

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

Commercial Product Name: FIS EM 390/585/1500 S – Component A

(Mortar)

Revision Date: 10.03.2015

Version: 4.0/en

fischer 
innovative solutions

Replaces version from: 20.10.2014

Print date: 10.03.2015

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

1.1 Product identifier

Commercial Product Name **FIS EM 390/585/1500 S – Component A (Mortar)**

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

Relevant identified uses composite mortar

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

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 Dam. 1; H318 Skin Sens. 1; H317 STOT SE 3; H335 Aquatic Chronic 2; H411

Classification according to Directive 67/548/EEC / 1999/45/EEC R43 Xi; R37/38-41 N; R51/53

2.2 Label elements

Hazard pictogram



GHS05



GHS07



GHS09

Signal word

Danger

Hazardous component(s) to be indicated on label

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

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H-statement(s) product: bisphenol-F-(epichlorhydrin) Epoxy resin (number average molecular weight <= 700), trimethylolpropane triglycidyl ether

- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H318: Causes serious eye damage.
- H335: May cause respiratory irritation.
- H411: Toxic to aquatic life with long lasting effects.

P-statement(s) P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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 (EEC) No 67/548	Concentration
		Classification (EC) 1272/2008	
portland cement	CAS No.: 65997-15-1 EC-No.: 266-043-4 REACH No.: The substance does not require registration according to Regulation (EC) No 1207/2006 [REACH].	Xi; R37/38-41 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335	25.0 – 50.0 % by weight
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	Xi; R36/38 R43 N; R51-53 Eye Irrit. 2; H319 Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Chronic 2; H411	25.0 – 50.0 % by weight
reaction product: bisphenol-F-(epichlorhydrin) Epoxy resin (number average molecular weight <= 700)	CAS No.: 28064-14-4 REACH No.: 01-2119454392-40	R43 Xi; R36/38 N; R51/53 Eye Irrit. 2; H319 Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Chronic 2; H411	10.0 – 25.0 % by weight

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Ingredient		Classification (EEC) No 67/548	Concentration
		Classification (EC) 1272/2008	
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	CAS No.: 2530-83-8	Xi; R41	2.5 – 10.0 % by weight
	EC-No.: 219-784-2 REACH No.: 01-2119513212-58	Eye Dam. 1; H318	
trimethylolpropane triglycidyl ether	CAS No.: 30499-70-8	R43 Xi; R36/38 R52/53	2.5 – 10.0 % by weight
	EC-No.: 222-384-0 REACH No.: The substance does not require registration according to Regulation (EC) No 1207/2006 [REACH].	Skin Irrit. 2; H315, Eye Irrit. 2; H319, Skin Sens. 1; H317, Aquatic Chronic 3; H412	

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.

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 (CO2)
Water spray jet

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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_x)
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.

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.

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Storage specifications Keep away from oxidising agents, strongly acid or alkaline materials, as well as of amines, alcohols and water.

TRGS 510 11
Keep container tightly closed in a dry and well-ventilated place.
Protect from sunlight and store in well-ventilated place.

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

portland cement

Great Britain

Long-term exposure value/ mg/m ³	Remarks	Source
10	inhalable dust	100
4	respirable dust	100

Source: 100 - 100

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.

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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	paste
Colour	white
Odour	characteristic
pH	not determined
Melting point [°C] / Freezing point [°C]	not determined
Boiling point [°C]	not determined
Flash point [°C]	> 100
Evaporation rate [kg/(s*m ²)]	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 ³]	1,5 – 1,6 g/cm ³
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
Autoinflammability	not auto-flammable
Decomposition temperature [°C]	not determined
Viscosity, dynamic [kg/(m*s)]	90 – 130 Pas
Temperature:	20 °C
Risk of explosion.	Not explosive

9.2 Other information

Ignition temperature [°C]	not determined
Oxidizing properties	no

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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

portland cement

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

Source: 100 – 100

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

Source: 100 – 100

Inhalative toxicity [mg/l]	Test criterion	Test species	Note	Source
> 5	LC50	rat	Limit Test 5 g/m ³	100

Source: 100 – 100

Specific target organ toxicity (single exposure) [mg/kg]	Specific effects	Source
	Irritating to respiratory system. (dust)	100

Source: 100 – 100

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

Source: 100 - 100

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 - 100

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

Source: 100 - 100

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

Source: 100 - 100

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

Source: 100 - 100

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

Source: 100 - 100

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

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

Source: 100 - 100

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

Source: 100 - 100

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

Source: 100 - 100

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

Source: 100 - 100

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

Source: 100 - 100

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane

Oral toxicity [mg/kg]	Test criterion	Test species	Source
8025	LD50	rat	100

Source: 100 - 100

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
4250	LD50	rabbit	100

Source: 100 - 100

Inhalative toxicity [mg/l]	Test criterion	Test species	Note	Exposure duration	Source
> 5,3	LC50	rat	OECD 403	4 h	100

Source: 100 - 100

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

Source: 100 - 100

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

Source: 100 - 100

Trimethylolpropantriglycidether

Oral toxicity [mg/kg]	Source
No data available	100

Source: 100 - 100

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

Source: 100 - 100

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

Source: 100 - 100

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

Source: 100 - 100

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

Source: 100 - 100

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.

SECTION 12: Ecological information

12.1 Toxicity

Hazardous ingredients

portland cement

Toxicity to fish [mg/l]	Test criterion	Source
> 100	LC50	100

Source: 100 - 100

Toxicity to daphnia [mg/l]	Test criterion	Test species	Source
> 100	LC50	Daphnia magna (Water flea)	100

Source: 100 - 100

Toxicity to algae [mg/l]	Test criterion	Source
> 100	EC50	100

Source: 100 - 100

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 - 100

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

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Source: 100 – 100

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

Source: 100 – 100

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 – 100

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 – 100

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 – 100

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

Source: 100 – 100

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 – 100

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane

Toxicity to fish [mg/l]	Test criterion	Test species	Exposure duration	Source
55	LC50	Cyprinus carpio (Carp)	96 h	100

Source: 100 – 100

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

Source: 100 – 100

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
119	EC50	Anabaena sp.	7 d	100

Source: 100 – 100

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NOEC (daphnia) [mg/l]	Test species	Measuring method	Exposure duration	Source
100	Daphnia magna (Big water flea).	OECD 202	21 d	100

Source: 100 - 100

Trimethylolpropantriglycidether

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

Source: 100 - 100

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

Source: 100 - 100

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

Source: 100 - 100

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

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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	3077	3077	3077
14.2 Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
14.2 UN proper shipping name		ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	Environmentally hazardous substance, solid, n.o.s.
14.3 Transport hazard class(es)	9	9	9
14.4 Packaging group	III	III	III
14.5 Environmental hazards	U – Environmentally hazardous	U – marine pollutant	U – Environmentally hazardous
Remarks	Not dangerous goods in original packaging (Special Provision 375)	Not dangerous goods in original packaging (Special Provision 969)	Not dangerous goods in original packaging (Special Provision A197)

14.6 Special precautions for user

Precautions not required under normal use

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code not applicable

SECTION 15: Regulatory information

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 R-phrases
R36/38: Irritating to eyes and skin.
R37/38: Irritating to respiratory system and skin.
R41: Risk of serious damage to eyes.
R43: May cause sensitisation by skin contact.

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Relevant H-phrases

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
H411: Toxic to aquatic life with long lasting effects.
H412: Harmful to aquatic life with long lasting effects.
EUH205: Contains epoxy constituents. May produce an allergic reaction.

Wording of the hazard classes

Skin Irrit.: Skin irritation
Eye Dam.: Serious eye damage
Skin Sens.: Skin sensitization
STOT SE: Specific target organ toxicity – single exposure
Aquatic Chronic: Hazardous to the aquatic environment
Eye Irrit.: Serious eye irritation

Modifications since last version

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

Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]

Classification	Evaluation
Skin Irrit. 2; H315	Calculated
Eye Dam. 1; H318	Calculated
Skin Sens. 1; H317	Calculated
STOT SE 3; H335	Calculated
Aquatic Chronic 2; H411	Calculated

Recommended restrictions

None under normal processing. Observe technical data sheet.

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Commercial Product Name: **FIS EM 390/585/1500 S – Component B (Curing agent)**

Revision Date: 23.07.2014

Version: 3.4/en

fischer 
innovative solutions

Replaces version from: 10.06.2014

Print date: 10.03.2015

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

1.1 Product identifier

Commercial Product Name **FIS EM 390/585/1500 S – Component B (Curing agent)**

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

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. 2; H361f STOT SE 3; H335 Aquatic Chronic 3; H412

Classification according to Directive 67/548/EEC / 1999/45/EEC Repr.Cat.3; R62 C; R34 Xn; R20/22 R43 Xi; R37 R52/53

2.2 Label elements

Hazard pictogram



GHS05



GHS07



GHS08

Signal word

Danger

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Commercial Product Name: FIS EM 390/585/1500 S – Component B (Curing agent)

Revision Date: 23.07.2014

Version: 3.4/en



Replaces version from: 10.06.2014

Print date: 10.03.2015

Hazardous component(s) to be indicated on label	m-phenylenebis(methylamine), portland cement, 4, 4'-isopropylidenediphenol
H-statement(s)	H314: Causes severe skin burns and eye damage. H317: May cause an allergic skin reaction. H332: Harmful if inhaled. H335: May cause respiratory irritation. H361f: Suspected of damaging fertility. H412: Harmful to aquatic life with long lasting effects.
P-statement(s)	P102: Keep out of reach of children. P280: Wear protective gloves/protective clothing/eye protection/face protection. P281: Use personal protective equipment as required. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313: IF exposed or concerned: Get medical advice/attention. P405: Store locked up.

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 (EEC) No 67/548	Concentration
		Classification (EC) 1272/2008	
m-phenylenebis(methylamine)	CAS No.: 1477-55-0 EC-No.: 216-032-5 REACH No.: 01-2119480150-50	Xn; R20/22 C; R35 R43 R52/53 Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Chronic 3; H412	25.0 – 50.0 % by weight
portland cement	CAS No.: 65997-15-1 EC-No.: 266-043-4	Xi; R37/38-41 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335	25.0 – 50.0 % 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. Cat. 3; R62 Xi; R37-41 R43 R52 Repr. 2; H361f STOT SE 3; H335 Eye Dam. 1; H318 Skin Sens. 1; H317	2.5 – 10.0 % by weight
2,4,6-tris(dimethylaminomethyl)phenol	CAS No.: 90-72-2 EC-No.: 202-013-9 Index-No.: 603-069-00-0 REACH No.: 01-2119560597-27	Xn; R22 Xi; R36/38 Acute Tox. 4 ; H302 Eye Irrit. 2; H319 Skin Irrit. 2; H315	2.5 – 10.0 % by weight

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Ingredient		Classification (EEC) No 67/548	Concentration
		Classification (EC) 1272/2008	
benzyl alcohol	CAS No.: 100-51-6 EC-No.: 202-859-9 Index-No.: 603-057-00-5 REACH No.: 01-2119492630-38	Xn; R20/22	2.5 – 10.0 % by weight
		Acute Tox. 4 ; H332 Acute Tox. 4 ; H302	

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.

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 (CO2) Water spray jet
Extinguishing media which must not be used for safety reasons	High volume water jet

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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 (NOx) 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 firefighting	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.

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Protect from sunlight and store in well-ventilated place.

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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

portland cement

Great Britain

Long-term exposure value/ mg/m ³	Remarks	Source
10	inhalable dust	100
4	respirable dust	100

Source: 100 – 100

4,4'-isopropylidenediphenol

Great Britain

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

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

Europe

Long-term exposure value/ mg/m ³	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

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

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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	paste
Colour	black
Odour	characteristic
pH	not determined
Melting point [°C] / Freezing point [°C]	not determined
Boiling point [°C]	not determined
Flash point [°C]	> 100
Evaporation rate [kg/(s*m ²)]	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 ³]	1,2 – 1,3 g/cm ³
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)]	80 – 120
Temperature:	20 °C

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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.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Hazardous ingredients

m-phenylenebis(methylamine)

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

Source: 100 - 100

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

Source: 100 - 100

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

Source: 100 - 100

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portland cement

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

Source: 100 – 100

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

Source: 100 – 100

Inhalative toxicity [mg/l]	Test criterion	Test species	Note	Source
> 5	LC50	rat	Limit Test 5 g/m ³	100

Source: 100 – 100

4,4'-isopropylidenediphenol

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

Source: 100 – 100

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

Source: 100 – 100

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

Source: 100 – 100

2,4,6-tris(dimethylaminomethyl)phenol

Oral toxicity [mg/kg]	Test criterion	Test species	Source
2169	LD50	rat	100

Source: 100 – 100

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
> 1242	LD50	rabbit	100

Source: 100 – 100

Inhalative toxicity [mg/l]	Test criterion	Test species	Source
> 1673	LC50	rat	100

Source: 100 – 100

benzyl alcohol

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

Source: 100 – 100

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

Source: 100 – 100

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

Source: 100 – 100

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.

SECTION 12: Ecological information

12.1 Toxicity

Hazardous ingredients

m-phenylenebis(methylamine)

Toxicity to fish [mg/l]	Test criterion	Test species	Exposure duration	Source
75	LC50	Leuciscus idus (Golden orfe)	96 h	100

Source: 100 – 100

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Source
15,2	EC50	Daphnia magna (Water flea)	48 h	100

Source: 100 – 100

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
12	EC50	Scenedesmus subspicatus	72 h	100

Source: 100 – 100

portland cement

Toxicity to fish [mg/l]	Test criterion	Source
> 100	LC50	100

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Source: 100 – 100

Toxicity to daphnia [mg/l]	Test criterion	Test species	Source
> 100	LC50	Daphnia magna (Water flea)	100

Source: 100 – 100

Toxicity to algae [mg/l]	Test criterion	Source
> 100	EC50	100

Source: 100 – 100

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 – 100

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

Source: 100 – 100

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

Source: 100 – 100

2,4,6-tris(dimethylaminomethyl)phenol

Toxicity to fish [mg/l]	Test criterion	Test species	Exposure duration	Source
222	LC50	Oncorhynchus mykiss (rainbow trout)	24 h	100
249	LC50	Cyprinus carpio (Carp)	24 h	100

Source: 100 – 100

Toxicity to daphnia [mg/l]	Test criterion	Exposure duration	Source
718	LC50	96 h	100

Source: 100 – 100

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
84	EC50	Scenedesmus subspicatus	72 h	100

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Source: 100 – 100

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 – 100

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

Source: 100 – 100

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
35	EC50	Anabaena variabilis	3 h	100

Source: 100 – 100

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.

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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	3259	3259	3259
14.2 Description of the goods	AMINES, SOLID, CORROSIVE, N.O.S.	AMINES, SOLID, CORROSIVE, N.O.S.	Amines, solid, corrosive, n.o.s.
14.2 UN proper shipping name		AMINES, SOLID, CORROSIVE, N.O.S.	Amines, solid, 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	C8		
Tunnel restriction code	E		
Proper shipping name	m-phenylenebis(methylamine)		
EmS		F-A;S-B	
Stowage category		A	

14.6 Special precautions for user

Precautions not required under normal use

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to not applicable

Annex II of MARPOL73/78 and the IBC Code

SECTION 15: Regulatory information

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 R-phrases

R20/22: Harmful by inhalation and if swallowed.

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Relevant H-phrases

R22: Harmful if swallowed.
R34: Causes burns.
R35: Causes severe burns.
R36/38: Irritating to eyes and skin.
R37: Irritating to respiratory system.
R37/38: Irritating to respiratory system and skin.
R41: Risk of serious damage to eyes.
R43: May cause sensitisation by skin contact.
R52: Harmful to aquatic organisms.
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62: Possible risk of impaired fertility.

Relevant H-phrases

H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H315: Causes skin irritation.
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.
H361f: Suspected of damaging fertility.
H412: Harmful to aquatic life with long lasting effects.

Wording of the hazard classes

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

Modifications since last version

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

Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]

Classification	Evaluation
Acute Tox. 4; H332	Calculated
Skin Corr. 1B; H314	Calculated
Skin Sens. 1; H317	Calculated
Repr. 2; H361f	Calculated
STOT SE 3; H335	Calculated
Aquatic Chronic 3; H412	Calculated

Recommended restrictions

None under normal processing. Observe technical data sheet.