

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

### **1.1 Product identifier**

Commercial Product Name FTD 900 METALLEFFEKT-BINDEMittel FOLCO AQUAFLEX FTD

### **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 Eye Irrit. 2; H319 Skin Sens. 1; H317

### **2.2 Label elements**

Hazard pictogram



GHS07

Signal word

Warning

Hazardous component(s) to be indicated on label 2, 4, 7, 9-Tetramethyldec-5-in-4, 7-diol, 2-Methyl-2H-isothiazol-3-on, 1, 2-benzisothiazol-3(2H)-one

H-statement(s)

H317: May cause an allergic skin reaction.  
H319: Causes serious eye irritation.

P-statement(s)

P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364: Take off contaminated clothing and wash it before reuse.  
P337+P313: If eye irritation persists: Get medical advice/attention.

\*Further information

Contains 24,9 % of components with unknown hazards to the aquatic environment.

## **SECTION 3: Composition/information on ingredients**

### **3.2 Mixture**

Chemical characterization Acrylat

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**FOLMANN****AQUAFLEX FTD**

Article-No. : 15690-008

Revision Date : 12.07.2016

Version : 4.0 /en

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**Hazardous ingredients**

Ingredient		Classification (EC) 1272/2008	Concentration
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
2-Methyl-2H-isothiazol-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
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

**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 <sub>2</sub> ), 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.
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## 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

**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 <sup>3</sup>	Workers	inhale	Short-term effects Local	100
1,76 mg/m <sup>3</sup>	Workers	inhale	Long term effects systemic	100

Source : 100 - Firmendaten

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## 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.

### 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	milky
Odour	characteristic
pH	7 – 9
Melting point [°C] / Freezing point [°C]	ca.0 °C
Boiling point [°C]	approx. 100 °C
Evaporation rate [kg/(s*m <sup>2</sup> )]	not determined
Vapour pressure [kPa]	123 hPa
Temperature :	50 °C
Vapour density	not determined
Density [g/cm <sup>3</sup> ]	0,9 – 1,2 g/cm <sup>3</sup>

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Water solubility [g/l]

Remarks : miscible

Partition coefficient n-octanol /water (log P O/W) not determined

Autoignition temperature [°C] not determined

Explosive properties Not relevant

Oxidising properties Not relevant

**9.2 Other information**

Flow time [s] 50 – 65 sec

Temperature : 20 °C

Measuring method : DIN cup 4 mm

**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 – 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.

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

Source : 100 – Firmendaten

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

Source : 100 - Firmendaten

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

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

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.

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

Oral toxicity [mg/kg]	Test criterion	Test species	Source
1193 mg/kg	LD50	rat	100

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
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

**11.2 Additional information**

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

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**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 (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.

**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

Source : 100 - Firmendaten

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

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****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 (rainbow trout)	96h	72

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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 subcapitata	72 h	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.

**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	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 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.

**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



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## 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

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.  
H317: May cause an allergic skin reaction.  
H318: Causes serious eye damage.  
H319: Causes serious eye irritation.  
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 Irrit.: Serious eye irritation  
Skin Sens.: Skin sensitization  
Eye Dam.: Serious eye damage  
Aquatic Chronic: Hazardous to the aquatic environment  
Acute Tox.: Acute toxicity  
Skin Corr.: Skin corrosion  
STOT SE: Specific target organ toxicity – single exposure  
Aquatic Acute: Hazardous to the aquatic environment  
Skin Irrit.: Skin irritation

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
Eye Irrit. 2; H319	
Skin Sens. 1; H317	

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.