

## IMPORTANT

To avoid serious injury following a Hydrofluoric Acid (HF) accident, immediate, safe, effective washing is vitally important.

The washing must:

- Remove excess HF
- Neutralise the remaining HF
- Stop further progression of HF already absorbed into the tissue

Developed by the PREVOR laboratory in France, Hexafluorine is a washing solution with hypertonic and chelating properties. Hexafluorine draws the acid from the skin to minimise potential damage.

For the eye



For the skin and Body



Response Kit



For further information



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# HEXAFLUORINE

## Emergency First Aid for Hydrofluoric Acid Eye & Skin Splashes

Hexafluorine is a specific washing solution for eye and skin hydrofluoric acid (HF) splashes and fluorides in an acid medium (e.g. boron trifluoride). Hexafluorine is a washing solution with hypertonic and chelating properties.

It thus has two mechanisms of action:

- The mechanical properties of water washing
- Additional neutralising and chelating properties which accelerate and optimise the decontamination process

Hexafluorine's hypertonicity prevents the chemical from penetrating the tissue and creates an inverse flow to pull the chemical to the tissue surface.

Its neutralising and chelating properties enable it to act both on corrosive (H+) and toxic (F-) components which are responsible for the destruction of skin or eye and causing cardiac arrest.

### Washing with Hexafluorine: Advantages compared to water

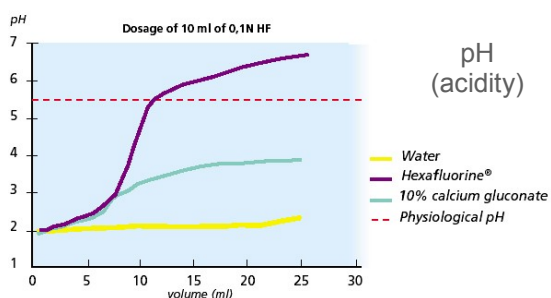


Figure 5 : Efficacy of Hexafluorine® on H<sup>+</sup> corrosive ions compared to water and a calcium gluconate solution

The pH indicates the measure of H<sup>+</sup> ion acidity. The greater the pH, the lesser the acidity. For a pH greater than 5.5, the product is not considered to be dangerous (physiological pH)

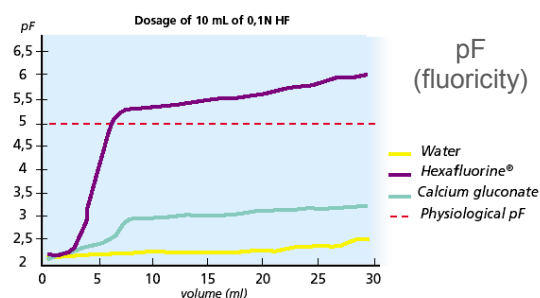


Figure 4: Efficacy of Hexafluorine® on free radical fluoride ions compared to water and a calcium gluconate solution

The pF indicates the measure of F<sup>-</sup> ions. The greater the pF, the lesser the residual quantity of free F ions. For a pF value greater than 5, the product is not considered to be dangerous (physiological pF)

## Case study of a hydrofluoric acid burn



A 45 year old worker, was splashed with a cutaneous 70% HF projection (face, neck, an arm and the abdomen, with a systemic effect which could be lethal), while he was checking a valve. Immediate washing was carried out with water at the accident site for 15 minutes, then with saline solution while being transported to the hospital. The patient received intravenous injections of Ca<sup>2+</sup> and Mg<sup>2+</sup> as well as local applications of Calcium Gluconate Gel.

**ONE YEAR OF LOST WORK TIME**

## Case study of a hydrofluoric acid burn

A 40 year old worker, was splashed while decanting 40% HF. This was an ocular and cutaneous splash and corresponds to 16.5% of the body surface (eyes, face, neck, thorax, with a risk of lethal systemic effect). Washing was immediately carried out with Hexafluorine on the eyes and the body at the site of the accident. The injured worker was washed a second time with Hexafluorine, at the company's infirmary by medical personnel. At the hospital, an absence of after-effects was noted, and there was no need for secondary care.



**NO LOST WORK TIME**