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

1.1 Product identifier

Commercial Product Name	**FIS VS (LOW SPEED) 100 P**

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	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

2.2 Label elements

Hazard pictogram

GHS05

GHS07

Signal word	Danger
Hazardous component(s) to be indicated on label	Portlandzement, tetramethylendimethacrylat, 2-hydroxypropyl methacrylate, dibenzoyl peroxide
H-statement(s)	H315: Causes skin irritation. H317: May cause an allergic skin reaction.

	H318: Causes serious eye damage.
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. 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	Concentration
Portlandzement	CAS No.: 65997-15-1 EC-No.: 266-043-4 REACH No.: The substance does not require registration according to Regulation (EC) No 1907/2006 [REACH].	Skin Irrit. 2;H315 Eye Dam. 1; H318 STOT SE 3;H335	10.0 - 25.0 % by weight
tetramethylendimethacrylat	CAS No.: 2082-81-7 EC-No.: 218-218-1 REACH No.: 01-2119967415-30	Skin Sens. 1; H317	10.0 - 25.0 % by weight
2-hydroxypropyl methacrylate	CAS No.: 27813-02-1 EC-No.: 248-666-3 REACH No.: 01-2119490226-37	Skin Sens. 1; H317 Eye Irrit. 2; H319	2.5 - 10.0 % by weight
ethanediol, ethylene glycol	CAS No.: 107-21-1 EC-No.: 203-473-3 Index-No.: 603-027-00-1 REACH No.: 01-2119456816-28	Acute Tox. 4; H302 STOT RE 2; H373	< 2.5 % by weight
dibenzoyl peroxide	CAS No.: 94-36-0 EC-No.: 202-327-6 Index-No.: 617-008-00-0 REACH No.: 01-2119511472-50	Org. Perox. B; H241 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Acute 1; H400	< 2.5 % by weight

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	IF exposed or concerned: Get medical advice/attention. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Take off immediately all contaminated clothing.
If inhaled	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
In case of skin contact	IF ON SKIN: Gently wash with plenty of soap and water.
In case of eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If swallowed	If swallowed, seek medical advice immediately and show this container or label. If swallowed, rinse mouth with water (only if the person is conscious). Let water be drunken in little sips (dilution effect). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	No known symptoms to date.

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	Carbon dioxide (CO2) Extinguishing powder Foam Water spray jet
Extinguishing media which must not be used for safety reasons	Full 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	Thermal decomposition can lead to the escape of irritating gases and vapours.

5.3 Advice for firefighters

Special protective equipment for firefighting	In case of fire: Wear self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.
Additional information on fire-fighting	Do not allow water used to extinguish fire to enter drains, ground or waterways. Cool closed containers that are near the source of the fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Provide for good room ventilation. Remove persons to safety.

6.2 Environmental precautions

Environmental precautions	Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

6.4 Reference to other sections

Reference to other sections	See section 8. Disposal: see section 13

6.5 Additional information

Other information	Dispose of waste according to applicable legislation.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	No hazardous reaction when handled and stored according to provisions. Caution: During machining in cured state dust is formed.
Advice on protection against fire and explosion	No special measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Storage space and container requirements	Keep container tightly closed and in a well-ventilated place. Store in accordance with local regulations. Keep only in the original container.
Hints on storage assembly	To follow: National regulations
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

Portlandzement

Great Britain

Long-term exposure value/ mg/m3	Remarks	Source
10	inhalable dust	100
4	respirable dust	100

Source: 100 - Company data

ethanediol, ethylene glycol

Great Britain

Long-term exposure value/ ppm	Long-term exposure value/ mg/m3	Short-term exposure value / ppm	Short-term exposure value / mg/m3	Remarks	Source
	10			particulate; Can be absorbed through the skin.	19
20	52	40	104	vapour; Can be absorbed through the skin.	19

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

Europe

Long-term exposure value/ mg/m3	Long-term exposure value/ ppm	Short-term exposure value / mg/m3	Short-term exposure value / ppm	Note	Issuing date	Source
52	20	104	40	Skin	2000/39	24

Source: 24 - DIRECTIVE 2009/161/EU

dibenzoyl peroxide

Great Britain

Long-term exposure value/ mg/m3	Remarks	Source
5	R2, 36, 43	100

Source: 100 - Company data

8.2 Exposure controls

Respiratory protection: Usually no personal respirative protection necessary.

Hand protection: not required under normal use

Suitable material: Butyl caoutchouc (butyl rubber), CR (polychloroprene, chloroprene rubber), NBR (Nitrile rubber)

Unsuitable material:	PVC or rubber gloves are not recommended.
Material thickness:	adjust to application and duration of use
Break through time:	adjust to application and duration of use
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).
Reference substance:	Replace when worn.
Eye protection	Wear closely fitting protective glasses in case of splashes.
Skin and body protection	Wear suitable protective equipment.
Note:	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
General protective and hygiene measures	When using do not eat, drink or smoke. Avoid contact with eyes and skin. Take off immediately all contaminated clothing. Wash hands and face before breaks and after work and take a shower if necessary. Keep away from food, drink and animal feedingstuffs. Use protective skin cream before handling the product.
Information on environmental protection regulations	No special environmental measures are necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	Paste
Colour	grey
Odour	characteristic
Odour threshold	not determined
Melting point [°C] / Freezing point [°C]	No data available
Boiling point [°C]	No data available
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
Vapour density	No data available
Density [g/cm³]	1,7 - 1,9
Temperature:	23 °C
Relative density	No data available
Solubility	No data available
Water solubility [g/l]	not determined
Solubility [g/l]	No data available
Partition coefficient n-octanol / water (log P O/W)	No data available
Autoinflammability	not relevant
Decomposition temperature [°C]	not determined
Viscosity, dynamic [kg/(m*s)]	90 - 150
Temperature:	23 °C
Explosive properties	not relevant
Risk of explosion.	not relevant
Oxidising properties	No

9.2 Other information

Relative vapour density (air=1)	not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

Thermal decomposition	No hazardous reaction when handled and stored according to provisions.

10.2 Chemical stability

Chemical stability	Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3 Possibility of hazardous reactions

Hazardous reactions	No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

Conditions to avoid	The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.5 Incompatible materials

Materials to avoid	Not applicable.

10.6 Hazardous decomposition products

Hazardous decomposition products	No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Hazardous ingredients

Portlandzement

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/m³	100

Source: 100 - Company data

Irritant effect on skin	Irritant
Irritant effect on eyes	Irritant
Sensitization	May cause an allergic skin reaction.
Carcinogenic effects	Not applicable.
Mutagenicity	Not applicable.
Reproduction toxicity	Not applicable.
Caustic effect	No data available

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

Tetramethylen dimethacrylate

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

Source: 100 - Company data

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
> 3000	LD50	rabbit	100

Source: 100 - Company data

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

Source: 100 - Company data

Irritant effect on skin	slightly irritant but not relevant for classification.
Irritant effect on eyes	slightly irritant but not relevant for classification.
Sensitization	Skin sensitizer
Carcinogenic effects	Contains no ingredient listed as a carcinogen
Mutagenicity	Not applicable.
Reproduction toxicity	Not applicable.
Caustic effect	Not applicable.

Specific target organ toxicity (single exposure) [mg/kg]	Specific effects	Source
	none	100

Source: 100 - Company data

Specific target organ toxicity (repeated exposure) [mg/kg]	Specific effects	Source
	none	100

Source: 100 - Company data

2-hydroxypropyl methacrylate

Oral toxicity [mg/kg]	Test criterion	Test species	Remarks	Source
> 2000	LD50	rat	OECD 401 Limit Test.	100

Source: 100 - Company data

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
> 5000	LD50	rabbit	100

Source: 100 - Company data

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

Source: 100 - Company data

Irritant effect on skin	No skin irritation

Measuring method	OECD Test Guideline 404
Irritant effect on eyes	irritating
Measuring method	OECD 405
Sensitization	Skin sensitizer
Carcinogenic effects	Not applicable.
Mutagenicity	Not applicable.
Remarks	OECD 471 (Ames Test) / OECD 476.
Reproduction toxicity	Not applicable.
Remarks	OECD 422
Caustic effect	Not applicable.

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

ethanediol, ethylene glycol

Oral toxicity [mg/kg]	Test criterion	Test species	Source
5840	LD50	rat	100

Source: 100 - Company data

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
> 3500	LD50	rabbit	100

Source: 100 - Company data

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

Source: 100 - Company data

Irritant effect on skin	No skin irritation
Irritant effect on eyes	No eye irritation
Sensitization	not sensitising.
Carcinogenic effects	Contains no ingredient listed as a carcinogen
Mutagenicity	Not applicable.
Reproduction toxicity	Not applicable.
Caustic effect	No data available

Specific target organ toxicity (repeated exposure) [mg/kg]	Route of exposure	Organs affected	Specific effects	Source
	Ingestion	Causes damage to kidneys if swallowed.	Causes damage to organs through prolonged or repeated exposure.	100
	Skin contact	May cause damage to kidneys in contact with skin.	Causes damage to organs through prolonged or repeated exposure.	100

Source: 100 - Company data

dibenzoyl peroxide

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

Source: 100 - Company data

Inhalative toxicity [mg/l]	Test criterion	Test species	Note	Source
24300	LC50	rat	(dust)	100

Source: 100 - Company data

11.2 Additional information

Other information (chapter 11.) The product has not been tested.

SECTION 12: Ecological information

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

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

Source: 100 - Company data

Biodegradability Not applicable. (inorganic)

Tetramethylen dimethacrylate

Toxicity to fish [mg/l]	Test criterion	Measuring method	Exposure duration	Source
32,5	LC50	DIN 38412	48 h	100

Source: 100 - Company data

Toxicity to algae [mg/l]	Test criterion	Test species	Measuring method	Source
9,79	EC50	Scenedesmus capricornutum (fresh water algae)	OECD Test Guideline 201	100

Source: 100 - Company data

NOEC (daphnia) [mg/l]	Test species	Measuring method	Source
7,51	Daphnia magna (Big water flea)	OECD 211	100

Source: 100 - Company data

Biodegradability Readily biodegradable.

Ready degradability

2-hydroxypropyl methacrylate

Toxicity to fish [mg/l]	Test criterion	Test species	Measuring method	Exposure duration	Source
493	LC50	Leuciscus idus (Golden orfe)	DIN 38412	48 h	100

Source: 100 - Company data

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Measuring method	Source
> 130	EC50	Daphnia magna (Water flea)	48 h	OECD Test Guideline 202	100

Source: 100 - Company data

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Measuring method	Source
> 97,2	EC50	Selenastrum capricornutum	72 h	OECD Test Guideline 201	100

Source: 100 - Company data

NOEC (daphnia) [mg/l]	Test criterion	Test species	Measuring method	Exposure duration	Source
24,1	NOEC	Daphnia magna (Big water flea)	OECD 202	21 d	100

Source: 100 - Company data

Biodegradability Readily biodegradable.

Ready degradability

ethanediol, ethylene glycol

Toxicity to fish [mg/l]	Test criterion	Test species	Exposure duration	Source
72860	LC50	Pimephales promelas (fathead minnow)	96 h	100

Source: 100 - Company data

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

Source: 100 - Company data

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
> 6500	EC50	Selenastrum capricor-nutum	96 h	100

Source: 100 - Company data

NOEC (fish) [mg/l]	Test criterion	Test species	Exposure duration	Source
15380	NOEC	Pimephales promelas (fathead minnow)	7 d	100

Source: 100 - Company data

NOEC (daphnia) [mg/l]	Test criterion	Exposure duration	Source
8590	NOEC	7 d	100

Source: 100 - Company data

Biodegradability 90 - 100 %

Ready degradability

dibenzoyl peroxide

Toxicity to fish [mg/l]	Test criterion	Exposure duration	Source
0,06	LC50	96 h	100

Source: 100 - Company data

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Source
0,11	EC50	Daphnia magna (Water flea)	48 h	100

Source: 100 - Company data

Toxicity to algae [mg/l]	Test criterion	Exposure duration	Source
0,06	EC50	72 h	100

Source: 100 - Company data

Ready degradability

12.2 Persistence and degradability

Elimination and distribution mechanisms	The product has not been tested.
Elimination in purification plant	The product has not been tested.

12.3 Bioaccumulative potential

Bioaccumulation	The product has not been tested.
Bioconcentration factor (BCF)	The product has not been tested.

12.4 Mobility in soil

Distribution in the environment	No data available
Mobility	
Mobility:	No data available

12.5 Results of PBT and vPvB assessment

Results of PBT characteristics determination	This mixture does not contain any substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC or Regulation (EC) No. 1272/2008, assigned a Community workplace exposure limit, classified as PBT/vPvB or included in the Candidate List.

12.6 Other adverse effects

Further information on ecology	There are no data available on the mixture itself.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal considerations	Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Empty remaining contents.
Waste Code	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. The following Waste Codes are only suggestions: Product (Mortar and Curing agent) 200127 - paint, inks, adhesives and resins containing dangerous substances 080409 - waste adhesives and sealants containing organic solvents or other dangerous substances cured material and completely squeezed cartridges 200000 - MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS

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	No special measures are necessary.

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.)	No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

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

Decopaint regulation	not relevant
Carcinogenic hazardous substance as per Annex II GefStoffV	No
Restriction of occupation.	not relevant
Water Hazard Class (Ger.)	1
Cassification in compliance with the Industrial Safety Regulation	not relevant

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	H241: Heating may cause a fire or explosion.

H302: Harmful if swallowed.
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.
H373: May cause damage to organs through prolonged or repeated exposure .
H400: Very toxic to aquatic life.

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
Eye Irrit.: Serious eye irritation
Acute Tox.: Acute toxicity
STOT RE: Specific target organ toxicity – repeated exposure
Org. Perox.: Organic peroxide
Aquatic Acute: 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 Dam. 1; H318	Calculated
Skin Sens. 1; H317	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.