

Receiving and Distribution of Hydrofluoric Acid

1. Receiving will accept the Hydrofluoric Acid (HF) box from the vendor.
2. **Receiving will call the dispatch office (x3132) to notify the dispatcher that a HF delivery has arrived.**
3. Receiving will place the package in the secondary containment drum and locate it in the Hazardous Materials storage area.
4. Receiving will check it into the Material Management System.
5. Receiving will transfer the paperwork to the Traffic Department.
6. Traffic Department will prepare an on-site bill of lading to include the following information:
 - The identification of the Hazardous Material
 - The location for delivery and the person it is to be delivered to
 - The weight, number of pieces, and the date prepared
7. **Traffic Department will call the Distribution Department to retrieve the HF from Warehouse 2. When the driver arrives, the Traffic Department will give the driver the bill of lading.**
8. Distribution driver will phone the Material Development Testing Lab (MDTL) (x3279 or 815.546.7548) personnel to inform them of the pending delivery and load the HF upon confirmation that MDTL is ready to receive.
9. Distribution Department will also phone the Communications Center (x3414) to inform them the HF is in transport and what truck it is on.
10. Distribution Department will transport the HF to the MDTL, attempt delivery, and get a signature of receipt. If the driver does not find an employee to sign for the package, he/she will contact the Dispatch Office and await further instruction.
11. After delivery, the driver will call the Communications Center (x3414) to inform them of the completed delivery.

****** If the driver is involved in an accident while transporting HF, He/she will ****** immediately vacate the scene, notify other personnel in close proximity of the scene to stay away, and call 3131 to inform security that he/she was involved in an accident while transporting HF.

Information about Hydrofluoric Acid

Hydrofluoric acid is a “weak” inorganic acid.

Primarily used in industrial processes: glass etching, metal cleaning, etc.

Can be found in common household products: rust removers, automotive detailing products, stain removers.

It is a clear colorless liquid, similar in appearance to water.

Has a distinct ability to dissolve glass.

May form explosive levels of hydrogen upon contact with many metals.

It will attack glazes, enamels, pottery, concrete, and leather.

HF is one of the most dangerous acids known. It can cause external burn damage to skin tissue like other acids, but it will also be absorbed into the body and cause tissue damage internally and affect your calcium and magnesium inventory, which can cause cardiac arrhythmia, then death. Lower concentrations can cause erythema (skin redness) and pain may be delayed up to 24 hours, often not reported until tissue damage is extreme. Erythema and pain may be delayed from 1 to 8 hours, and is often not reported until tissue damage is extreme. Higher concentrations (greater than 50%) produces immediate burning, erythema, and tissue damage.

The Hydrogen Fluoride molecule is so mobile that it may easily pass through the skin. Because Fluorine has an extremely high affinity for Calcium, bones will be attacked, and this may result in hypocalcaemia. There may be no pain immediately after the burn, leading the injured person to believe that they are not in danger.

Immediately remove all exposed clothing taking necessary precautions to prevent self-exposure (wear gloves) while washing all exposed areas with copious amounts of water.

Hydrofluoric Acid is dangerous because it can pass through the skin and affect the bones without the host knowing that the HF molecule has entered their body. True False

Hydrofluoric acid is a strong acid. True False

HF is primarily used in household products. True False

HF is similar in appearance to:

Oil
Water
Tea
Orange Juice

HF exposure can result in a condition know as:

Hypoblastphoma
Hypocalcaemia
Distropia
Moscollum