

Information

Hydrofluoric Acid Emergency Response

Applicability

This procedure applies to the University Community (administrators, faculty, staff, and students).

Administrative Authority

Senior Associate Vice President for Operations

Responsible Unit

Environmental Health & Safety

University of Louisville

Louisville, KY 40292

502-852-6670

dehsubm@louisville.edu

History

Revision Date(s):

Reviewed Date(s):

Categories

Reason for Procedure:

Special hazards are associated with exposure to hydrofluoric acid. Medical Care must be provided in the event of exposure even if the exposed area is small or the acid is diluted. Medical treatment must not be delayed.

Statement:

SKIN CONTACT

1. Move victim **immediately** under an emergency shower or other water source and flush affected area with large amounts of water. Remember to start

flushing *before* removing clothing. Speed and thoroughness in washing is critical.

2. Carefully remove all contaminated clothing *while continuing to flush* affected area with water.
3. Continue to rinse affected, unclothed area for 5 minutes. While victim is being rinsed, someone should:
 - Contact Public Safety at extension 502-852-6111.
 - State there has been a person exposed to hydrofluoric acid.
 - State their location.
 - Public Safety should arrange for subsequent transport to a medical facility.
 - Obtain a hydrofluoric acid MSDS and send it with victim to medical facility.
4. **Immediately after thorough washing**, start massaging 2.5% calcium gluconate gel into the affected skin area. *Neoprene or nitrile gloves should be worn (**not latex**)* while applying the gel to prevent possible secondary exposures. Liberally apply gel often and massage the burn site continuously.
5. While affected areas are being treated with calcium gluconate gel, the victim should be thoroughly examined for other burn sites that may have been overlooked.
6. Medical personnel should see the victim for follow-up care as soon as possible. During transport to medical facility or while waiting for emergency response, continue massaging burn sites with calcium gluconate gel. Try to keep burned areas elevated while in transport.
 - Contact Public Safety at extension 502-852-6111.
 - State there has been a person exposed to hydrofluoric acid.
 - State their location.
 - Public Safety should arrange for subsequent transport to a medical facility.
 - Obtain a hydrofluoric acid MSDS and send it with victim to medical facility.

EYE CONTACT

1. Move victim **immediately** to an emergency eyewash station and flush eyes gently with large amounts of water for at least 15 minutes. To aid in thorough cleansing, hold eyelids open and away from the eye while washing.
2. If the victim is wearing contact lenses, have the victim remove them if possible. Removal of contact lenses *should not delay or interrupt flushing*.
3. While victim's eyes are being flushed, someone should:
 - Contact Public Safety at extension 502-852-6111.

- State there has been a person with an eye exposure to hydrofluoric acid.
 - State their location.
 - Public Safety should arrange for subsequent treatment or emergency response.
 - Obtain a hydrofluoric acid MSDS and send it with victim to medical facility.
4. Medical personnel, preferably an eye specialist, should see the victim as soon as possible. During transport to medical facility, ice water compresses may be gently applied to the eyes.
5. **Do not use 2.5% calcium gluconate gel in eyes.**

- Contact Public Safety at extension 502-852-6111.
- State there has been a person with an eye exposure to hydrofluoric acid.
- State their location.
- Public Safety should arrange for subsequent treatment or emergency response.
- Obtain a hydrofluoric acid MSDS and send it with victim to medical facility.

INHALATION OF VAPORS

1. Move victim **immediately** to an area with fresh air. Keep victim calm and comfortable.
2. While victim is breathing fresh air, someone should:
- Contact Public Safety at extension 502-852-6111.
 - State there has been a person who has inhaled hydrofluoric acid vapor.
 - State their location.
 - Public Safety should arrange for subsequent treatment or emergency response.
 - Obtain a hydrofluoric acid MSDS and send it with victim to medical facility.
3. Medical personnel should see the victim as soon as possible.
- Contact Public Safety at extension 502-852-6111.
 - State there has been a person who has inhaled hydrofluoric acid vapor.
 - State their location.
 - Public Safety should arrange for subsequent treatment or emergency response.
 - Obtain a hydrofluoric acid MSDS and send it with victim to medical facility.

INGESTION

1. If the victim is conscious, have them **immediately** drink large amounts of water as quickly as possible. This may help to dilute the acid. Milk or an antacid

tablet taken with water may also help in providing an antidote effect.

2. While the victim is ingesting water, someone should:

- Contact Public Safety at extension 502-852-6111.
- State there has been a person who has ingested hydrofluoric acid.
- State their location.
- Public Safety should arrange for subsequent treatment or emergency response.
- Obtain a hydrofluoric acid MSDS and send it with victim to medical facility.

3. Medical personnel should see the victim immediately because HF ingestion is a life-threatening emergency.

- Contact Public Safety at extension 502-852-6111.
- State there has been a person who has ingested hydrofluoric acid.
- State their location.
- Public Safety should arrange for subsequent treatment or emergency response.
- Obtain a hydrofluoric acid MSDS and send it with victim to medical facility.

Questions? Call the University of Louisville Department of Environmental Health and Safety at 502-852-6670.

Definitions:

Hydrofluoric Acid: An acidic and extremely corrosive solution of the liquid hydrogen fluoride in water.

Forms/Online Processes:

<http://louisville.edu/dehs/chemical-safety/chemical-safety-files/laboratory-safety-manual>