



HYDROFLUORIC ACID HF: HOW TO FIGHT IN CASE OF LEAK OR SPILL?



**A LEAK / A SPILL
= 3 PROBLEMS**



1. The liquid

During a leak or spill, the exposure of operators to hydrofluoric acid must be reduced to the minimum in order to limit the chemical risks.

Therefore, an HF spill must be managed **using an absorbent adapted to HF and that reacts in a controlled way with hydrofluoric acid.**



2. The vapors

Hydrofluoric acid, as long as it is not neutralized, continuously emits vapors of gaseous hydrogen fluoride, vapors that are deadly by inhalation.

Therefore, it is imperative to **stop these vapour emissions by neutralizing them at the source.**



3. The splashes and the contaminated equipment

A leak of hydrofluoric acid could contaminate the equipment around the accident. To prevent corrosion, it must be decontaminated.

After draining of the liquid, it is necessary to ensure that the area and the tools contaminated by the liquid and vapors are totally decontaminated, to make ready for operational use and secured.

THE SAFETY REFLEX



**ACICAPTAL® ACIDS
NEUTRALIZING ABSORBENT**

OR



**TRIVOREX® POLYVALENT
NEUTRALIZING ABSORBENT**



**LE VERT HF CHEMICAL
DECONTAMINATION SOLUTION**

So that a chemical accident does not become an injury

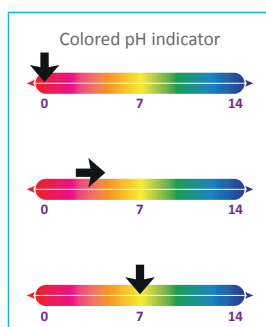
TRIVOREX® POLYVALENT NEUTRALIZING ABSORBENT

ACICAPTAL® ACIDS NEUTRALIZING ABSORBENT



TRIVOREX® and ACICAPTAL® neutralizing absorbents:

- ✓ Absorb the spilled liquid and stop it spreading
- ✓ Neutralize the corrosivity linked to the H^+ ion through an acid-basic reaction and indicate the end of the neutralization thanks to a colored indicator
- ✓ Reduce the danger of fluorides F^- by decreasing their availability and by forming less dangerous salts
- ✓ Stop the emissions of vapors at source by deteriorating the HF
- ✓ Are non-hazardous (non-toxic, non-irritant, non-flammable...)



HOW DOES IT WORK?

The H^+ and F^- ions are handled separately respectively with an acid-basic reaction and with a precipitation reaction.

These reactions are controlled in order to:

- ✓ Limit the rise in the temperature
- ✓ Control the progress of the neutralization: only a simple effervescence sign of CO_2 release
- ✓ Reactions are irreversible: salts created will not spontaneously form HF again



LE VERT HF CHEMICAL DECONTAMINATION SOLUTION

Le vert HF chemical decontamination solution is a non-hazardous liquid that permits to:

- ✓ Neutralize the corrosivity linked to the H^+ ion
- ✓ Chelate the residual fluorides F^-
- ✓ Decontaminate all the affected areas and equipment

The decontamination with Le vert HF chemical decontamination solution permits to restore the affected area and to prevent any further human contamination.



They recommend Trivorex® neutralizing absorbent and Le vert HF chemical decontamination solution in case of accident related to HF



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Toxicology Laboratory & Chemical Risk Management

Tel : (33) 1 30 34 76 76 – Fax : (33) 1 30 34 76 70
www.prevor.com – mail@prevor.com