

# HYDROFLUORIC ACID (HF)

## SYNONYMS

- HF
- HF acid
- fluoric acid
- hydrogen fluoride

## USES

Etching materials such as metal and glass, manufacturing and gas production

## HAZARDS

**Highly corrosive; causes severe and deep tissue burns**



Symptoms of exposure, such as pain, burns and blisters, may be delayed up to 24 hours depending on the concentration of HF.

### Acutely Toxic

Fluoride binds with calcium in the body possibly leading to hypocalcemia, which can be fatal.



Deep tissue destruction and calcium binding may continue after rinsing with water if neutralization is not provided.

## IN CASE OF EXPOSURE

(For all exposures, seek immediate medical attention)



Keep calcium gluconate in the work area (contact Occupational Medicine at 515-294-2056 to obtain calcium gluconate).



Eye Contact - rinse with water and seek immediate medical attention. Do not treat eyes with calcium gluconate gel.



All users must understand the hazards and protective measures.



Work in a chemical fume hood.



Avoid placing HF acid in glass or metal containers.



Work with a lab partner.



Wear a laboratory coat, an acid-resistant apron, and fully enclosed fluid-resistant shoes.



Use a face shield and splash goggles.



Choose gloves appropriate to the hazard using... $C_3D_2$

Chemicals  
Concentration  
Contact Type

Duration  
Dexterity



Inhalation - move to fresh air, seek medical attention.



Skin Contact - rinse with water for 5 minutes, then apply calcium gluconate continuously until medical help arrives (wear double layer of nitrile gloves to provide first aid).

Reviewed 2022

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