72178 Waldachtal  
Telephone : +49(0)7443 12-0  
FAX : +49(0)7443 12-4222  
Email : info-sdb@fischer.de  
Internet : www.fischer.de

Marketer                           Great Britain: Mrs Mirka Valovicova, fischer Fixing (UK) Ltd, Hithercroft Road, Wallingford, Oxfordshire, OX10 9AT, Tel. 01491 827 920, Fax 01491 827 950

### **1.4 Emergency telephone number**

Emergency telephone number   +49(0)6132-84463 (24h)

## **SECTION 2: Hazards identification**

### **2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008   Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 3; H412

### **2.2 Label elements**

Hazard pictogram



GHS07

Signal word

Warning

Hazardous component(s) to be indicated on label

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

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H-statement(s)	(epichlorhydrin) Epoxy resin (number average molecular weight <= 700) , 1 , 3-bis(2 , 3-epoxypropoxy)-2 , 2-dimethylpropane H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H412: Harmful to aquatic life with long lasting effects.
P-statement(s)	P280: Wear protective gloves/protective clothing/eye protection/face protection.
Further information	EUH205: Contains epoxy constituents. May produce an allergic reaction.

## 2.3 Other hazards

Health hazard	None known.
Particular information pertaining specific risk for human / environment	None known.
Indication of danger	None known.
Hazard precautions	None known.

## SECTION 3: Composition/information on ingredients

### Hazardous ingredients

Ingredient		Classification (EC) 1272/2008	Concentration
reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)	CAS No. : 25068-38-6 EC-No. : 500-033-5 Index-No. : 603-074-00-8 REACH No. : 01-2119456619-26	Eye Irrit. 2; H319 Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Chronic 2; H411	10.0 – 25.0 % by weight
reaction product: bisphenol-F-(epichlorhydrin) Epoxy resin (number average molecular weight <= 700)	CAS No. : 28064-14-4 REACH No. : 01-2119454392-40	Eye Irrit. 2; H319 Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Chronic 2; H411	2.5 – 10.0 % by weight
1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane	CAS No. : 17557-23-2 EC-No. : 241-536-7 Index-No. : 603-094-00-7	Skin Irrit. 2; H315 Skin Sens. 1; H317	2.5 – 10.0 % by weight

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice	If symptoms persist, call a physician. Take off all contaminated clothing immediately. Remove/Take off immediately all contaminated clothing.
If inhaled	Move to fresh air.

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	If symptoms persist, call a physician.
In case of skin contact	Do not get on skin. Wash off immediately with soap and plenty of water. If skin irritation or rash occurs, seek medical advice/attention.
In case of eye contact	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
If swallowed	If swallowed, seek medical advice immediately and show this container or label. Rinse mouth with water. Drink 1 or 2 glasses of water. Do NOT induce vomiting.

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

Symptoms None known.

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

Immediate medical attention No data available

Special medical treatment No data available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media Dry powder  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Water spray jet

Extinguishing media which must not be used for safety reasons High volume water jet

### 5.2 Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases Hazardous decomposition products formed under fire conditions.  
Sulphur oxides  
nitrogen oxides (NO<sub>x</sub>)  
Carbon oxides

### 5.3 Advice for firefighters

Special protective equipment for firefighting In the event of fire, wear self-contained breathing apparatus.  
In the event of fire and/or explosion do not breathe fumes.

Additional information on firefighting Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions                      Ensure adequate ventilation, especially in confined areas.

### **6.2 Environmental precautions**

Environmental precautions              The product should not be allowed to enter drains, water courses or the soil.

### **6.3 Methods and material for containment and cleaning up**

Methods for cleaning up                  Use mechanical handling equipment.  
Dispose of contents/container in accordance with local regulation.

### **6.4 Reference to other sections**

Reference to other sections              See chapter: 8/13

## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

Advice on safe handling                  None under normal processing.

Precautions                                  Observe label precautions.

Advice on protection against fire and explosion    not required under normal use

### **7.2 Conditions for safe storage, including any incompatibilities**

Storage space and container requirements      Store in original container.  
Keep container tightly closed.  
Store in accordance with local regulations.

Hints on storage assembly                  Do not store near acids.  
Keep away from oxidising agents, strongly acid or alkaline materials, as well as of amines, alcohols and water.

Storage specifications                      Keep container tightly closed in a dry and well-ventilated place.  
Protect from sunlight and store in well-ventilated place.

German storage class                      10-13 (TRGS 510)

### **7.3 Specific end use(s)**

Specific use(s)                                composite mortar  
Further information: see technical data sheet.

## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

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

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## 8.2 Exposure controls

Respiratory protection	No personal respiratory protective equipment normally required. In case of inadequate ventilation wear respiratory protection.
Hand protection	
Suitable material :	butyl-rubber, Fluorinated rubber, Nitrile rubber
Break through time :	> 120 min
Remarks :	Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Protective gloves complying with EN 374.
Reference substance :	Replace when worn.
Eye protection	Safety glasses
Skin and body protection	Wear suitable protective equipment.
General protective and hygiene measures	Avoid contact with the skin and the eyes. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feedingstuffs. Use protective skin cream before handling the product.
Information on environmental protection regulations	No special environmental precautions required.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	viscous liquid
Colour	grey
Odour	characteristic
pH	not determined
Melting point [°C] / Freezing point [°C]	not determined
Boiling point [°C]	not determined
Flash point [°C]	not applicable > 100
Evaporation rate [kg/(s*m <sup>2</sup> )]	No data available
Flammability (solid, gas)	No data available

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## Explosion limits [Vol-% ]

Lower limit : not determined

Upper limit : not determined

Vapour pressure [kPa] No data available

Density [g/cm<sup>3</sup>] 1,7 – 1,9

Temperature : 20 °C

Water solubility [g/l] not determined

Partition coefficient n-octanol / water (log P O/W) not determined

Autoignition temperature [°C] not determined

Decomposition temperature [°C] not determined

Viscosity, dynamic [kg/(m\*s)] 120 – 160

Temperature : 20 °C

Risk of explosion. Not explosive

## 9.2 Other information

Ignition temperature [°C] not determined

Oxidizing properties no

Miscibility with water partly miscible

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Thermal decomposition No decomposition if stored and applied as directed.

### 10.2 Chemical stability

Chemical stability Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to avoid

Conditions to avoid No dangerous reaction known under conditions of normal use.

### 10.5 Incompatible materials

Materials to avoid Strong acids and oxidizing agents

### 10.6 Hazardous decomposition products

Hazardous decomposition products None reasonably foreseeable.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Hazardous ingredients

epoxy resin (number average molecular weight .LE. 700), reaction product: bisphenol-A-(epichlorhydrin)

Oral toxicity [mg/kg]	Test criterion	Test species	Source
30000	LD50	rat	100

Source : 100 – Company data

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
> 2000	LD50	rat	100

Source : 100 – Company data

Inhalative toxicity [mg/l]	Test criterion	Test species	Exposure duration	Source
0,000008	LC0	rat	5 h	100

Source : 100 – Company data

Specific target organ toxicity (single exposure) [mg/kg]	Remarks	Source
	Not applicable.	100

Source : 100 – Company data

Specific target organ toxicity (repeated exposure) [mg/kg]	Remarks	Source
	Not applicable.	100

Source : 100 – Company data

Reaktionsprodukt: Bisphenol-F-Epichlorhydrinharze mit durchschnittlichem Molekulargewicht <= 700

Oral toxicity [mg/kg]	Test criterion	Test species	Source
> 5000	LD50	rat	100

Source : 100 – Company data

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
> 2000	LD50	rat	100

Source : 100 – Company data

Inhalative toxicity [mg/l]	Source
Not applicable.	100

Source : 100 – Company data

Specific target organ toxicity (single exposure) [mg/kg]	Remarks	Source
	Not applicable.	100

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Source : 100 – Company data

Specific target organ toxicity (repeated exposure) [mg/kg]	Remarks	Source
	Not applicable.	100

Source : 100 – Company data

## 1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane

Oral toxicity [mg/kg]	Test criterion	Source
> 2000	LD50	100

Source : 100 – Company data

Dermal toxicity [mg/kg]	Source
no data available	100

Source : 100 – Company data

Inhalative toxicity [mg/l]	Source
no data available	100

Source : 100 – Company data

Specific target organ toxicity (single exposure) [mg/kg]	Remarks	Source
	No data available	100

Source : 100 – Company data

Specific target organ toxicity (repeated exposure) [mg/kg]	Remarks	Source
	No data available	100

Source : 100 – Company data

Irritant effect on skin	Irritating to skin and mucous membranes
Irritant effect on eyes	Risk of serious damage to eyes.
Sensitization	There is no data available for this product.
Carcinogenic effects	No data available
Mutagenicity	There is no data available for this product.
Reproduction toxicity	There is no data available for this product.
Caustic effect	Causes severe skin burns and eye damage.

## 11.2 Additional information

Other information (chapter 11.) There is no data available for this product.

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Hazardous ingredients

epoxy resin (number average molecular weight .LE. 700), reaction product: bisphenol-A-(epichlorhydrin)

Toxicity to fish [mg/l]	Test criterion	Measuring method	Exposure duration	Source
1,3	LC50	OECD Test Guideline 203	96 h	100

Source : 100 – Company data

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Source
1,8	EC50	Daphnia magna (Water flea)	48 h	100

Source : 100 – Company data

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
10	EC50	Chlorella pyrenoidosa	72 h	100

Source : 100 – Company data

NOEC (daphnia) [mg/l]	Test species	Measuring method	Exposure duration	Source
0,3	Daphnia magna (Big water flea).	OECD 211	21 d	100

Source : 100 – Company data

Reaktionsprodukt: Bisphenol-F-Epichlorhydrinharze mit durchschnittlichem Molekulargewicht <= 700

Toxicity to fish [mg/l]	Test criterion	Measuring method	Exposure duration	Source
> 1	LC50	OECD Test Guideline 203	96 h	100

Source : 100 – Company data

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Measuring method	Source
> 1	EC50	Daphnia magna (Water flea)	48 h	OECD Test Guideline 202	100

Source : 100 – Company data

Toxicity to algae [mg/l]	Test criterion	Exposure duration	Source
> 1	EC50	72 h	100

Source : 100 – Company data

NOEC (daphnia) [mg/l]	Test species	Measuring method	Exposure duration	Source
0,3	Daphnia magna (Big water flea).	OECD 211	21 d	100

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Source : 100 – Company data

## 1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane

Toxicity to fish [mg/l]	Source
No data available	100

Source : 100 – Company data

Toxicity to daphnia [mg/l]	Source
No data available	100

Source : 100 – Company data

Toxicity to algae [mg/l]	Source
No data available	100

Source : 100 – Company data

## 12.2 Persistence and degradability

Elimination and distribution mechanisms      There is no data available for this product.

Elimination in purification plant      There is no data available for this product.

Biodegradability      There is no data available for this product.

## 12.3 Bioaccumulative potential

Bioaccumulation      There is no data available for this product.

Bioconcentration factor (BCF)      There is no data available for this product.

## 12.4 Mobility in soil

Distribution in the environment      There is no data available for this product.

Mobility      There is no data available for this product.

## 12.5 Results of PBT and vPvB assessment

Results of PBT characteristics determination      This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

## 12.6 Other adverse effects

Further information on ecology      No information on ecology is available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Disposal considerations      Dispose of as hazardous waste in compliance with local and national regulations.

Waste Code      Product  
080409 – waste adhesives and sealants containing organic solvents or other dangerous substances

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cured material

200000 – MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS

Uncleaned empty packaging

Dispose of as unused product.

Do not flush into surface water or sanitary sewer system.

## SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG	Air transport ICAO/IATA
14.1 UN-No	Not applicable.	Not applicable.	Not applicable.
14.2 Description of the goods	No dangerous good according to ADR	No dangerous good according to IMDG	No dangerous good according to IATA
14.2 UN proper shipping name		Non dangerous good	Non dangerous good
14.3 Transport hazard class(es)	Not applicable.	Not applicable.	Not applicable.
14.4 Packaging group	Not applicable.	Not applicable.	Not applicable.
14.5 Environmental hazards	Not applicable.	Not applicable.	Not applicable.
Danger releasing substance	Not applicable.	Not applicable.	Not applicable.

### 14.6 Special precautions for user

Precautions not required under normal use

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

Transport in bulk according to Annex II of MARPOL and the IBC Code not applicable

### 14.8 Additional information

Other information (chapter 14.) Not dangerous goods in the meaning of ADR/RID, ADNR, IMDG-Code, ICAO/IATA-DGR

## SECTION 15: Regulatory information

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

Restriction of occupation. Do not use for private purposes (household).

Water Hazard Class (Ger.) 2

Classification in compliance with the Industrial Safety Regulation -

### 15.2 Chemical safety assessment

Safety assessment Not relevant. Chemical safety assessments for substances in this mixture were not carried out.

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## SECTION 16: Other information

Relevant H-phrases                      EUH205: Contains epoxy constituents. May produce an allergic reaction.  
    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.

Wording of the hazard classes            Skin Irrit.: Skin irritation  
    Eye Irrit.: Serious eye irritation  
    Skin Sens.: Skin sensitization  
    Aquatic Chronic: Hazardous to the aquatic environment

Classification for mixtures  
and used evaluation method  
according to regulation (EC)  
1272/2008 [CLP]

Classification	Evaluation
Skin Irrit. 2; H315	Calculated
Eye Irrit. 2; H319	Calculated
Skin Sens. 1; H317	Calculated
Aquatic Chronic 3; H412	Calculated

Recommended restrictions                None under normal processing. Observe technical data sheet.

Modifications of the previous version are denoted with an asterisk (\*).

This information is provided in accordance with the current status of our knowledge and experience. The Safety Data Sheet describes products with a view to relevant safety requirements. This information does not constitute a warranty of properties, features or qualities.

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

### 1.1 Product identifier

Commercial Product Name           **FCS liquid – Hardener (Component B )**

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

Relevant identified uses           mounting material

Recommended restrictions       None under normal processing. Observe technical data sheet.

### 1.3 Details of the supplier of the safety data sheet

Company designation           fischerwerke GmbH & Co. KG  
Klaus-Fischer-Straße 1  
D-72178 Waldachtal  
Telephone : +49(0)7443 12-0  
FAX : +49(0)7443 12-4222  
Email : info-sdb@fischer.de  
Internet : www.fischer.de

Marketer                           Great Britain: Mrs Mirka Valovicova, fischer Fixing (UK) Ltd, Hithercroft Road, Wallingford, Oxfordshire, OX10 9AT, Tel. 01491 827 920, Fax 01491 827 950

### 1.4 Emergency telephone number

Emergency telephone number   +49(0)6132-84463 (24h)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008   Acute Tox. 4; H332 Skin Corr. 1B; H314 Skin Sens. 1; H317 Repr. 1B; H360F Aquatic Chronic 3; H412

### 2.2 Label elements

Hazard pictogram



GHS05



GHS07



GHS08

Signal word

Danger

Hazardous component(s) to be indicated on label

m-phenylenebis(methylamine) , Polyoxypropylendiamin , 4 , 4'-isopropylidenediphenol , benzyl alcohol

H-statement(s)

H314: Causes severe skin burns and eye damage.  
H317: May cause an allergic skin reaction.  
H332: Harmful if inhaled.

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P-statement(s)

H360F: May damage fertility.  
H412: Harmful to aquatic life with long lasting effects.

P201: Obtain special instructions before use.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310: Immediately call a POISON CENTER or doctor/physician.

## 2.3 Other hazards

Health hazard None known.

Particular information pertaining specific risk for human / environment None known.

Indication of danger None known.

Hazard precautions None known.

## SECTION 3: Composition/information on ingredients

### Hazardous ingredients

Ingredient		Classification (EC) 1272/2008	SVHC	Concentration
aliphatic polyamine	REACH No. : The substance does not require registration according to Regulation (EC) No 1207/2006 [REACH].	Aquatic Chronic 4; H413		25.0 – 50.0 % by weight
m-phenylenebis(methylamine)	CAS No. : 1477-55-0 EC-No. : 216-032-5 REACH No. : 01-2119480150-50	Acute Tox. 4; H302 Acute Tox. 4; H312 Acute Tox. 4; H332 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Chronic 3; H412		25.0 – 50.0 % by weight
Polyoxypropylendiamin	CAS No. : 9046-10-0 REACH No. : 01-2119557899-12	Skin Corr. 1C; H314 Eye Dam. 1; H318 Aquatic Chronic 2; H411		10.0 – 25.0 % by weight
4,4'-isopropylidenediphenol	CAS No. : 80-05-7 EC-No. : 201-245-8 Index-No. : 604-030-00-0 REACH No. : 01-2119457856-23	Repr. 1B; H360F STOT SE 3; H335 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Chronic 2; H411	✓	10.0 – 25.0 % by weight
benzyl alcohol	CAS No. : 100-51-6 EC-No. : 202-859-9 Index-No. : 603-057-00-5 REACH No. : 01-2119492630-38	Acute Tox. 4; H332 Acute Tox. 4; H302 Eye Irrit. 2; H319		2.5 – 10.0 % by weight

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## **SECTION 4: First aid measures**

### **4.1 Description of first aid measures**

General advice	If symptoms persist, call a physician. Take off all contaminated clothing immediately. Remove/Take off immediately all contaminated clothing.
If inhaled	Move to fresh air. If symptoms persist, call a physician.
In case of skin contact	Do not get on skin. Wash off immediately with soap and plenty of water. If skin irritation or rash occurs, seek medical advice/attention.
In case of eye contact	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
If swallowed	If swallowed, seek medical advice immediately and show this container or label. Rinse mouth with water. Drink 1 or 2 glasses of water. Do NOT induce vomiting.

### **4.2 Most important symptoms and effects, both acute and delayed**

Symptoms	None known.
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### **4.3 Indication of any immediate medical attention and special treatment needed**

Immediate medical attention	No data available
Special medical treatment	No data available

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

Suitable extinguishing media	Dry powder Foam Carbon dioxide (CO <sub>2</sub> ) Water spray jet
Extinguishing media which must not be used for safety reasons	High volume water jet

### **5.2 Special hazards arising from the substance or mixture**

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases	Hazardous decomposition products formed under fire conditions. Sulphur oxides nitrogen oxides (NO <sub>x</sub> ) Carbon oxides
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## 5.3 Advice for firefighters

Special protective equipment for firefighting	In the event of fire, wear self-contained breathing apparatus. In the event of fire and/or explosion do not breathe fumes.
Additional information on fire-fighting	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation, especially in confined areas.
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### 6.2 Environmental precautions

Environmental precautions	The product should not be allowed to enter drains, water courses or the soil.
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### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up	Use mechanical handling equipment. Dispose of contents/container in accordance with local regulation.
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### 6.4 Reference to other sections

Reference to other sections	See chapter: 8/13
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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling	None under normal processing.
Precautions	Observe label precautions.
Advice on protection against fire and explosion	not required under normal use

### 7.2 Conditions for safe storage, including any incompatibilities

Storage space and container requirements	Store in original container. Keep container tightly closed. Store in accordance with local regulations.
Hints on storage assembly	Do not store near acids. Keep away from oxidising agents, strongly acid or alkaline materials, as well as of amines, alcohols and water.
Storage specifications	Keep container tightly closed in a dry and well-ventilated place. Protect from sunlight and store in well-ventilated place.
German storage class	8A (TRGS 510)

### 7.3 Specific end use(s)

Specific use(s)	composite mortar
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Further information: see technical data sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### 4,4'-isopropylidenediphenol

Great Britain

Long-term exposure value/ mg/m <sup>3</sup>	Remarks	Source
10	inhalable dust	19

Source : 19 – EH40/2005 Workplace exposure limits (2011)

Europe

Long-term exposure value/ mg/m <sup>3</sup>	Note	Issuing date	Source
10	inhalable dust	2009/161	24

Source : 24 – DIRECTIVE 2009/161/EU

### 8.2 Exposure controls

Respiratory protection

No personal respiratory protective equipment normally required.  
In case of inadequate ventilation wear respiratory protection.

Hand protection

Suitable material :

butyl-rubber, Fluorinated rubber, Nitrile rubber

Break through time :

> 120 min

Remarks :

Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Protective gloves complying with EN 374.

Reference substance :

Replace when worn.

Eye protection

Safety glasses

Skin and body protection

Wear suitable protective equipment.

General protective and hygiene measures

Avoid contact with the skin and the eyes.  
Smoking, eating and drinking should be prohibited in the application area.  
Wash hands before breaks and immediately after handling the product.  
Keep away from food, drink and animal feedingstuffs.  
Use protective skin cream before handling the product.

Information on environmental protection regulations

No special environmental precautions required.

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## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

Form	viscous liquid
Colour	black
Odour	characteristic
pH	not determined
Melting point [°C] / Freezing point [°C]	not determined
Boiling point [°C]	not determined
Flash point [°C]	not applicable > 100
Evaporation rate [kg/(s*m <sup>2</sup> )]	No data available
Flammability (solid, gas)	No data available
Explosion limits [Vol-% ]	
Lower limit :	not determined
Upper limit :	not determined
Vapour pressure [kPa]	No data available
Density [g/cm <sup>3</sup> ]	1,0 – 1,5
Temperature :	20 °C
Water solubility [g/l]	not determined
Partition coefficient n-octanol / water (log P O/W)	not determined
Autoignition temperature [°C]	not determined
Decomposition temperature [°C]	not determined
Viscosity, dynamic [kg/(m*s)]	0,35 – 0,45
Temperature :	20 °C
Risk of explosion.	Not explosive

### **9.2 Other information**

Ignition temperature [°C]	not determined
Oxidizing properties	no
Miscibility with water	partly miscible

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Thermal decomposition No decomposition if stored and applied as directed.

### 10.2 Chemical stability

Chemical stability Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to avoid

Conditions to avoid No dangerous reaction known under conditions of normal use.

### 10.5 Incompatible materials

Materials to avoid Strong acids and oxidizing agents

### 10.6 Hazardous decomposition products

Hazardous decomposition products None reasonably foreseeable.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Hazardous ingredients

##### Aliphatisches Polyamin

Oral toxicity [mg/kg]	Test criterion	Test species	Source
> 5000	LD50	rat	100

Source : 100 – Company data

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
> 2000	LD50	rabbit	100

Source : 100 – Company data

##### m-phenylenebis(methylamine)

Oral toxicity [mg/kg]	Test criterion	Test species	Source
930	LD50	rat	100

Source : 100 – Company data

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
2000	LD50	rabbit	100

Source : 100 – Company data

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Inhalative toxicity [mg/l]	Test criterion	Test species	Exposure duration	Source
0,8	LC50	rat	4 h	100

Source : 100 – Company data

Irritant effect on the respiratory tract – Inhalation of vapours in high concentration may cause irritation of respiratory system.

Specific target organ toxicity (single exposure) [mg/kg]	Remarks	Source
	No data available	100

Source : 100 – Company data

Specific target organ toxicity (repeated exposure) [mg/kg]	Remarks	Source
	No data available	100

Source : 100 – Company data

## Polyoxypropylendiamin

Oral toxicity [mg/kg]	Test criterion	Test species	Source
2885,3	LD50	rat	100

Source : 100 – Company data

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
2980,7	LD50	rabbit	100

Source : 100 – Company data

Inhalative toxicity [mg/l]	Test criterion	Test species	Exposure duration	Source
> 0,74	LC50	rat	8 h	100

Source : 100 – Company data

Specific target organ toxicity (single exposure) [mg/kg]	Remarks	Source
	No data available	100

Source : 100 – Company data

Specific target organ toxicity (repeated exposure) [mg/kg]	Remarks	Source
	No data available	100

Source : 100 – Company data

## 4,4'-isopropylidenediphenol

Oral toxicity [mg/kg]	Test criterion	Test species	Source
3250	LD50	rat	100

Source : 100 – Company data

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
6400	LD50	rabbit	100

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Source : 100 – Company data

Inhalative toxicity [mg/l]	Test criterion	Test species	Exposure duration	Source
> 170	LC50	rat	6 h	100

Source : 100 – Company data

## benzyl alcohol

Oral toxicity [mg/kg]	Test criterion	Test species	Source
1230	LD50	rat	100

Source : 100 – Company data

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
2000	LD50	rabbit	100

Source : 100 – Company data

Inhalative toxicity [mg/l]	Test criterion	Test species	Note	Exposure duration	Source
> 4,1	LC50	rat	OECD 403	4 h	100

Source : 100 – Company data

Specific target organ toxicity (single exposure) [mg/kg]	Remarks	Source
	No data available	100

Source : 100 – Company data

Specific target organ toxicity (repeated exposure) [mg/kg]	Remarks	Source
	No data available	100

Source : 100 – Company data

Irritant effect on skin	Irritating to skin and mucous membranes
Irritant effect on eyes	Risk of serious damage to eyes.
Sensitization	There is no data available for this product.
Carcinogenic effects	No data available
Mutagenicity	There is no data available for this product.
Reproduction toxicity	There is no data available for this product.
Caustic effect	Causes severe skin burns and eye damage.

## 11.2 Additional information

Other information (chapter 11.) There is no data available for this product.

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Hazardous ingredients

##### Polyoxypropylendiamin

Toxicity to fish [mg/l]	Test criterion	Measuring method	Exposure duration	Source
> 15	EC50	OECD Test Guideline 203	96 h	100
772,14	LC50	OECD Test Guideline 203	96 h	100

Source : 100 – Company data

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Measuring method	Source
418,34	EC50	Daphnia magna (Water flea)	48 h	ISO	100

Source : 100 – Company data

Toxicity to algae [mg/l]	Test criterion	Exposure duration	Measuring method	Source
15	ErC50:	72 h	OECD Test Guideline 201	100
141,72	EbC50	72 h	ISO 10253:2006	100

Source : 100 – Company data

NOEC (daphnia) [mg/l]	Test species	Measuring method	Exposure duration	Source
0,32	Daphnia magna (Big water flea).	OECD 201	72 h	100

Source : 100 – Company data

#### Ready degradability

##### 4,4'-isopropylidenediphenol

Toxicity to fish [mg/l]	Test criterion	Test species	Exposure duration	Source
> 4	LC50	Pimephales promelas (fathead minnow)	96 h	100
9,9	LC50	Brachydanio rerio (zebra fish)	96 h	100
4	LC50	Oncorhynchus mykiss (rainbow trout)	96 h	100

Source : 100 – Company data

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Source
3,9	EC50	Daphnia magna (Water flea)	48 h	100
10,2	EC50	Daphnia magna (Water flea)	48 h	100
> 9,2	EC50	Daphnia magna (Water flea)	48 h	100

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Source : 100 – Company data

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
2,5	EC50	Pseudokirchneriella subcapitata	96 h	100

Source : 100 – Company data

## benzyl alcohol

Toxicity to fish [mg/l]	Test criterion	Test species	Exposure duration	Source
460	LC50	Pimephales promelas (fathead minnow)	96 h	100

Source : 100 – Company data

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Source
230	EC50	Daphnia magna (Water flea)	48 h	100

Source : 100 – Company data

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
700	IC50:	Pseudokirchneriella subcapitata	72 h	100

Source : 100 – Company data

NOEC (daphnia) [mg/l]	Test species	Measuring method	Exposure duration	Source
51	Daphnia magna (Big water flea).	OECD 211	21 d	100

Source : 100 – Company data

## 12.2 Persistence and degradability

Elimination and distribution mechanisms      There is no data available for this product.

Elimination in purification plant      There is no data available for this product.

Biodegradability      There is no data available for this product.

## 12.3 Bioaccumulative potential

Bioaccumulation      There is no data available for this product.

Bioconcentration factor (BCF)      There is no data available for this product.

## 12.4 Mobility in soil

Distribution in the environment      There is no data available for this product.

Mobility      There is no data available for this product.

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## 12.5 Results of PBT and vPvB assessment

Results of PBT characteristics determination      This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

## 12.6 Other adverse effects

Further information on ecology      No information on ecology is available.

## SECTION 13: Disposal considerations




### 13.1 Waste treatment methods

Disposal considerations      Dispose of as hazardous waste in compliance with local and national regulations.

Waste Code      Product  
080409 – waste adhesives and sealants containing organic solvents or other dangerous substances cured material  
200000 – MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS

Uncleaned empty packaging      Dispose of as unused product.  
Do not flush into surface water or sanitary sewer system.

## SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG	Air transport ICAO/IATA
14.1 UN-No	2735	2735	2735
14.2 Description of the goods	AMINES, LIQUID, CORROSIVE, N.O.S.	AMINES, LIQUID, CORROSIVE, N.O.S.	AMINES, LIQUID, CORROSIVE, N.O.S.
14.2 UN proper shipping name		AMINES, LIQUID, CORROSIVE, N.O.S.	Amines, liquid, corrosive, n.o.s.
14.3 Transport hazard class(es)	8	8	8
14.4 Packaging group	II	II	II
Labels	8 	8 	8 
Risk No.	80		
Category	2		
Classification Code	C7		
Tunnel restriction code	E		
Danger releasing substance	m-Phenylbis(methylamin)	m-Phenylbis(methylamin)	m-Phenylbis(methylamin)
EmS		F-A;S-B	
Stowage category		A	

## 14.6 Special precautions for user

Precautions      not required under normal use

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

Transport in bulk according to Annex II of MARPOL and the IBC Code not applicable

## SECTION 15: Regulatory information

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

Restriction of occupation. Do not use for private purposes (household).

Water Hazard Class (Ger.) 2

Classification in compliance with the Industrial Safety Regulation -

### 15.2 Chemical safety assessment

Safety assessment Not relevant. Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

Relevant H-phrases  
H302: Harmful if swallowed.  
H312: Harmful in contact with skin.  
H314: Causes severe skin burns and eye damage.  
H317: May cause an allergic skin reaction.  
H318: Causes serious eye damage.  
H319: Causes serious eye irritation.  
H332: Harmful if inhaled.  
H335: May cause respiratory irritation.  
H360F: May damage fertility.  
H411: Toxic to aquatic life with long lasting effects.  
H412: Harmful to aquatic life with long lasting effects.  
H413: May cause long lasting harmful effects to aquatic life.

Wording of the hazard classes  
Acute Tox.: Acute toxicity  
Skin Corr.: Skin corrosion  
Skin Sens.: Skin sensitization  
Repr.: Reproductive toxicity  
Aquatic Chronic: Hazardous to the aquatic environment  
Eye Dam.: Serious eye damage  
STOT SE: Specific target organ toxicity – single exposure  
Eye Irrit.: Serious eye irritation

Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]

Classification	Evaluation
Acute Tox. 4; H332	Calculated
Skin Corr. 1B; H314	Calculated
Skin Sens. 1; H317	Calculated
Repr. 1B; H360F	Calculated

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Classification	Evaluation
Aquatic Chronic 3; H412	Calculated

Recommended restrictions            None under normal processing. Observe technical data sheet.

Modifications of the previous version are denoted with an asterisk (\*).

This information is provided in accordance with the current status of our knowledge and experience. The Safety Data Sheet describes products with a view to relevant safety requirements. This information does not constitute a warranty of properties, features or qualities.