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Preparation date: 07/2007

Edition: 3.4
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Commercial Name:
Art. No.

Antispread F2/50 Fluorcarbon 60
TE1205

1. Substance / Preparation and Company Name

- 1.1 Substance: Synthetic Epilamisation Agent
- 1.2 Company: Dr. Tillwich GmbH Phone: +49-7451-5386-0
Werner Stehr
Murber Steige 26 Fax: +49-7451-5386-70
D-72160 Horb E-Mail: info@tillwich-stehr.com
Germany
- 1.3 Emergency Call: +49-7451-5386-20 8.00 am until 5.00 pm UTC + 1h
+49-7451-3766 5.00 pm until 8.00 am UTC + 1h

2. Composition / Components

- 2.1 Substance: Preparation:
- 2.2 CAS No.: EWG No.:
- 2.3 Chemical Characterization: Fluorinated polymer in perfluorinated solvent.
- 2.4 Contains: Additives < 1 % , no dangerous components.

Classification according to the material guideline RL 67/548/EG, preparing guideline RL 1999/45/EG, restriction guideline RL 76/769/EG and national german right ChemG, GefstoffV., TRGS, latest version.
All components are listed in the EINECS.

3. Possibilities of Risk

- 3.1 Physical and chemical dangers: Not classified as a dangerous product.
- 3.2 Health dangers: Not classified as a dangerous product.
- 3.3 Dangers for the environment: May cause long-term adverse effects in the aquatic environment.

4. Precautions for First Aid

- 4.1 Contact with Skin: Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap.
- 4.2 Contact with Eyes: In case of contact with eyes, rinse immediately with plenty of water. If irritations occur seek medical advice.
- 4.3 Inhalation: If symptoms occur, remove person to fresh air. If symptoms continue, seek medical advice.
- 4.4 Ingestion: If swallowed, do not induce vomiting: If irritations occur seek medical advice.
- 4.5 Other Information:

5. Fire Fighting Procedures

- 5.1 Suitable Extinguisher: This product is not combustible. Cool container with spray of water.
- 5.2 Unsuitable Extinguisher:

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- 5.3 Special Endangering:
Do not empty contaminated water into drains, ground and lakes or rivers.
Remove contaminated water and soil according to local regulations.
- 5.4 Special Protection Equipment:
Wear respiratory equipment and full encapsulated suit impervious to hydrogen fluoride (HF).

6. Precautions for Uncontrolled Release

- 6.1 Personal Precautions:
Avoid contact with eyes, skin and clothing.
- 6.2 Environmental Protection:
Do not empty the product into drains, ground and waters.
- 6.3 Spill Response:
Cover with inorganic absorbent material. Collect spilled material in a closed container.
The material must be disposed of as hazardous waste.
- 6.4 Other Information:

7. Handling and Storage

- 7.1 Handling Information:
Use only in well-ventilated areas. Keep container tightly closed when not in use. Keep away from heat and hot surfaces. Do not smoke. Take precautions against static discharges.
- 7.2 Storage Information:
Keep only in the original container in a cool, well-ventilated place.
- 7.3 Demands upon Storage Place:
Store over collecting dishes which are impermeable for hydrogen fluoride (HF).
- 7.4 Storage with other Materials:
Keep away from inflammable materials.
- 7.5 Other Information:

8. Precautionary Information

- 8.1 Technical Precautions:
Remove gas/fumes/vapour or spray. Extract or filter foul air. Observe limiting values.
- 8.2 Limiting Values:
- | | |
|---|------------------|
| 8.2.1 AWG (threshold limit value): | not determinated |
| 8.2.2 BWG (biological threshold limit value): | not determinated |
- 8.3 Personal Precautions:
- 8.3.1 Breath Protection
In case of insufficient ventilation, wear suitable respiratory equipment.
- 8.3.2 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.

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Suitable gloves:

Material: Viton compound india rubber

Category: III

Thickness: 0,7 mm

Permeation time: Level 4 (> 120 min.)

The data were determined on laboratory conditions. The conditions in practical application can deviate from these, the data can be only a guideline assistance with the selection of the suitable gloves.

Contaminated gloves should be changed as fast as possible.

8.3.3 Eye Protection

Wear eye/face protection.

8.3.4 Body Protection

Wear suitable protective clothing.

8.4 Other Information:

Protective measures for chemicals must be noticed.

9. Physical and Chemical Data

- | | | | |
|------|---|---------------------------|------------------|
| 9.1 | Condition: liquid | Colour: colourless | Odour: odourless |
| 9.2 | Change of Condition: | | |
| | 9.2.1 Boiling Point: | 50 - 60° C (122 – 140° F) | |
| | 9.2.2 Pourpoint: | | |
| 9.3 | Flash Point: | not applicable | ISO 2592 |
| 9.4 | Ignition Point: | not applicable | DIN 51794 |
| 9.5 | Explosion Limits: | | |
| | lower: not applicable | upper: not applicable | |
| 9.6 | Vapour Pressure at 20°C (68° F): | about 300 mbar | |
| 9.7 | Density at 20°C (68° F): | 1,7 g/cm ³ | DIN 51757 |
| 9.8 | Solubility at 20°C (68° F) in H ₂ O: | insoluble | |
| 9.9 | pH value: | not applicable | |
| 9.10 | Viscosity at 20°C (68° F): | | |
| 9.11 | Other Information: | | |

10. Stability and Reactivity Data

- 10.1 Thermal Decomposition:
Above 200°C (392° F) toxic hazardous decomposition products may be set free.
- 10.2 Conditions to Avoid:
Keep away from heat and sources of ignition.
- 10.3 Materials to Avoid:
Reactions with finely divided active metals, alkali and alkaline earth metals are possible.
- 10.4 Hazardous Decomposition Products:
Hydrogen fluoride (HF) and perfluoroisobutylene (PFIB)

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10.5 Dangerous Reactions:

If the product is stored according to this instructions, no dangerous reactions are to be expected.

10.6 Other Information:

The vapours of this product are heavier than air. At high concentration, i.e. in smaller rooms or closed containers respectively, danger of suffocation due to displacement of atmospheric oxygen.

11. Health Information

- 11.1 Oral Toxicity (LD₅₀): > 5000 mg/kg (rat).
11.2 Skin Irritation: Short skin contact shows no skin irritation.
11.3 Skin Sensitization: No skin sensitization known.
11.4 Eye Irritation: Small eye irritaion may occur. Symptoms: redness, flood of tears.
11.5 Inhalation: The product is estimated to be only a little harmful by inhalation.
11.6 Ingestion: Small amouts of this product are not harmful if being swallowed.
11.7 Other Information:

12. Environmental Information

- 12.1 Acute Toxicity to Fish: LC₅₀ 96 h (pimephales promaleas): > 1000 mg/l.
12.2 Biodegradability: No decomposition.
12.3 Water Endangering Grade: WGK 2 water pollutant. Classification of the commission „valuation of water pollutants“.
12.4 Ozone depletion potential: 0
Perfluorinated solvent. This product does not contain chlorofluorocarbons.
12.4 Other Information: Endangering of drinking water if the product contaminates soil or water.

13. Waste Disposal Information

- 13.1 Product: Hazardous waste, recover or disposal according to local regulations.
13.2 Package: Contaminated package must be diposed as hazardous waste.
13.3 EWC - Code: (European waste category list)
07 01 03*, organic halogenated solvent.
13.4 Other Information: This product is to be delivered to a recycling or disposal after use. Any mixture of foreign matters or other kind of solvents is forbidden after use.

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14. Transport Information

14.1 General Information:

U.N. No.:
Packing group:

14.2 Regulations for Transport by Truck or Train: ADR / GGVSE
Classification: Not classified

14.3 International Regulations for Transport by Ship: IMDG / IMO
Classification: Not classified

14.4 National Regulations for Transport by Ship: GGVSee
Classification: Not classified

14.5 International Regulations for Transport by Plane: ICAO und IATA-DGR
Classification: Not classified

14.6 Other Information:
This product is no dangerous good.

15. Regulations

15.1 Specification according to directions of the EU:

This product is a preparation and needs not to be classified as a dangerous product.

R-sentences: 53 - May cause long-term adverse effects in the aquatic environment.

S-sentences: 16 - Keep away from sources of ignition - Do not smoke.
23 - Do not breathe fumes and vapour
51 - Use only in well ventilated areas

15.2 National German Regulations:

Regulations for inflammable products (TRBF): Not applicable

Regulations for hazardous products: (TRGS): Not applicable

Technical instructions on air quality control (TA-Luft): Organic substances, section 3.1.7 / appendix E, class III

16. Additional Information

Modification:

Position 3 „Possibilities of Risk“:

Data for the classification of the preparation according to RL 1999/45/EG.

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 special 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 is the responsibility of the user.