

## Safety Data Sheet according to EC 1907/2006

### Fluorstatic 70 / 300 / 1850

Article No: TS4500, TS4550, TS4560

Document-No.: S0530

Edition: 2

Revision date / Print date:

Creation date: 2023-10-06

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## 1. Identification of the substance/mixture and of the company

### 1.1 Product identifier:

Identification of the mixture: Fluorstatic 70, Fluorstatic 300, Fluorstatic 1850

Hazard-determining components of labelling: None

### 1.2 Relevant identified uses of the substance or mixture und uses advised against:

Relevant identified uses: Industrial use. Lubricant.

Uses advised against: At this moment we have not identified any uses advised against.

### 1.3 Details of the supplier of the safety data sheet:

Dr. Tillwich GmbH Telephone.: +49 (0) 7451 5386-0  
Werner Stehr  
Murber Steige 26  
D-72160 Horb, Germany

Qualified person responsible for the safety data sheet: Department occupational health and safety  
E-mail qualified person: [sicherheit@tillwich-stehr.com](mailto:sicherheit@tillwich-stehr.com)

### 1.4 Emergency telephone number:

Name	Place	Emergency call	Mail	Availability
Dr. Tillwich GmbH	Horb	+49 (0) 7451 5386-0	<a href="mailto:sicherheit@tillwich-stehr.com">sicherheit@tillwich-stehr.com</a>	8.00 am until 5.00 pm (UTC + 1h)
Dr. Tillwich GmbH	Horb	+49 (0) 171-5477230		5.00 pm until 8.00 am (UTC + 1h)

## 2. Hazards identification

### 2.1 Classification of the substance or mixture:

Hazard class / hazard warnings: None.

Precautionary Statements - Prevention: None.

Precautionary Statements Storage: None.

### 2.2 Label elements:

Pictograms: None.

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Signal word: None.

**The products are not hazardous substances / mixtures.**

**They do not contain any hazardous ingredients above the consideration limits.**

Classification according to GHS.

#### 2.3 Other hazards:

Results of PBT and vPvB assessment:

According to the results of the assessment of the individual components, this mixtures contains neither a PBT nor a vPvB substance.

**According to REACH regulation 1907/2006, article 31, no safety data sheet is required for this product.**

### 3. Composition / information on ingredients

#### 3.1 Substance:

#### 3.2 Mixtures:

Characterisation: Fluorinated Synthetic Oils with additives.

The ingredients are not dangerous or are below the consideration limit.

Classification according to EU directives and national law in the current versions.

### 4. First aid measures

#### 4.1 Description of first aid measures:

Skin contact: Remove contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. After work wash hands with water and soap.

Eye contact: Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Immediately call a physician.

Inhalation: Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Ingestion: If swallowed, do not induce vomiting: seek medical advice.

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

None.

#### 4.3 Indication of any immediate attention and special treatment needed:

None.

### 5. Firefighting measures

**5.1 Extinguishing media:** CO<sub>2</sub> – foam or powder, water spray, alcohol resistant foam.  
Cool containers with water in case of fire.

Unsuitable extinguishing Media: Water jet

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#### 5.2 Special hazards arising from the substance or mixture:

Toxic gases are formed during thermal decomposition.  
Exposure to decomposition products may cause a health hazard.  
Do not empty contaminated water into drains, ground and lakes or rivers.

Hazardous combustion products:  
Carbon oxides, highly toxic fluorine compounds.

#### 5.3 Advice for firefighters:

Wear self-contained breathing apparatus and tightly closing protective suit.  
Protect from hydrogen fluoride fumes which react with water to form hydrofluoric acid.

### 6. Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures:

Avoid contact with skin, eyes and clothes.

#### 6.2 Environmental precautions:

Do not empty the product into drains, ground and waters. Prevent from entering into drainage system.

#### 6.3 Methods and material for containment and cleaning up:

Cover with inorganic absorbent material. The material must be disposed of as hazardous waste.  
Clean contaminated objects and the floor thoroughly, observing environmental regulations.

#### 6.4 Reference to other sections:

Hazardous combustion products: see section 5  
Personal protective equipment: see section 8  
Incompatible materials: see section 10  
Disposal considerations: see section 13

### 7. Handling and storage

#### 7.1 Precautions for safe handling:

Take precautionary measures against static discharge. Do not eat, drink or smoke when using this products. Keep away from food and drink. Keep container tightly closed when not in use.

Measures to protect the environment:  
Prevent emission into environment.

#### 7.2 Conditions for safe storage, including any incompatibilities:

Keep only in the original container, protected from light and heat, in a well ventilated and fire resistant area. Storing large quantities in approved drip pans with sufficient volume.  
Avoid contact with oxidizing agents. Keep away from inflammable materials and fluids.  
Recommended storage temperature : 15° C - 25° C.

#### 7.3 Specific end uses:

No information available.

### 8. Exposure contrals / personal protection

#### 8.1 Control parameters:

Components with workplace-related limit values to be monitored:

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AWG Threshold limit value (Germany) IOELV (European Union)	No data available.	
BWG Biological threshold limit value (Germany)	No data available.	

**Information**

AGW: The workplace limit value is a time-weighted average concentration of a substance in the air at the workplace at which acute or chronic damage to the health of employees is not to be expected.

BGW: The biological limit value is a limit value for the concentration of a substance, its metabolite (metabolic product) or an exposure indicator in the biological material of an employee.

**DNEL-Values**                      **Derived No Effect Level / Derived Minimal Effect Level (DMEL)**

Longterm – Systemic effects		
Dermal	DNEL	No data available.
Inhalation	DNEL	No data available.
Longterm – Local effects		
Inhalation	DNEL	No data available.
Shortterm – Systemic effects		
Inhalation	DNEL	No data available.
Shortterm – Local effects		
Inhalation	DNEL	No data available.

**PNEC-Values**                      **Predicted No Effect Concentration**

Soil	No data available.
Sewage treatment plant	No data available.
Marine water	No data available.
Marine water sediment	No data available.
Fresh water	No data available.
Fresh water sediment	No data available.
Sporadic release	No data available.

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Technical precautions to avoid exposition on the job:  
Ensure adequate ventilation, especially in confined areas. Draw off vapours.

#### 8.2 Limitation and monitoring of exposure:

General protective and hygiene measures:

When using do not eat, drink or smoke.

Keep away from food, drink and animal food.

Take off all contaminated clothing immediately.

Wash hands before breaks and at end of work.

Avoid contact with skin and eyes.

Regular cleaning of equipment and at work area.

Eye/face protection:

Use safety goggles with side protection.

Skin Protection:

After work wash hands with water and soap.

Preventive skin protection required - Use protective hand lotion or wear suitable gloves from oil resistant material. Avoid longer and intensive skin contact.

Suitable gloves according EN 374:

Material: Nitrile rubber

Category: III

Thickness: 0,4 mm

Permeation time: Level 4 (> 120 min.)

The data were determined on laboratory conditions. The conditions in practical application can deviate. The data can only be a guideline, assisting to select the suitable gloves.

Contaminated gloves should be changed as fast as possible.

Respiratory protection:

Not necessary at room temperature.

Body protection:

Wear suitable protective clothing.

Other protective measures:

The usual precautionary measures for handling chemicals should be observed.

Environmental exposure controls:

Keep away from drains, surface and ground water. Prevent from entering into drainage system.

Avoid subsoil penetration.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties:

Physical state: liquid

Colour: colourless

Odour: odourless

Odour threshold: No data available.

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Melting point/freezing point:

Fluorstatic 70	- 50° C
Fluorstatic 300	- 40° C
Fluorstatic 1850	- 25° C

Boiling point / Boiling range: > 290° C

Flammability: Not applicable.

Explosion limit:

lower Not applicable. upper Not applicable

Flash point: Non flammable.

Ignition point: Not applicable. DIN 51794

Decomposition temperature: No data available.

pH-value: No data available.

Viscosity at 20°C: DIN51562

Fluorstatic 70	70 mm <sup>2</sup> /s
Fluorstatic 300	300 mm <sup>2</sup> /s
Fluorstatic 1850	1850 mm <sup>2</sup> /s

Water solubility at 20°C: Insoluble in water

Partition coefficient

n-octano l/ water (log-value): No data available.

Vapour pressure: No data available.

Density (20°C): 1,88 g/cm<sup>3</sup>

Relative vapour density: No data available.

Particle characteristics: Not applicable.

#### 9.2 Other Information:

Explosiveness:

None.

Oxidizing properties:

Not oxidizing.

## 10. Stability and reactivity

### 10.1 Reactivity:

No decomposition if used according to specifications.

### 10.2 Chemical stability:

The product is stable under normal ambient. Incipient decomposition above 280°C.

### 10.3 Possibility of hazardous reactions:

Avoid contact with oxidizing agent and inflammable materials.

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#### 10.4 Conditions to avoid:

Keep away from heat, hot surfaces, sources of ignition and sunlight.

#### 10.5 Incompatible materials:

Oxidizing agent.

#### 10.6 Hazardous decomposition products:

Incomplete burn or thermal decomposition leads to the formation of smoke, carbon dioxide, carbon monoxide. At temperatures > 280° C highly toxic fluorine compounds may be created.

### 11. Toxicological information

#### 11.1 Information on toxicological effects:

##### Acute toxicity:

Acute oral toxicity LD<sub>50</sub>: No data available.

Acute dermal toxicity LD<sub>50</sub>: No data available.

Acute inhalational toxicity LD<sub>50</sub>: No data available.

##### Irritation:

##### Skin:

No data available.

##### Eyes:

No data available.

##### Respiratory or skin sensitisation:

No data available.

##### CMR-Effects:

##### Carcinogenicity:

No data available.

##### Mutagenität:

No data available.

##### Reproductive toxicity:

No data available.

##### Specific target organ toxicity – single exposure:

No data available.

##### Specific target organ toxicity – repeated exposure:

No data available.

##### Aspiration hazard:

No data available.

##### Other Information (absorption, inhalation, ingestion):

No further data available.

#### 11.2 Endocrine disrupting properties:

No data available.

#### 11.3 Information about other Hazards:

No additional information.

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## 12. Ecological Information

### 12.1 Toxicity:

#### Acute fish toxicity:

There are no toxicological test data available.

#### Acute Daphnia Toxicity:

There are no toxicological test data available.

#### Acute Alga Toxicity:

There are no toxicological test data available.

#### Acute bacteria Toxicity:

There are no toxicological test data available.

#### Soil organisms:

There are no toxicological test data available.

### 12.2 Persistence and degradability:

#### Persistence:

No data available.

#### Biological Degradability:

No data available.

### 12.3 Bioaccumulative potential:

No data available.

### 12.4 Mobility in soil:

No data available.

### 12.5 Results of PBT and vPvB assessment:

According to the results of the assessment of the individual components, this mixture contains neither a PBT nor a vPvB substance.

### 12.6 Endocrine disrupting properties:

No data available.

### 12.7 Other adverse effects:

If handled and used properly, no environmental problems are to be expected.  
Do not discharge into ground or waters.

## 13. Disposal considerations

### 13.1 Waste treatment methods:

This materials and containers must be disposed of as hazardous waste.

Product:

EWC - Code: (European waste category list): 13 02 06\*.  
synthetic machine, gear and lubricating oils

Package:

EWC - Code: (European waste category list): 15 01 10\*  
contaminated package.

The allocation of the waste keys is to be accomplished branch and process specifically by the waste producer separately. The indicated waste keys are only recommendations for the disposal of the unmachined product.

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#### 14. Transport information

The products are not dangerous.

14.1 UN number.:

14.2 UN proper shipping name:

ADR  
IMDG  
ICAO-TI

14.3 Transport hazard class:

ADR / RID		
unclassified		
IMDG		
unclassified		
ICAO-TI		
unclassified		

14.4 Packing group:

14.5 Environmental hazards:

14.6 Special precautions for user:

None.

14.7 Carriage in bulk by sea in accordance with IMO instruments:

The cargo is not intended to be carried in bulk.

14.8 Information according to UN model regulations:

Quantities exempt:  
Limited Stock (LQ):  
Transport category:  
Tunnel registration:  
UN „Model Regulation“:

#### 15. Regulatory information

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

Classification and labeling according to EC No. 1272/2008.  
The products are classified and labeled to GHS.

**REACH, Annex XIV - Substances of Very High Concern / SVHC – candidate list.**

The components are not listed.

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#### **Directive 1005/2009 - Substances that Deplete the Ozone Layer (ODS)**

Not applicable.

Atmospheric half time:

Global Warming Potential (GWP):

#### **Directive 2019/1021 Persistent Organic Pollutants (POP)**

The components are not listed.

#### **Information about limitation of use:**

Employment restrictions concerning juveniles: § 22 JArbSchG.

Observe employment restrictions for mothers: § 11 MuSchG.

Classification according to the Operational Safety Ordinance Germany (BetrSichV): None.

#### **Waterhazard class:**

WGK 1: hazardous for water.

#### **Storage of hazardous substances in portable containers according to TRGS 510:**

Not applicable.

#### **National regulations Switzerland:**

#### **Ordinance on the Incentive Tax on Volatile Organic Compounds (VOCV)**

Not applicable.

#### **Other regulation:**

Note Directive 98/24 / EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

#### **Training advice:**

Provide adequate information, instruction and training for operators.

Special Information::

-

### **15.2 Chemical Safety Assessment:**

A Chemical Safety Assessment has not been carried out.

## **16. Additional Information**

Technical information based on a safety data sheet according to EC 1907/2006.

See notes in section 2.2 and 2.3.

The information of this Data Sheet represents our best knowledge. This information is for security reasons only and does not contain any characteristic properties guaranteed for a specific application. Any use of the product which is not in conformance with this Data Sheet or which involves using the product in combination with any other products or processes lies within the responsibility of the user.

The product is intended for industrial transformation / use only.

Indication of changes:

Adaptation to Regulation (EC) No. 1907/2002 (REACH), amended with 2020/878 EU.

The data sheet has been completely redesigned.

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#### Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods on the street
AGW	Threshold limit value (Germany)
AOX	Adsorbable organic halogen compounds
AVV	European Waste Catalogue
AwSV	German regulation on water-polluting substances
BCF	Bioconcentration factor
BGW	Biological threshold limit value (TRGS 903, Germany)
BOD	Biochemical oxygen demand
CAS	Chemical Abstracts Service
CLP	Classification, Labeling and Packaging (Directive EU-No. 1272/2008)
CMR	Carcinogen, Mutagen, Reprotoxic
COL	Chemical oxygen demand
DMEL	Derived Minimum Effect Level
DNEL	Derived No Effect Level
EC <sub>50</sub>	Median effective concentration
ED <sub>50</sub>	Median effective dose
ECHA	European Chemicals Agency
EINECS	European Inventory of Existing Commercial Chemical Substances
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
GisChem	Hazardous substances database of the BG RCI and the BGHM.
GWP	Global Warming Potential
ICAO	International Civil Aviation
IMDG-Code	International Maritime Code for Dangerous Goods
IMO	International Maritime Organisation
LC <sub>50</sub>	Median lethal concentration
LD <sub>50</sub>	Median lethal dose
LogPow	Octane-water partition coefficient
NOAEL	No Observed Adverse Effect Level
NOEC	Observed Effect Concentration
NOEL	No Observed Effect Level
OCP	Ozone Depletion Potential
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation EU-No. 1907/2006.
SVHS	Substances of Very High Concern
TRGS	Technical Rules for Hazardous Substances
UFI	Unique Formula Identifier
VCI	German Chemical Industry Association e.V.
VOC	Volatile organic compounds
vPvB	very Persistent and very Bioaccumulative
WGK	Water contaminating class (Germany)