

Manual Section 3	Issue Date 03/17/16	Revision Date 01/01/24	Policy Number LLCP-029
	Hydrofluoric Acid		

Purpose

This document will provide guidance and safe work practices for Company employees that are potentially exposed to Hydrofluoric Acid (HF). All employees shall adhere to the work practices identified.

Scope

All LLC Companies including, Blanchard Industrial, LLC, GIS Engineering, LLC, Grand Isle Shipyard, Inc., and GWIS, Mack Steel, NuWave, Sun Industries, Valvemax, Discovery Industries, Inc.; hereafter identified as “Company”.

Information and Training

Employees who handle hydrofluoric acid shall be trained on the hazards of HF and what to do in the event of an exposure or a spill. A Safety Data Sheet (SDS) on HF shall always be kept in the immediate work area where HF is used. Safety Data Sheets are readily available upon request 24 hours a day and shall be accessible by contacting the Corporate HSE department or utilizing the Corporate MSDSONline account.

The SDS together with this policy shall be used to train employees on the hazards of HF. However at a minimum, employees shall receive an overview of the characteristics and hazards of HF; including medical treatment of burns, possible locations of the chemical on a Customer site and actions during the unlikely event of a release.

Only authorized employees shall enter HF areas. Areas containing HF such as a HF alkylation unit, shall be distinctively marked at all points of entry. Markings should warn that HF is present, access is strictly limited, and that protective clothing is required.

Personal Protective Equipment

PPE shall be provided for employees working with/around HF.

Inspection of PPE

All protective equipment, including new clothing, should be inspected per the manufacturer’s suggested guidelines before use. Company employees should follow procedures developed for inspection, testing, and replacement of protective clothing and equipment. Testing of gloves and inspection of boots should be done before each use.

Eye Protection

Chemical goggles together with a face shield shall be used when handling concentrated HF.

Body Protection

Wear a buttoned coat with a chemical splash apron made out of natural rubber or neoprene. Never wear shorts or open-toed shoes when handling HF or other corrosive chemicals.

Gloves

Typically, medium or heavyweight nitrile or natural rubber gloves are worn when working with HF. Always consult the manufacturer’s glove selection guide when selecting a glove for HF. A second pair of disposable nitrile gloves shall be worn under the gloves for protection against leaks. Gloves that have not been contaminated with HF may be disposed of in the common trash. If gloves become contaminated with HF, remove them immediately, thoroughly wash your hands with soap and water for 15 minutes, and check your hands for any sign of contamination. Gloves contaminated with any amount of HF shall be disposed of as HF waste.

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Care and Maintenance of PPE

Designated areas and facilities should be provided for neutralization, cleaning, and storage of all protective clothing. Since protective clothing is acid resistant, not acid proof, it should be washed and neutralized immediately after any contact with HF.

Ventilation

All work with HF shall be done in accordance with the SDS and the Corporate Respiratory Protection policy. Appropriate respirators and cartridges shall be made available prior to commencement of work.

Storage

Store all HF and HF waste in labeled chemically compatible containers (e.g., polyethylene or Teflon®). Glass, metal, and ceramic containers are not compatible with HF. HF should never be stored with incompatible chemicals such as ammonia or other alkaline materials. Always place HF on a low protected shelf or other location where it will not be accidentally spilled or knocked over.

Safe Work Practices

- Avoid working alone and after hours when you are using HF, if possible.
- Do not eat, smoke, drink or apply cosmetics where HF is handled.
- Wash hands thoroughly with soap and water after handling HF.

Chemical Waste

HF waste shall be placed in a chemically compatible container (e.g. polyethylene or Teflon®) with a sealed lid and clearly labeled. Do not store HF waste in glass or metal containers. Waste shall be disposed of in accordance with the Company's Waste Management Policy.

Emergency Procedures

All exposure to or contact with HF shall receive immediate first aid and medical evaluation even if the injury appears minor or there is no sense of pain. HF can produce delayed effects and serious tissue damage without necessarily producing pain. Company Supervisors are trained in first aid and have been made aware of the specific health effects of HF therefore employees should report exposure immediately.

Due to the possibility of exposure, first aid kits suitable for treating HF should be available in areas where HF is present. In the event of an HF exposure, immediately start first aid procedures to avoid HF burns or other permanent damage. Once first aid has been started and the employee is presumed to be stable, contact the Corporate HSE department.