GHS Safety Data Sheet Commercial Product Name: FIS EN	A Plus 390/585/1500 S – fischer existing solutions
Component B (Curing agent) Revision Date: 04.12.2018	Replaces version from: -
Version: 1.0 /en	Print date: 04.12.201 esubstance/mixtureandofthecompany/
undertaking	
1.1 Product identifier	
Commercial Product Name	FIS EM Plus 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	ne 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 num	
Emergency telephone number	+49(0)6132-84463 (24h)
	Our 24-hour contact within NZ is 0800 764 766 (0800 POISON)
SECTION2:Hazardsidentifica	tion
2.1 Classification of the substa	nce or mixture
Classification according to Reg-	Acute Tox. 4; H332 Skin Corr. 1B; H314 Skin Sens. 1; H317 Repr. 1B;
ulation (EC) No. 1272/2008	H360F STOT SE 3; H335 Aquatic Chronic 3; H412
2.2 Label elements	
Hazard pictogram	
. 2	
Circulture	GHS05 GHS07 GHS08
Signal word	Danger
Hazardous component(s) to be indicated on label	m-phenylenebis(methylamine), Portlandzement, 2, 4, 6- tris(dimethylaminomethyl)phenol, benzyl alcohol, bisphenol A; 4, 4'- isopropylidenediphenol
H-statement(s)	H314: Causes severe skin burns and eye damage. H317: May cause an allergic skin reaction.

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	H332: Harmful if inhaled. H335: May cause respiratory irritation. H360F: May damage fertility. H412: Harmful 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.
2.3 Other hazards	
Health hazard	None known.
Particular information pertain- ing specific risk for human / en- vironment	None known.
Indication of danger	None known.
Hazard precautions	None known.

SECTION3:Composition/informationoningredients

Hazardous ingredients

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Ingredient		Classification	Concen- tration
m- phenylenebis(methylamine)	CAS No.: 1477-55-0	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
Portlandzement	CAS No.: 65997-15-1	Skin Irrit. 2;H315 Eye Dam. 1; H318 STOT SE 3;H335	25.0 – 50.0 % by weight
aliphatic polyamine	-	Aquatic Chronic 4; H413	10.0 – 25.0 % by weight
2,4,6- tris(dimethylaminomethyl)ph enol	CAS No.: 90-72-2)	Acute Tox. 4; H302 Eye Irrit. 2; H319 Skin Irrit. 2; H315 Skin Sens. 1; H317	2.5 – 10.0 % by weight
benzyl alcohol	CAS No.: 100-51-6	Acute Tox. 4; H332 Acute Tox. 4; H302 Eye Irrit. 2; H319	2.5 – 10.0 % by weight



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Ingredient		GHS Classification	Concen- tration
4,4'-iso-	CAS No.: 80-05-7		2.5 -
	CAS NO.: 80-03-7	Repr. 1B; H360F STOT SE 3;	
propylidenediphenol		H335 Eye Dam. 1; H318 Skin	10.0 % by weight
		Sens. 1; H317 Aquatic Chronic 2;	
		H411	

SECTION4: Firstaidmeasures

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 contain- er or label. Rinse mouth with water. Drink 1 or 2 glasses of water. Do NOT induce vomiting.
4.2 Most important symptoms a	and effects, both acute and delayed
Symptoms	None known.
4.3 Indication of any immediate Immediate medical attention	e medical attention and special treatment needed No data available
Special medical treatment	No data available
SECTION5:Firefightingmeasu	<u>res</u>
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 fron	n the substance or mixture
Special exposure hazards arising	Hazardous decomposition products formed under fire conditions.
from the substance or prepara-	Sulphur oxides
tion itself, its combustion prod-	nitrogen oxides (NOx)
ucts, or released gases	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.
SECTION6:Accidentalreleasen	neasures
6.1 Personal precautions, prote	ctive 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 co	ontainment 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
SECTION7:Handlingandstorag	<u>je</u>
7.1 Precautions for safe handlir	Ig
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 re-	Store in original container.
quirements	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.

7.3 Specific end use(s)

Specific use(s)

composite mortar Further information: see technical data sheet.

SECTION8:Exposurecontrols/personalprotection

8.1 Control parameters

m-phenylenebis(methylamine)

Australia

Maximum admissible concentration /mg/m3	Note	Source
0.1	Sk	39

Source: 39 - WORKPLACE EXPOSURE STANDARDS FOR AIRBORNE CONTAMINANTS 18.April 2013

4,4'-isopropylidenediphenol

Europe

Long-term exposure value/ mg/m3	Remarks	Issuing date	Source
2	Einatembare Fraktion	2017/164	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 per- meability and break through times, and of special workplace condi- tions (mechanical strain, duration of contact). Protective gloves com- plying 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 prod- uct.



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	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.
SECTION9: Physical and chemic	<u>calproperties</u>
9.1 Information on basic physic	al and chemical properties
Form	paste
Colour	black
Odour	characteristic
рН	not determined
Melting point [°C] / Freezing point [°C]	not determined
Boiling point [°C]	not determined
Flash point [°C]	> 100
Evaporation rate [kg/(s*m²)]	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/cm³]	1,2 - 1,3
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
Risk of explosion.	Not explosive
9.2 Other information	
Ignition temperature [°C]	not determined
Oxidizing properties	no



Miscibility with water	partly miscible
SECTION10:Stabilityandreact	ivity
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 re Hazardous reactions	eactions 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 Hazardous decomposition prod- ucts	·

SECTION11: Toxicologicalinformation

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 - Company data

rabbit	100
	rabbit

Source: 100 - Company data

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 respi-
ratory tractInhalation of vapours in high concentration may cause
irritation of respiratory system.

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



Source: 100 - Company data

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

Source: 100 - Company data

Portlandzement

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

Source: 100 - Company data

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

Source: 100 - Company data

Inhalative toxicity	Test criterion	Test species	Note	Source
[mg/l]				
> 5	LC50	rat	Limit Test 5 g/m³	100

Source: 100 - Company data

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

Source: 100 - Company data

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

Source: 100 - Company data

Aliphatic Polyamine

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

Source: 100 - Company data

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

2,4,6-tris(dimethylaminomethyl)phenol

Oral toxicity [mg/kg]	Test criterion	Test species	Source
2169	LD50	rat	100
a 100 G L.			

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



Source: 100 - Company data

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

Source: 100 - Company data

Specific target organ toxicity (single exposure) [mg/kg]	Specific effects	Organs affected	Source
		Eyes, Skin contact, Central ner- vous system	100

Source: 100 - Company data

Specific target organ toxicity (repeated expo- sure) [mg/kg]	Remarks	Source
	No data available	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
Courses 100 Commons data			

Source: 100 - Company data

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

Source: 100 - Company data

	Remarks	Source
sure) [mg/kg]		
	No data available	100

Source: 100 - Company data

Specific target organ toxicity (repeated expo- sure) [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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Inhalative toxicity [mg/l]	Test criterion	Test species	Exposure duration	Source
> 170	LC50	rat	6 h	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.

SECTION12:Ecologicalinformation

12.1 Toxicity

Hazardous ingredients

Portlandzement

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		·	

Source: 100 - Company data

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

Source: 100 - Company data

2,4,6-tris(dimethylaminomethyl)phenol

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

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



Print date: 04.12.2018

Source: 100 - Company data

Toxicity to algae [mg/]	Test criterion	Test species	Exposure duration	Source
84	EC50	Scenedesmus subspica- tus	72 h	100

Source: 100 - Company data

benzyl alcohol

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

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/]	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	OECD 211	21 d	100
	water flea)			

Source: 100 - Company data

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 (ze- bra 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



Toxicity to algae [mg/]	Test criterion	Test species	Exposure duration	Source	
2,5	EC50	Pseudokirchneriella subcapitata	96 h	100	
Source: 100 - Company data			- i	i	
12.2 Persistence and degra	adability				
Elimination and distribution mechanisms	There is no da	ta available for this pro	duct.		
Elimination in purification pla	ant There is no da	There is no data available for this product.			
Biodegradability	There is no da	There is no data available for this product.			
12.3 Bioaccumulative pote	ntial				
Bioaccumulation	There is no da	There is no data available for this product.			
Bioconcentration factor (BCF)	There is no da	There is no data available for this product.			
12.4 Mobility in soil					
Distribution in the environme	ent There is no da	There is no data available for this product.			
Mobility	There is no da	There is no data available for this product.			
12.5 Results of PBT and vP	vB 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 ecolo	gy No informatio	No information on ecology is available.			
SECTION13:Disposalcon	<u>siderations</u>				
13.1 Waste treatment met	hods				
Disposal considerations	Dispose of as regulations.	Dispose of as hazardous waste in compliance with local and national regulations.			
Waste Code	or other dange cured materia 200000 - MUI COMMERCIAL,	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.			



SECTION14: Transportinformation

	Land transport ADR/RID	Marine transport IMDG	Air transport ICAO/IATA
14.1 UN-No	3259	3259	3259
14.2 Description of the	AMINES, SOLID, CORRO-	AMINES, SOLID, CORRO-	Amines, solid, corrosive,
goods	SIVE, N.O.S.	SIVE, N.O.S.	n.o.s.
14.2 UN proper shipping		AMINES, SOLID, CORRO-	Amines, solid, corrosive,
name		SIVE, N.O.S.	n.o.s.
14.3 Transport hazard	8	8	8
class(es)			
14.4 Packaging group	11	П	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 MARPOL and the IBC Code

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

SECTION15:Regulatoryinformation

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.



SECTION16:Otherinformation

Relevant H-phrases	 H302: Harmful if swallowed. H312: Harmful in contact with skin. 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. 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 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	
Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]	Classification Acute Tox. 4; H332 Skin Corr. 1B; H314 Skin Sens. 1; H317 Repr. 1B; H360F	Evaluation Calculated Calculated Calculated Calculated

Recommended restrictions

None under normal processing. Observe technical data sheet.

Calculated

Calculated

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

STOT SE 3; H335

Aquatic Chronic 3; H412

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.