

SECTION 1: Identification of t	he substance/mixture and of the company/undertaking
1.1 Product identifier	
Commercial Product Name	FS10 – 904 SD EFFEKTBINDEMITTEL FOLCO AQUASCREEN FS 10
1.2 Relevant identified uses of the s	ubstance or mixture and uses advised against
*Relevant identified uses	printing ink
1.3 Details of the supplier of the saf	ety data sheet
Address	Follmann GmbH & Co. KG Postfach 12 63 D-32372 Minden Telephone : +49 (571) 93 39 -0 FAX : +49 (571) 93 39 -300
Responsible Department	Environmental Department +49 (571) 9339-176
E-mail (competent person)	sicherheitsdatenblatt@follmann.de
1.4 Emergency telephone number	
Emergency telephone number	Outside USA: -001 703 527 3887 (D813)
SECTION 2: Hazards identifica	<u>ition</u>
2.1 Classification of the substance o	or mixture
Classification according to Regula- tion (EC) No. 1272/2008	This product is classified as not hazardous according to regulation (EC) 1272/2008 [CLP].
2.2 Label elements	
Labelling according to Regulation (EC) No. 1272/2008 [CLP]	The product does not have to be labelled according to Regulation (EC) No. 1272/2008 [CLP].
*Further information	EUH208: Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol; 1,2- benzisothiazol-3(2H)-one; 2-Methyl-2H-isothiazol-3-on. May produce an allergic reaction.
	EUH210: Safety data sheet available on request.

SECTION 3: Composition/information on ingredients

3.2 Mixture

Chemical characterization

Acrylat

Hazardous ingredients

Ingredient		Classification (EC) 1272/2008	Concentration
2,4,7,9-Tetram- ethyldec-5-in-4,7-diol	CAS No. : 126-86-3 EC-No. : 204-809-1 REACH No. : 01-2119954390-39-xxxx	Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Chronic 3; H412	0.1 – 1.0 % by weight
1,2-benzisothiazol-3(2H)- one	CAS No. : 2634-33-5 EC-No. : 220-120-9 Index-No. : 613-088-00-6	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	0.01 – 0.1 % by weight
2-Methyl-2H-isothia- zol-3-on	CAS No. : 2682-20-4 EC-No. : 220-239-6	Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 2; H330 Skin Corr. 1B; H314 Skin Sens. 1A; H317 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	0.01 – 0.1 % by weight



SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	Move out of dangerous area.Take off all contaminated clothing immediately. Do not leave the victim unattended.Show this safety data sheet to the doctor in attendance.
In case of skin contact	Wash off immediately with soap and plenty of water while removing all con- taminated clothes and shoes. If skin irritation occurs, seek medical advice/at- tention.
In case of eye contact	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
If swallowed	Rinse mouth.Do NOT induce vomiting.Call a physician immediately.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO2), Foam, Water spray, Dry powder
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. Exposure to decomposition products may be a hazard to health.
5.3 Advice for firefighters Special protective equipment for firefighting	In the event of fire, wear self-contained breathing apparatus.
Additional information on firefight- ing	The product itself does not burn. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.Do not allow run-off from fire fighting to enter drains or water courses.
SECTION C: Assidental values	manauras

SECTION 6: Accidental release measures

6.1 Personal precautions, protective Personal precautions	equipment and emergency procedures Use personal protective equipment.
6.2 Environmental precautions Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.
6.3 Methods and material for contain	nment and cleaning up
Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated surface thoroughly. Treat recovered material as described in the section "Disposal considera- tions".
6.4 Reference to other sections	
Reference to other sections	Disposal considerations See also section 13



SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	Handle and open container with care. Avoid contact with skin and eyes.
Precautions	Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8. Observe label precautions.
Advice on protection against fire and explosion	No special protective measures against fire required.
7.2 Conditions for safe storage, including any incompatibilities	

Keep in properly labelled containers.Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Protect from frost.
12
5 – 25 °C

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

2,4,7,9-Tetramethyldec-5-in-4,7-diol

DNEL

Value	Target group	Exposure route	Exposure frequency	Source
1,5 mg/kg	Workers	Oral	Short-term effects sys-	100
			temic	
0,5 mg/kg	Workers	Oral	Long term effects sys-	100
			temic	
5,28 mg/m ³	Workers	inhale	Short-term effects Lo-	100
			cal	
1,76 mg/m ³	Workers	inhale	Long term effects sys-	100
			temic	

Source : 100 - Firmendaten

PNEC

Value	Target group	Exposure route	Source
0,04 mg/l	Environment	freshwater	100
0,004 mg/l	Environment	marine water	100
0,4 mg/l	Environment	Intermittent release.	100
7 mg/l	Environment	wastewater treatment plant	100
0,32 mg/kg	Environment	freshwater sediment	100
0,032 mg/kg	Environment	marine sediment	100
0,028 mg/kg	Environment	Soil	100

Source : 100 - Firmendaten

8.2 Exposure controls

Respiratory protection

Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).

Note: Should no job-related limit values are indicated, the product, which a monitoring exposure limit is allocated, do not contains ingredients in relevant concentrations.

Safety Data Sheet as per regulation (EC) 1907/2006 Commercial Product Name : FS10 - 904 SD EFFEKTBINDEMITTEL FOLCO AQUASCREEN FS 10 Article-No. : 15640-904 Revision Date : 23.06.2016 Version : 3.0 /en



Replaces version from : 08.02.2016 Print date : 11.11.2016

Hand protection	Protective gloves complying with EN 374.Please observe the instructions re- garding permeability and breakthrough time which are provided by the sup- plier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Unsuitable material :	woven fabric, Leather gloves
Suitable material :	Nitriles
Eye protection	Tightly fitting safety goggles
Skin and body protection	Wear suitable protective equipment. Long sleeved clothing
General protective and hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and at the end of workday. Use protective skin cream before handling the product. Avoid contact with the skin and the eyes.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Form	Liquid
Colour	milky
Odour	characteristic
*pH	7 - 8
*Melting point [°C] / Freezing point [°C]	approx. 0 °C
*Boiling point [°C]	approx. 100 °C
Evaporation rate [kg/(s*m²)]	not determined
*Vapour pressure [kPa]	123 hPa
Temperature :	approx. 50 °C
Vapour density	not determined
*Density [g/cm³]	approx. 1,05 – 1,25 g/cm ³
Temperature :	approx. 20 °C
Water solubility [g/l]	
Remarks :	miscible
Partition coefficient n-octanol /wa- ter (log P O/W)	not determined
Autoignition temperature [°C]	not determined
*Viscosity, dynamic [kg/(m*s)]	approx. 35 – 45 dPa*s
Temperature :	20 °C
•	
Measuring method :	Haake-Viscotester
	Haake-Viscotester Not relevant



SECTION 10: Stability and reactivity

10.4 Conditions to avoid

Conditions to avoid None under normal processing.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Hazardous ingredients

2,4,7,9-Tetramethyldec-5-in-4,7-diol

Oral toxicity [mg/kg]	Test criterion	Test species	Source
4600 mg/kg	LD50	rat	100
Source : 100 - Eirmondaton			

Source : 100 - Firmendaten

Dermal toxicity [mg/kg]	Test criterion	Test species	Duration	Source
>2001 mg/kg	LD50	rat	24h	100
C				

Source : 100 - Firmendaten

Inhalative toxicity [mg/	Test criterion	Test species	Exposure duration	Source
1]				
>20 mg/l	LC50	rat	1 hour	100

Source : 100 - Firmendaten

Irritant effect on skin	No skin irritation	
Irritant effect on eyes	Causes serious eye irritation.	
Sensitization	May cause sensitization by skin contact.	
Carcinogenic effects	No known effect.	
Mutagenicity	No known effect.	
Reproduction toxicity	No known effect.	
Specific target organ toxicity (single exposure) [mg/kg] Sou		Source
No known effect.		100

Source : 100 - Firmendaten

Specific target organ toxicity (repeated exposure) [mg/kg]	Source
No known effect.	100

Source : 100 - Firmendaten

1,2-BENZISOTHIAZOL-3(2H)-ONE

Oral toxicity [mg/kg]	Test criterion	Test species	Source
1193 mg/kg	LD50	rat	100
6 100 EL L.			

Source : 100 - Firmendaten

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
4115 mg/kg	LD50	rat	100

Source : 100 - Firmendaten

Irritant effect on skin

Skin irritation

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Irritant effect on eyes	Risk of serious damage to eyes.
Sensitization	May cause sensitization by skin contact.
Carcinogenic effects	no data available
Mutagenicity	no data available
Reproduction toxicity	no data available

2-Methyl-2H-isothiazol-3-on

Oral toxicity [mg/kg]	Test criterion	Source
285 mg/kg	LD50	100
	LDJU	10

Source : 100 - Firmendaten

Dermal toxicity [mg/kg]	Test criterion	Test species	Source	
326 mg/kg	LD50	rabbit	100	
Source : 100 - Firmendaten				

LC50 Inhalation 4h for dusts and sprays [mg/l]	Test criterion	Test species	Measuring method	Exposure duration	Source
0,11 mg/l	LC50	rat	OECD Test Guide- line 403	4h	2

Source : 2 - SimChem

Irritant effect on skin	irritating
Measuring method	OECD Test Guideline 404
Test species	rabbit
Irritant effect on eyes	May cause irreversible eye damage.
Measuring method	Draize Test
Test species	rabbit
Irritant effect on the respira- tory tract	May cause irritation of respiratory tract.

11.2 Additional information

Other information (chapter 11.) No toxicology information is available.

SECTION 12: Ecological information

12.1 Toxicity

Hazardous ingredients

2,4,7,9-Tetramethyldec-5-in-4,7-diol

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

Source : 100 - Firmendaten

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Toxicity to daphnia	Test criterion	Test species	Exposure duration	Source
[mg/l]				
91 mg/l	EC 50	Daphnia magna (Water	48 h	100
		flea)		

Source : 100 - Firmendaten

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
82 mg/l	EC 50	Selenastrum capricor-	72 h	100
		nutum (green algae)		

Source : 100 - Firmendaten

Bioaccumulation 2,64 log Pow

Mobility

Mobility No information available.

1,2-BENZISOTHIAZOL-3(2H)-ONE

Toxicity to fish [mg/l]	Test criterion	Test species	Exposure duration	Source
2,18 mg/l	LC50	Oncorhynchus mykiss	96h	72
		(rainbow trout)		

Source : 72 – Verordnung (EG) Nr. 1272/2008 des Europäischen Parlaments und des Rates vom 16. Dezember 2008 über die Einstufung Kennzeichnung und Verpackung von Stoffen und Gemischen (Tab. 3.1)

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Source
2,94 mg/l	EC 50	Daphnia magna (Water flea)	48 h	100

Source : 100 - Firmendaten

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
0,11 mg/l	ErC50	Pseudokirchneriella	72 h	100
		subcapitata		

Source : 100 - Firmendaten

2-Methyl-2H-isothiazol-3-on

Toxicity to fish [mg/l]	Source
4,77 mg/l	100
Source : 100 - Firmendaten	

Toxicity to daphnia [mg/l]	Source
1,9 mg/l	100
Courses + 100 - Firmon datam	

Source : 100 - Firmendaten

Toxicity to algae [mg/l]	Test species	Source
0,158 mg/l	Selenastrum capricornutum (green algae)	100
Source : 100 Eirmondaton		

Source : 100 - Firmendaten

NOEC (daphnia) [mg/l]	Test species	Duration of dosage	Source
0,04 mg/l	Daphnia magna (Water flea)	21 day(s)	100

Source : 100 - Firmendaten

Ready degradability



12.5 Results of PBT and vPvB assess	12.5 Results of PBT and vPvB assessment				
Results of PBT characteristics deter- mination	This preparation contains no substance considered to be persistent, bioaccu- mulating nor toxic (PBT).				
12.6 Other adverse effects					
Further information on ecology	We have no quantitative data concerning the ecological effects of this prod- uct.				
SECTION 13: Disposal conside	<u>erations</u>				
13.1 Waste treatment methods					
Disposal considerations	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. The following Waste Codes are only sugges-tions:				
Waste Code	08 01 12: waste paint and varnish other than those mentioned in 08 01 11 08 03 13: waste ink other than those mentioned in 08 03 12				
Uncleaned empty packaging	-				

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	Non dangerous good	Non dangerous good	Non dangerous good IATA
14.2 UN proper shipping		Non dangerous good	Non dangerous good
name			
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 haz- ards	Not applicable.	Not applicable.	Not applicable.

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

Transport in bulk according to An- Not relevant nex II of MARPOL73/78 and the IBC Code

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Additional regulations Additionally, observe any national regulations!

SECTION 16: Other information

Relevant H-phrases	EUH208: Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol; 1,2- benzisothiazol-3(2H)-one; 2-Methyl-2H-isothiazol-3-on. May produce an allergic reaction. EUH210: Safety data sheet available on request. H301: Toxic if swallowed. H302: Harmful if swallowed. H311: Toxic in contact with skin. H314: Causes severe skin burns and eye damage. H315: Causes skin irritation.
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Replaces version from : 08.02.2016

Version : 3.0 /en	Print date : 11.11.2016
	 H317: May cause an allergic skin reaction. H318: Causes serious eye damage. H330: Fatal if inhaled. H335: May cause respiratory irritation. H400: Very toxic to aquatic life. H411: Toxic to aquatic life with long lasting effects. H412: Harmful to aquatic life with long lasting effects.
Wording of the hazard classes	Eye Dam.: Serious eye damage Skin Sens.: Skin sensitization Aquatic Chronic: Hazardous to the aquatic environment Acute Tox.: Acute toxicity Skin Irrit.: Skin irritation Aquatic Acute: Hazardous to the aquatic environment Skin Corr.: Skin corrosion STOT SE: Specific target organ toxicity – single exposure
Modifications since last version	Modifications of the previous version are denoted with an asterisk (*).
Department issuing safety data sheet	Environmental Department
Further information	Full text of R-phrases referred to under sections 2 and 3

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.