

More About Hydrogen Fluoride

The Hydrogen Fluoride Panel of the American Chemistry Council (ACC) was formed in 1988 with a mission of promoting the safe manufacturing, use, handling, transportation, emergency response, and disposal of Anhydrous Hydrogen Fluoride and Hydrofluoric Acid (collectively referred to as HF).

The Panel's activities are conducted in conformance with ACC's Responsible Care® Program and codes of practice. The Panel addresses industry issues on process safety, health, environmental impacts, and governmental regulation of HF.

HF can be handled safely without adverse risks to humans or the environment if used and handled in accordance with applicable risk management practices. Additional information on HF is available from applicable Material Safety Data Sheets and the members of the Panel, and these sources should be consulted before using HF.

HF is a critical component in the production of gasoline and in producing fluorine-containing materials such as refrigerants, pharmaceutical intermediates and fluoropolymers. Other uses include metals manufacturing, glass etching and polishing, stainless steel pickling, semiconductor preparation and various applications in the chemical and specialty metal production industries.

Product Stewardship

In addition to implementing the principles of ACC's Responsible Care Program, the Panel regularly shares information to enhance operational and emergency response practices. Members of the Panel also participated in the development of guidelines under the Hydrogen Fluoride Industry Practices Institute (will insert link to HFIPI when website is up). These guidelines cover:

- Personal protective equipment for HF service;
- Bulk storage and handling of anhydrous HF;
- Tank car and cargo trailer unloading of anhydrous HF;
- Bulk storage and handling of 70% and 49% aqueous HF;
- Tank truck unloading of 70% aqueous HF;
- New Tank Car construction for anhydrous HF;
- New Tank Car construction for aqueous HF;
- New Cargo Tank Trailer construction for anhydrous HF;
- New Cargo Tank Trailer construction for aqueous HF;
- New ISO Tank Container construction for anhydrous HF;
- Materials of construction for anhydrous HF; and
- Materials of construction for aqueous HF.

Transportation and Emergency Response

The Panel's HF Mutual Aid Task Group is open to all companies recognized as manufacturers, transporters or users of HF that enter into a Mutual Aid Agreement. The HF Mutual Aid Task Group addresses industry issues related to emergency response and mutual aid assistance for HF. The Task Group's objectives are to:

- Provide emergency response and mutual aid support for any HF transportation incident that may occur, and
- Share HF emergency response experience.

The Task Group established a Mutual Aid Network which provides for cooperative emergency response by member companies in the event of a transportation incident. Emergency response assistance is coordinated through [CHEMTREC®](#). CHEMTREC offers shippers and carriers of hazardous materials a cost-effective way to comply with Federal DOT Regulations, while reducing risk and promoting [Responsible Care](#). In August, 2007, the Task Group published "Emergency Response Guidelines for Anhydrous Hydrogen Fluoride". The guidelines provide information on the properties of HF and general information on design, operation, maintenance, training, and emergency response practices.

In 2011, the Panel completed a study of transportation safety of anhydrous HF. The study indicated that between 1980 and 2010, a period of 31 years, approximately 7.4 million tons of HF were transported by rail tank car and highway tank trailers from producers in the US, Mexico and Canada to various consumers. The majority of this volume (approx. 93%) was shipped by rail with the balance (approx. 7%) by truck. During this 31 year period no fatal or serious injuries to the general public were noted.

Medical/Toxicology Information

The Panel maintains a Medical and Toxicology Task Group to investigate, develop, and exchange the latest medical and toxicological knowledge concerning HF. It disseminates that knowledge to ensure that workers and the public who might be exposed to HF receive appropriate and timely medical intervention. Members of the Task Group exchange information regarding decontamination procedures, first aid and medical treatment, and toxicology information specific to HF. The Task Group continues to evaluate the potential use of new HF treatments and procedures, and monitors and exchanges medical and government documents. The Task Group is currently preparing easily usable medical and first aid information related to HF exposures with an estimated completion date in the second half of 2013.

Further Information

Panel Activities- Bill Gullledge. Media- Kathryn St. John