	<b>Material Safety Data Sheet</b> <b>HEXAFLUORINE®</b>	Approved by :	<b>BULLETIN</b>
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In accordance with 1907/2006/CE\* European directive  
In accordance with 1272/2008\* European directive

### 1. PRODUCT IDENTIFICATION

- 1.1. Trade name: **HEXAFLUORINE®**
- 1.2. Other names
- Chemical name / class: Aqueous solution containing amphoteric and chelating salts
- Synonyms : None
- 1.2. Utilization: **Washing of ocular or cutaneous chemical splashes of hydrofluoric acid (HF) and fluorides in acidic medium**
- 1.3. Supplier and manufacturer: **PREVOR**  
Moulin de Verville  
BP1  
F-95760 VALMONDOIS - FRANCE  
Téléphone : +33(0)1 30347676  
Fax : +33(0)1 30347670  
fds@prevor.com
- 1.4. Emergency telephone number: +33(0)1 30347676 (heures ouvrables – GMT +1)  
ORFILA ?

### 2. HAZARDS IDENTIFICATION

- 2.1. Hazardous components: Non hazardous mixture according to 1272/2008/EC regulation.
- 2.2. Specific hazards: No specific hazard.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Composition :

Chemical Name	CAS number	% w/w
Hexafluorine®	proprietary	proprietary
Water		balance

- 3.2. Impurities : No hazardous impurities.

### 4. FIRST-AID MESURES

This is a first-aid product designed to be used in cases of HF contamination. Exposure to this product will not cause additional injury. Victims of chemical exposure must seek advice from a specialist or receive medical attention. Take a copy of the label and MSDS of the product which caused the injury to physician or health professional with victim.

- 4.1. Inhalation: No specific hazards
- 4.2. Eye exposure: No specific hazards
- 4.3. Skin exposure: No specific hazards
- 4.4. Ingestion: No specific hazards
- 4.5. Note to physicians: This product is a class IIa medical device in Europe, and has been specifically designed to reduce or avoid injuries caused by an ocular or cutaneous splash of HF or its derivatives. This solution is not hazardous in itself. For victims of HF-type splash washed with Hexafluorine®, check that they have thoroughly been washed and apply current protocol of the physician in charge. If necessary, apply an HF antidote such as calcium gluconate.

### 5. FIRE-FIGHTING MEASURES

This product is non-flammable and non-combustible.


- 5.1. Suitable extinguishing media: Water spray, carbon dioxide, dry chemical, foam, any "ABC" class device
- 5.2. Unsuitable extinguishing media: None
- 5.3. Thermal decomposition into toxic substances : Carbon monoxide, carbon dioxide, nitrogen or carbon oxides, organic vapours.
- 5.4. Specific protective equipment for fire-fighters: In case of fire, wear Self-Contained Breathing Apparatus.

### 6. ACCIDENTAL RELEASE MEASURES


- 6.1. Personal precautions: No specific measures with Hexafluorine® in itself.
- 6.2. Environmental precautions: No specific precautions. Clean up the spilled non-hazardous liquid.

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6.3 Clean-up methods:		No specific precautions. This product can be absorbed, for example, with Trivorex®.	
<b>7. HANDLING and STORAGE</b>			
7.1. Handling:		No specific precautions.	
7.2. Storage:		Sterile product. Keep in the original container. This product has two year shelf life if kept sealed in its original packaging. When possible, store containers in a cool, dry location, away from sources of intense heat, or where freezing is possible.	
Technical measures / Conditions for safe storage:		Sterile product. Keep in the original container. This product has two year shelf life if kept sealed in its original packaging. When possible, store containers in a cool, dry location, away from sources of intense heat, or where freezing is possible.	
Storage incompatibility:		Product is stable in normal conditions of handling, use and storage.	
<b>8. EXPOSURE CONTROL / PERSONAL PROTECTION</b>			
8.1. Exposure Limit Value:		None (not available).	
8.2. Engineering controls:		No specific precautions in cases of simple Hexafluorine® exposure. Use adequate ventilation to prevent exposure to HF or its derivatives which contaminates the victim.	
8.3. Personal protection equipment:			
Respiratory protection:		None	
Hand protection:		None	
Eye protection:		None	
Skin/body protection:		None	
Specific hygiene measures:		None	
Protection of the responders:		None for Hexafluorine®. If treating a victim of a splash of HF or one of its derivatives, responders should wear adequate protection equipment in order to protect themselves from any contact with the chemical remaining on the victim.	
<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>			
Appearance(20°C):		Clear and colourless liquid	
Odour:		none	
Odour threshold:		Not applicable	
Melting point/ freezing point:		-1°C	
Boiling point:		100°C	
Flash point:		Non flammable	
Evaporation rate (water = 1) :		1	
Auto-ignition temperature:		Non flammable	
Upper/lower flammability limits:		Non applicable	
Specific gravity*:		1.046 g/cm <sup>3</sup>	
pH:		From 7.2 to 7.7	
Vapour pressure:		18 mmHg (20 °C)	
Solubility in water:		soluble	
Solubility:		insoluble in organic solvents	
Partition coefficient n-octanol/water:		100% soluble in water	
<b>10. STABILITE ET REACTIVITE</b>			
10.1. Chemical stability:		Non reactive and stable mixture.	
10.2. Hazardous reactions :		None (no hazardous polymerization, no decomposition, no condensation and no self-reactivity expected).	
10.2. Conditions to avoid:		Store in temperatures above 2°C. Do not expose DAP (autonomous portable shower) to temperatures above 50°C.	
10.3. Materials to avoid:		None	
10.4. Hazardous decomposition products:		Thermal decomposition from 100 °C: carbon monoxide and dioxide, nitrogen or carbon oxides, organic vapours.	
<b>11. TOXICOLOGICAL INFORMATION</b>			
11.1. Ingestion :		DL <sub>50</sub> (rat) > 2000 mg/Kg	
11.2. Local effects:			
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Skin contact: Non irritant (tested on rabbits)  
 Eye contact: Non irritant (tested on rabbits)  
 Sensitization to the product: Non sensitising (Magnusson & Kligman Method on Guinea Pig)  
 11.3. Mutagenicity: Non mutagenic (Ames test negative, for a similar molecule).

## 12. ENVIRONMENTAL INFORMATIONS

Hexafluorine® is not harmful if released into the environment.  
 Relative stability (at standard temperature and pressure): stable  
 Mobility: the product is liquid and soluble in water.  
 12.1. Ecotoxicity: No environmental hazard identified.  
 12.4 Biodegradability: Hexafluorine® is stable, but will decompose into simple salts in the environment.  
 12.3 Bioaccumulative potential: Hexafluorine® does not bio-accumulate (log Ko/w: 100 % soluble in water).

## 13. DISPOSAL PRECAUTIONS

Product disposal: No specific disposal measures. Recycle containers.

## 14. TRANSPORT INFORMATION

No transport regulation applies to the Hexafluorine® solution.  
 RID/ADR: Non regulated  
 IMDG: No specific regulation for Hexafluorine® in itself.  
 IATA: No specific regulation for Hexafluorine® in itself.

	DAP
UN or ID N°	UN 1013
Class	2,2
Shipping name	Carbon dioxide
Packing instruction	200

Other regulatory provisions:  
 RTDM R/F: Non regulated  
 Marine Pollutant: No

## 15. REGULATORY INFORMATION

Defined as a medical device by the 93/42/EC regulation. Product classified as non hazardous according to the – CLP (1272/2008/EC) – regulation, (Classification, Labelling and Packaging of chemicals) incorporating GHS (Globally Harmonized System) in Europe.

MSDS elaborated in accordance with REACH regulation 1907/2006/CE.

## 16. OTHER INFORMATION

Recommended utilizations :  
**Use Hexafluorine® immediately and optimally as primary action to wash eye and/or skin in cases of splashes of hydrofluoric acid or fluorides in acidic medium.**  
**In cases of splashes due to other chemicals (acids, bases, oxidizers, reducing agents or solvents), Diphoterine® washing is more adapted.**

This sheet complements the technical sheets but does not replace them. The information that is contained herein is based on the state of our knowledge related to the product concerned at the date of issue and is given in good faith. Moreover, the user's attention is drawn to the possible risks incurred by using the product for any other use than that for which it was intended.

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