

GHS Safety Data Sheet

Commercial Product Name: FIS EM Plus 390/585/1500 S –
Component A (Mortar)
Revision Date: 04.12.2018
Version: 1.0 /en



Replaces version from: -
Print date: 04.12.2018

SECTION1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Commercial Product Name FIS EM Plus 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
Internet: www.fischer.de

Marketer

BLACKS FASTENERS LTD
34 Nga Mahi Road, Sockburn
Christchurch 8042 (postal code) New Zealand
Telephone: 0800 652 463
FAX: 0800 652 464
Email: sockburn@blacksfasteners.co.nz

1.4 Emergency telephone number

Emergency telephone number +49(0)6132-84463 (24h)
Our 24-hour contact within NZ is 0800 764 766 (0800 POISON)

SECTION2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 Skin Corr. 1C; H314 Skin Sens. 1; H317 Repr. 1B; H360F STOT SE 3; H335 Aquatic Chronic 2; H411

2.2 Label elements

Hazard pictogram



GHS05



GHS07



GHS08



GHS09

Signal word

Danger

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Hazardous component(s) to be indicated on label reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700), Portlandzement, reaction product: bisphenol-F-(epichlorhydrin) Epoxy resin (number average molecular weight <= 700), trimethylolpropane triglycidyl ether, [3-(2, 3-epoxypropoxy)propyl]trimethoxysilane

H-statement(s) H314: Causes severe skin burns and eye damage.
H317: May cause an allergic skin reaction.
H335: May cause respiratory irritation.
H360F: May damage fertility.
H411: Toxic to aquatic life with long lasting effects.

P-statement(s) 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.

Further information 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.

SECTION3:Composition/informationoningredients

Hazardous ingredients

Ingredient		GHS Classification	Concentration
reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)	CAS No.: 25068-38-6 EC-No.: 500-033-5	Eye Irrit. 2; H319 Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Chronic 2; H411	25.0 - 50.0 % by weight
portlandcement	CAS No.: 65997-15-1 EC-No.: 266-043-4	Skin Irrit. 2;H315 Eye Dam. 1; H318 STOT SE 3;H335	25.0 - 50.0 % by weight

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Ingredient		GHS Classification	Concentration
reaction product: bisphenol-F-(epichlorhydrin) Epoxy resin (number average molecular weight <= 700)	CAS No.: 28064-14-4	Eye Irrit. 2; H319 Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Chronic 2; H411	10.0 – 25.0 % by weight
trimethylolpropane triglycidyl ether	CAS No.: 30499-70-8	Skin Corr. 1C; H314 Skin Sens. 1; H317 Eye Dam. 1; H318 Repr. 1B; H360F Aquatic Chronic 2; H411	2.5 – 10.0 % by weight
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	CAS No.: 2530-83-8	Eye Dam. 1; H318	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. 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
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Extinguishing media which must not be used for safety reasons

Carbon dioxide (CO₂)
Water spray jet

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 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.

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.

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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.

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.

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	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
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
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

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

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

Source: 100 - Company data

portlandcement

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

Source: 100 - Company data

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

Source: 100 - Company data

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

Source: 100 - Company data

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

Source: 100 - Company data

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

Source: 100 - Company data

reaction product: bisphenol-F-(epichlorhydrin) Epoxy resin (number average molecular weight <= 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

Source: 100 - Company data

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

Source: 100 - Company data

Trimethylolpropantriglycidether

Oral toxicity [mg/kg]	Source
no data available	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

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

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

Source: 100 - Company data

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

Source: 100 - Company data

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

Source: 100 - Company data

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

Source: 100 - Company data

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

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

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portlandcement

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

Source: 100 - Company data

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

Source: 100 - Company data

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

Source: 100 - Company data

reaction product: bisphenol-F-(epichlorhydrin) Epoxy resin (number average molecular weight <= 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

Source: 100 - Company data

Trimethylolpropantriglycidether

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

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[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 - Company data

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

Source: 100 - Company data

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

Source: 100 - Company data

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

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.

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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	1759	1759	1759
14.2 Description of the goods	CORROSIVE SOLID, N.O.S.	CORROSIVE SOLID, N.O.S.	Ätzender Feststoff, n.a.g.
14.2 UN proper shipping name		CORROSIVE SOLID, N.O.S.	Corrosive solid, n.o.s.
14.3 Transport hazard class(es)	8	8	8
14.4 Packaging group	III	III	III
14.5 Environmental hazards	U – Environmentally hazardous	U – marine pollutant	U – Environmentally hazardous
Labels	8 	8 	8 
Risk No.	80		
Category	3		
Classification Code	C10		
Tunnel restriction code	E		
Danger releasing substance	trimethylolpropane triglycidyl ether	trimethylolpropane triglycidyl ether	trimethylolpropane triglycidyl ether
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 MARPOL and the IBC Code

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

Code

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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).

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 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.
H335: May cause respiratory irritation.
H360F: May damage fertility.
H411: Toxic to aquatic life with long lasting effects.

Wording of the hazard classes 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
Eye Irrit.: Serious eye irritation
Skin Irrit.: Skin irritation
Eye Dam.: Serious eye damage

GHS Classification

Classification	Evaluation
Skin Corr. 1C; H314	Calculated
Skin Sens. 1; H317	Calculated
Repr. 1B; H360F	Calculated
STOT SE 3; H335	Calculated
Aquatic Chronic 2; H411	Calculated

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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.