

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

1.1 Product identifier

Commercial Product Name FS 10 – 634 SD PERLGLANZ 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 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; 2-Methyl-2H-isothiazol-3-on; 1,2-benzisothiazol-3(2H)-one. 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-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 |
| 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-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 |

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. |
|---|--|

5.3 Advice for firefighters

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|---|--|
| 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

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|-------------------------|--|
| 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

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|---|--|
| 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 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

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. |
|------------------------|---|

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| | |
|---|---|
| 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 | perly lustre |
| Odour | characteristic |
| *pH | 7 – 9 |
| *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] | approx. 0,95 – 1,05 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. 18 – 22 dPa*s |
| Temperature : | 20 °C |
| Measuring method : | Haake-Viscotester |
| Explosive properties | Not relevant |
| Oxidising properties | Not relevant |

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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

| 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 |

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 |

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

Source : 100 – Firmendaten

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| 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.

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 |

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

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

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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

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; 2-Methyl-2H-isothiazol-3-on; 1,2-benzisothiazol-3(2H)-one. 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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| | |
|---|--|
| Wording of the hazard classes | 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. 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. | |