

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

Commercial Product Name : FS 10 – 681 SD GOLD RB FOLCO AQUASCREEN FS 10

Article-No. : 15640-681

Revision Date : 02.03.2016

Version : 4.0 /en

FOLMANN

Replaces version from : 19.01.2016

Print date : 11.11.2016

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

1.1 Product identifier

Commercial Product Name FS 10 – 681 SD GOLD RB FOLCO AQUASCREEN FS 10

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

Relevant identified uses printing ink

1.3 Details of the supplier of the safety 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 identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 Aquatic Acute 1; H400 Aquatic Chronic 2; H411

2.2 Label elements

Hazard pictogram



GHS09

Signal word

Warning

H-statement(s)

H410: Very toxic to aquatic life with long lasting effects.

P-statement(s)

P273: Avoid release to the environment.
P391: Collect spillage.

*Further information

EUH208: Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol; mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.

SECTION 3: Composition/information on ingredients

3.2 Mixture

Chemical characterization Acrylat

Hazardous ingredients

Ingredient		Classification (EC) 1272/2008	Concentration
COPPER	CAS No. : 7440-50-8 EC-No. : 231-159-6 REACH No. : 01-2119480154-42-XXXX	Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	10.0 – 15.0 % by weight

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Ingredient		Classification (EC) 1272/2008	Concentration
2,2' -oxybisethanol	CAS No. : 111-46-6 EC-No. : 203-872-2 Index-No. : 603-140-00-6 REACH No. : 01-2119457857-21-xxxx	Acute Tox. 4; H302 STOT RE 2; H373	5.0 – 10.0 % by weight
zinc powder – zinc dust (stabilized)	CAS No. : 7440-66-6 EC-No. : 231-175-3 Index-No. : 030-002-00-7 030-001-01-9	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	1.0 – 5.0 % by weight
2,4,7,9-Tetramethyldec-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
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1)	CAS No. : 55965-84-9 2682-20-4 26172-55-4 Index-No. : 613-167-00-5	Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 3; H331 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	< 0.01 % 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 contaminated clothes and shoes. If skin irritation occurs, seek medical advice/attention.
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 (CO ₂), 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.
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5.3 Advice for firefighters

Special protective equipment for firefighting

In the event of fire, wear self-contained breathing apparatus.

Additional information on firefighting

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.

The product itself does not burn.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

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 containment 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 considerations".

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

Storage space and container requirements

Keep in properly labelled containers. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage specifications

Protect from frost.

TRGS 510

12

Recommended storage temperature

5 – 25 °C

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

COPPER

DNEL

Value	Target group	Exposure frequency	Source
0,041 mg/kg	Workers	Local effects systemic	2
0,082	Workers	Short-term effects systemic	2

Source : 2 – SimChem

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PNEC

Value	Exposure route	Source
7,8 µg/l	freshwater	2
5,2 µg/l	marine water	2
230 g/l	Onsite STP	2
87 mg/kg	freshwater sediment	2
676 mg/kg	marine sediment	2
65,5 mg/kg	Soil	2

Source : 2 – SimChem

ZINC POWDER – ZINC DUST**DNEL**

Value	Target group	Exposure route	Exposure frequency	Source
50 mg/day	Workers	Oral insoluble	Exposure time per day	100
5000 mg/day	Workers	dermal insoluble	Exposure time per day	100
2,5 mg/m ³	Consumers	inhale insoluble		100
5 mg/m ³	Workers	inhale insoluble		100

Source : 100 – Firmendaten

PNEC

Value	Target group	Exposure route	Source
20,6 µg/l	Environment	fresh water	100
6,1 µg/l	Environment	marine water	100
117,8 mg/kg	Environment	freshwater sediment	100
56,5 mg/kg	Environment	marine sediment	100
52 µg/l	Environment	STP	100
35,6 mg/kg	Environment	Soil	100

Source : 100 – Firmendaten

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 systemic	100
0,5 mg/kg	Workers	Oral	Long term effects systemic	100
5,28 mg/m ³	Workers	inhale	Short-term effects Local	100
1,76 mg/m ³	Workers	inhale	Long term effects systemic	100

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

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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.
Hand protection	Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier 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	gold
Odour	characteristic
*Melting point [°C] / Freezing point [°C]	approx. 0 °C
*Boiling point [°C]	approx. 100 °C
Evaporation rate [kg/(s*m ²)]	not determined
*Vapour pressure [kPa]	123 hPa
Temperature :	approx. 50 °C
Vapour density	not determined
*Density [g/cm ³]	
Temperature :	approx. 20 °C
Water solubility [g/l]	
Remarks :	miscible
Partition coefficient n-octanol /water (log P O/W)	not determined
Autoignition temperature [°C]	not determined
*Viscosity, dynamic [kg/(m*s)]	approx. 30 – 40 dPa*s
Temperature :	20 °C
Measuring method :	Haake-Viscotester
Explosive properties	Not relevant

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Oxidising properties 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****COPPER**

Oral toxicity [mg/kg]	Test criterion	Test species	Source
>480 mg/kg	LD50	rat	2

Source : 2 – SimChem

DIETHYLENE GLYCOL

Oral toxicity [mg/kg]	Test criterion	Test species	Source
12565 mg/kg	LD50	rat	100
19600	LD50	rat	100

Source : 100 – Firmendaten

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
11890 mg/kg	LD50	rabbit	100
13300	LD50	rabbit	100

Source : 100 – Firmendaten

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 – Firmendaten

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

Source : 100 – Firmendaten

Inhalative toxicity [mg/l]	Test criterion	Test species	Exposure duration	Source
>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.

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

Source : 100 – Firmendaten

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

Source : 100 – Firmendaten

GEMISCH AUS 5-CHLOR-2-METHYL-2H-ISOTHIAZOL-3-ON UND 2-METHYL-2H-ISOTHIAZOL-3-ON (3:1)

Oral toxicity [mg/kg]	Test criterion	Test species	Measuring method	Source
2131 mg/kg	LD50	rat	OECD Test Guideline 401	100

Source : 100 – Firmendaten

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

Source : 100 – Firmendaten

Inhalative toxicity [mg/l]	Test criterion	Test species	Exposure duration	Source
0,33 mg/l	LC50	rat	4 hours	100

Source : 100 – Firmendaten

Irritant effect on skin	corrosive effects
Test species	rabbit
Irritant effect on eyes	irritating
Test species	rabbit
Sensitization	Causes sensitization.
Test species	guinea pig

11.2 Additional information

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

SECTION 12: Ecological information**12.1 Toxicity****Hazardous ingredients****COPPER**

NOEC (fish) [mg/l]	Test species	Source
0,0114 mg/l	Oncorhynchus mykiss (rainbow trout)	100

Source : 100 – Firmendaten

DIETHYLENE GLYCOL

Toxicity to fish [mg/l]	Source
75200	100

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Source : 100 – Firmendaten

Toxicity to daphnia [mg/l]	Source
>10000 mg/l	100

Source : 100 – Firmendaten

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 (fathead minnow)	96 h	100
42 mg/l	LC50	Cyprinus carpio (Carp)	96 h	100

Source : 100 – Firmendaten

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Source
91 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
82 mg/l	EC 50	Selenastrum capricornutum (green algae)	72 h	100

Source : 100 – Firmendaten

Bioaccumulation 2,64 log Pow

Mobility

Mobility No information available.

GEMISCH AUS 5-CHLOR-2-METHYL-2H-ISOTHIAZOL-3-ON UND 2-METHYL-2H-ISOTHIAZOL-3-ON (3:1)

Toxicity to fish [mg/l]	Source
0,28 mg/l	100

Source : 100 – Firmendaten

Toxicity to daphnia [mg/l]	Source
0,16 mg/l	100

Source : 100 – Firmendaten

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 We have no quantitative data concerning the ecological effects of this product.

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SECTION 13: Disposal considerations**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 suggestions:

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	3082	3082	3082
14.2 Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.2 UN proper shipping name		ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Environmentally hazardous substance, liquid, n.o.s.
14.3 Transport hazard class(es)	9	9	9
14.4 Packaging group	III	III	III
Danger releasing substance	KUPFER	COPPER	COPPER
Inducer/cause of environmental hazard	KUPFER	COPPER	COPPER
14.5 Environmental hazards	U - Environmentally hazardous	U - marine pollutant	U - Environmentally hazardous
Labels	9 	9 	9 
Risk No.	90		
Category	3		
Factor	1		
Classification Code	M6		
Tunnel restriction code	E		
EmS		F-A;S-F	
Stowage category		A	

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

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

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; mixture of 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-

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methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.

H301: Toxic if swallowed.

H302: Harmful if swallowed.

H311: Toxic in contact with skin.

H314: Causes severe skin burns and eye damage.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H331: Toxic if inhaled.

H373: May cause damage to organs through prolonged or repeated exposure .

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

H411: Toxic to aquatic life with long lasting effects.

H412: Harmful to aquatic life with long lasting effects.

Wording of the hazard classes

Aquatic Acute: Hazardous to the aquatic environment

Aquatic Chronic: Hazardous to the aquatic environment

Acute Tox.: Acute toxicity

STOT RE: Specific target organ toxicity – repeated exposure

Eye Dam.: Serious eye damage

Skin Sens.: Skin sensitization

Skin Corr.: Skin corrosion

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) 1272/2008 [CLP]

Classification	evaluation
Aquatic Acute 1; H400	
Aquatic Chronic 2; H411	

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.