

Safety Data Sheet

Stalosan F

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

1.1. Product identifier

Trade name: Stalosan F

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

Recommended uses: Powder disinfectant for use in livestock production
This safety data sheet contains general information concerning the chemical, but specific instructions and guidelines are indicated on the product label and in the instructions for use.
Use biocides safely. Always read the label and product information before use.

1.3. Details of the supplier of the safety data sheet

Supplier

Company: Vitfoss A/S
Address: Ulsnæs 34
Postboks 96
Zip code: 6300
City: Gråsten
Country: DENMARK
E-mail: vitfoss@vitfoss.dk
Phone: +45 33685600

1.4. Emergency Telephone Number

+45 33 68 56 00 (Vitfoss A/S)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

HPR classification: Aquatic Chronic 2;H411

Most serious harmful effects: Toxic to aquatic life with long lasting effects. May cause slight irritation to the skin and eyes.

2.2. Label elements

Signal word: Warning

Contains

Substance: tosylchloramide sodium 2,5 g/kg

H-phrases

H411 Toxic to aquatic life with long lasting effects.

P-phrases

P273 Avoid release to the environment.

P501 Dispose of contents/container in accordance with local regulation.

2.3. Other hazards

The product does not contain any PBT or vPvB substances.

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SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	CAS number	Concentration	Notes
Iron oxide	1309-37-1	< 5%	
Iron (II) sulfate	7720-78-7	< 5%	
Copper sulphate	7758-98-7	< 2.5%	
tosylchloramide sodium	127-65-1	0.25%	

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:	Seek fresh air, wash out mouth with water and blow nose thoroughly. Seek fresh air.
Ingestion:	Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Seek medical advice in case of persistent discomfort.
Skin contact:	Remove contaminated clothing. Wash skin with soap and water. Seek medical advice in case of persistent discomfort.
Eye contact:	Flush with water (preferably using eye wash equipment) until irritation subsides. Seek medical advice if symptoms persist.
General:	When obtaining medical advice, show the safety data sheet or label.

4.2. Most important symptoms and effects, both acute and delayed

May cause slight irritation to the skin and eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptoms. No special immediate treatment required.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media: The product is not directly flammable. Choose extinguishing agents based on the surrounding fire.

Unsuitable extinguishing media: Do not use water stream, as it may spread the fire.

5.2. Special hazards arising from the substance or mixture

Can generate harmful flue gases containing carbon monoxide in the event of fire.

5.3. Advice for fire-fighters

Move containers from danger area if it can be done without risk. Avoid inhalation of vapour and flue gases - seek fresh air. Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit but gas-tight suit when close proximity to the substance or its vapours is likely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Stay upwind/keep distance from source. Wear gloves. Wear safety goggles if there is a risk of dust contact with eyes.

For emergency responders: Normal protective clothing is recommended.

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6.2. Environmental precautions

Prevent spillage from entering drains and/or surface water.

6.3. Methods and material for containment and cleaning up

Sweep up/collect spills to suitable waste containers.

6.4. Reference to other sections

See section 8 for type of protective equipment. See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Work processes where generation of dust may occur must be performed under effective process ventilation (e.g. local exhaust ventilation). Running water and eye wash equipment must be available. Wash hands before breaks, before using restroom facilities, and at the end of work.

7.2. Conditions for safe storage, including any incompatibilities

Store safely, out of reach of children and away from food, animal feeding stuffs, medicines, etc. Store in a dry, cool, well-ventilated area.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit

Substance name	Time period	ppm	mg/m3	fiber/cm3	Remarks	Notations
Iron oxide	ACGIH STEL					A4, R
Iron oxide	ACGIH TWA		5			A4, R
Iron oxide	OSHA		10			

A4 = Not Classifiable as a Human Carcinogen.

R = Respirable fraction.

Measuring methods:

Compliance with the stated occupational exposure limits may be checked by occupational hygiene measurements.

Legal basis:

ACGIH Threshold Limit Values (TLV's) and Biological Exposure Indices (BEI's), 2017. OSHA 29 CFR part 1910.1000, table Z1-Z3, Limits for Air Contaminants 2006. There might be additional exposure limits due to regional and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

8.2. Exposure controls

Appropriate engineering controls:

Wear the personal protective equipment specified below.

Personal protective equipment, eye/face protection: Not required.

Personal protective equipment, skin protection: Not required.

Personal protective equipment, hand protection: Plastic or rubber gloves recommended.

Personal protective equipment: Wear respiratory protective equipment with P2 filter when performing dusty work.

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respiratory protection:

Environmental exposure controls: Ensure compliance with local regulations for emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Parameter	Value/unit
State	Powder
Colour	Pink
Odour	Mild
Solubility	Poorly soluble in the following: Water.
Explosive properties	No data
Oxidising properties	No data

Parameter	Value/unit	Remarks
pH (solution for use)	No data	
pH (concentrate)	~ 3.5	
Melting point	No data	
Freezing point	No data	
Initial boiling point and boiling range	No data	
Flash Point	No data	
Evaporation rate	No data	
Flammability (solid, gas)	No data	
Flammability limits	No data	
Explosion limits	No data	
Vapour pressure	No data	
Vapour density	No data	
Relative density	No data	
Partition coefficient n-octanol/water	No data	
Auto-ignition temperature	No data	
Decomposition temperature	No data	
Viscosity	No data	
Odour threshold	No data	

9.2 Other information

Other Information: None.

SECTION 10: Stability and reactivity

10.1. Reactivity

No known data.

10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

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Avoid contact with moisture and water.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Product decomposes in fire conditions or when heated to high temperatures, and inflammable and toxic gases may be released.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Iron oxide

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		> 10000mg/kg bw			

Iron (II) sulfate

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		319mg/kg bw			

Copper sulphate

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		300mg/kg bw			

Ingestion may cause discomfort. The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Acute toxicity - dermal: The product does not have to be classified. Test data are not available.

Acute toxicity - inhalation: The product does not have to be classified. Test data are not available.

Skin corrosion/irritation: May cause slight irritation. The product does not have to be classified. Test data are not available.

Serious eye damage/eye irritation: May cause eye irritation. The product does not have to be classified. Test data are not available.

Respiratory sensitisation or skin sensitisation: The product does not have to be classified. Test data are not available.

Germ cell mutagenicity: The product does not have to be classified. Test data are not available.

Carcinogenic properties: The product does not have to be classified. Test data are not available.

Reproductive toxicity: The product does not have to be classified. Test data are not available.

Single STOT exposure: The product does not have to be classified. Test data are not available.

Repeated STOT exposure: The product does not have to be classified. Test data are not available.

Aspiration hazard: The product does not have to be classified. Test data are not available.

Other toxicological effects: None known.

SECTION 12: Ecological information

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12.1. Toxicity

Iron (II) sulfate

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Salvelinus fontinalis	96 h	96hLC50	1.1 - 4.8mg/l			
Crustacea	Daphnia sp.	48 h	48hEC50	< 140mg/l			

Copper sulphate

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Oncorhynchus mykiss	96 h	96hLC50	0.286mg/l			
Crustacea	Daphnia pulex	48 h	48hEC50	0.082mg/l			
Algae	Selenastrum capricornutum	72 h	72hIC50	0.0217mg/l			

Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

Test data are not available.

12.3. Bioaccumulative potential

Test data are not available.

12.4. Mobility in soil

Test data are not available.

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

If this product as supplied becomes a waste, it meets the criteria of a hazardous waste as defined under Canadian Environmental Protection Act, 1999 (CEPA 1999). Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

Category of waste: 16 03 04 inorganic wastes other than those mentioned in 16 03 03
15 02 02* absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing

SECTION 14: Transport information

Land transport (TDG)

14.1. UN-No.:	3077	14.4. Packing group:	III
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper sulphate)	14.5. Environmental hazards:	The product must be labelled as an environmental hazard (symbol: fish and tree) in packaging sizes of more than 5 kg/l.
14.3. Transport hazard class(es):	9		

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Hazard label(s): 9

Sea transport (IMDG)

14.1. UN-No.:	3077	14.4. Packing group:	III
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper sulphate)	14.5. Environmental hazards:	The product must be labelled as a Marine Pollutant (MP) in packaging sizes of more than 5 kg/l.
14.3. Transport hazard class(es):	9	Environmental Hazardous Substance Name(s):	
Hazard label(s):	9	IMDG Code segregation group:	- None -
EmS:	F-A, S-F		

Air transport (ICAO-TI / IATA-DGR)

14.1. UN-No.:	3077	14.4. Packing group:	III
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper sulphate)	14.5. Environmental hazards:	The product must be labelled as an environmental hazard (symbol: fish and tree) in packaging sizes of more than 5 kg/l.
14.3. Transport hazard class(es):	9		
Hazard label(s):	9		

14.6. Special precautions for user

None.

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

Not applicable.

SECTION 15: Regulatory information

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

Special Provisions: Covered by:
Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products.
(as subsequently amended)

15.2. Chemical Safety Assessment

Other Information: Chemical safety assessment has not been performed.

SECTION 16: Other information

Version history and indication of changes

Version	Revision date	Responsible	Changes
1.0.0	2018-04-24	Bureau Veritas HSE / MPE	
2.0.0	2018-07-10	Bureau Veritas HSE / MPE	1, 2, 3, 4, 11, 12, 16
3.0.0	2018-08-17	Bureau Veritas HSE / MPE	1, 2, 3, 15, 16

Abbreviations:
PBT: Persistent, Bioaccumulative and Toxic
STOT: Specific Target Organ Toxicity
vPvB: Very Persistent and Very Bioaccumulative

Other Information: This safety data sheet has been prepared for and applies to this product only. It is based on our current knowledge and the information that the supplier was able to provide about the product at the time of preparation. The safety data sheet complies with applicable law on

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preparation of safety data sheets in accordance with Hazardous Products Regulations as subsequently changed.

Training advice: A thorough knowledge of this safety data sheet should be a prerequisite condition.

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Revision date: 2018-08-17

Replaces date: 2018-07-10

Classification method: Calculation based on the hazards of the known components.

SDS is prepared by

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