

Material Safety Data Sheet: (RL 91/155/EWG)

Date: 11/07/2008

1. Substance and Manufacturer Identification:

Trade Name: Fixodrop FK/BS Art. 8940
Material Type: Antispreeding agent - surface treatment

Company: The Swatch Group R&D Ltd.
Division Moebius
Hegenheimerstrasse 23
CH-4123 Allschwil 2
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2. Composition:

Substance: **Composition:**
CAS-Nr.: none
Chemical Characteristics: Fluoropolyester dissolved in Perfluorohexane
Contains: < 1 % Fluoropolyester
> 99 % Perfluorohexane

3. Possible Hazards:

No hazardous liquid for human beings and nature when used between 20 - 50 °C.
Attention: When heated up over 200 °C dangerous vapours may occur.

4. First Aid Measures:

Inhalation: Move to fresh air
Skin contact: Wash off with soap and water
Eye contact: Rinse thoroughly with water. Obtain medical attention if adverse symptoms arise.
Ingestion: Drink water. Affected persons are to be calmed down and consult a physician at once.

5. Fire Fighting Measures:

The fire fighting measures should be conform to the materials in the nearby surrounding.

Suitable extinguishers: none product is not inflammable
Unsuitable extinguishers: none
Special hazards: none (see point 10)
Special protective equipment: For firemen positive pressure self-contained breathing apparatus.
Hydrofluoricacid and Perfluoroisobutylene may occur through the thermal decomposition
Further information: Cool barrels with water

Product: Fixodrop FK/BS Art. 8940**6. Accidental Release Measures:**

Personel Protection:	Avoid skin and eye contact. Avoid inhalation of the vapours
Environmental Precautions:	If larger amount is spilt (> 10 liters) in closed room wear breathing protection
Cleaning Measures:	Larger amounts to be collected in a container and disposed in a manner prescribed in Federal, State and Local regulations
Further Information:	Keep away from ignition sources. Avoid contact with hot surfaces

7. Handling and Storage:

Handling:	Do not smoke when using the product.
Storage:	Store in original closed container at 16 - 22 °C
Further Information:	Store barrels in a collecting basin

8. Exposure Controls / Personal Protection:

Technical Protection:	When properly handled no special measures necessary
Exposure Limit:	None
Personel Protective Equipment:	
Breathing protections:	not necessary, do not breath in the vapours
Skin protection:	wear rubber gloves when in direct contact with the product
Eye protections:	not necessary, if danger of splash is likely wear protection glasses
Body protection:	not necessary
Further information:	please follow the usual hygienic measures

9. Physical and Chemical Properties:

Appearance: liquid	Colour: colourless	Odour: practically odourless
Boiling point:	56 °C	Tested after: DIN 51 751
Pour point:	- 90 °C	ISO 3016
Flash point:	not inflammable	DIN 51 755
Fire point:	---	DIN 51 794
Explosion limit:		
<i>lower</i>	NA	
<i>upper</i>	NA	
Vapor pressure (20 °C):	310 mbar	
Density (20 °C):	1.68 g/cm ³	DIN 51 757
Solubility 20 °C (in H₂O):	0.001 %	
pH-value:	NA	
Viscosity (20 °C):	~ 0.42 mm ² /s	DIN 51 562

Product: Fixodrop FK/BS Art. 8940**10. Stability and Reactivity:**

<i>Thermal Decomposition:</i>	None at proper usage. Product is stable.
<i>Conditions to avoid:</i>	Heating up over 200 °C
<i>Substances to avoid:</i>	Reactions with fine crushed reactive metals (alkaline and earthalkaline-metals) are possible. Dangerous polymerisation does not occur.
<i>Dangerous Decompositionproducts:</i>	CO, HF, Perfluoroisobutylene
<i>Dangerous Reactions:</i>	Stable. Dangerous polymerisation does not occur.

11. Toxicological Information:

<i>Acute Oral Toxicity (LD 50):</i>	> 5'000 mg/kg (rat)
<i>Primary Skin irritation:</i>	From skin contact no disadvantageous health dangers are to be expected. After usage the product might be polluted which could cause skin irritation. Symptoms can include reddening, itching and swelling.
<i>Skin sensitivity:</i>	Not known.
<i>Primary Eye irritation:</i>	There are no harmful effects expected after an eye contact. A significant eye irritation due to the product is not expected. After usage the product might be polluted which could cause eye irritation: Symptoms may include reddening, swelling, pain and flood of tears.
<i>Acute inhalation:</i>	There are no negative health consequences to be expected due to inhalation. Health consequences due to inhalation are expected only if the product is heated up to its decomposition temperature (200 °C).
<i>Swallowing:</i>	An exposition due to swallowing is unlikely as a way of ingestion. From a swallowing by mistake no negative consequences are expected. At usage pollution of the product may occur which could be poisonous when swallowed.

12. Ecological Information:

<i>Acute Fishtoxicity:</i>	LC50: 96 h (pimephales promelas): > 1000 mg/l
<i>Bioaccumulation:</i>	Not to be expected
<i>Biological Decomposition:</i>	Not decomposable
<i>Water hazard class:</i>	1, poor danger for water (self estimation)

13. Disposal Considerations:

<i>Product:</i>	Dispose off in a manner prescribed in Federal, State and Local regulations eventually take into consideration 'pollution due to usage'.
<i>Packing:</i>	Can be disposed like household products
<i>Wastedisposalcode:</i>	55223 - other halogenated organic solvents

Product: Fixodrop FK/BS Art. 8940**14. Transport Information:**

<i>UN-Nr.:</i>	-----
<i>RID / ADR:</i>	not classified
<i>GGVSee / IMDG-Code:</i>	not classified
<i>ICAO / IATA-DGR:</i>	not classified
<i>More Information:</i>	This product is not dangerous

15. Regulatory Information:

<i>Classification after European guidelines:</i>	No dangerous goods
<i>Hazard Symbol:</i>	Not required
<i>Risk phrases:</i>	none
<i>Safety phrases:</i>	S 2: Keep away from children S 21: Do not smoke when working with the product S 51: Use only in good 'ventilated' areas.

16. Other Informations:

The recommendations given in this material safety data sheet are put together from actual tests (if available), comparisons with similar products as well as informations on different products or components bought from other manufacturers.

The information given here refers only to the mentioned product. These informations are not accurate, if the product is beeing used together with other materials or in a working process. This report corresponds to our knowledge and experience at the given date. However, we do not give any warranty for faultlessness, reliability and completeness.