Halocarbon Products Corp

Product Stewardship Summary:

This Product Stewardship Summary is intended to provide a general overview of the chemical substance. The information on the Summary is basic information and is not intended to provide emergency response, medical, or treatment information. In-depth safety and health information can be found on the product’s Safety Data Sheet (SDS).

Chemical Identity:  Trifluoroacetyl Chloride CAS# 354-32-5

Other Names: TFAC

Product Overview: Trifluoroacetyl Chloride is a liquefied gas with the formula CF₃COCl. This compound has been used in the production of pharmaceutical and agricultural chemicals, as well as in many other specialized applications.

Physical and Chemical Properties: TFAC in appearance is colorless and exhibits a pungent and distinct odor. It reacts strongly with water. It’s acidic in nature so contact with materials such as alcohols amines and bases should be avoided. It has a boiling point of -28 °C and a specific gravity of 1.38. TFAC contains a small amount of phosgene, which is an inadvertent by-product of the manufacturing process.

Health Information:

Acute: TFAC is poisonous and is corrosive to the eyes and the respiratory system. Contact with moist skin will form corrosive and irritating acids.

Chronic: May cause sensitization of susceptible persons.

Environmental Information:

Environmental Fate Information: TFAC reacts violently with water to form trifluoroacetic acid and hydrogen chloride.

Aquatic and/or Terrestrial Toxicity: TFAC discharged into water will affect pH and harm aquatic organisms.
Exposure Potential:

**Workplace:** Workers handling TFAC should wear personal protective equipment. Contact with skin, eyes and clothing must be prevented. Workers handling TFAC should do so only in a closed system or be provided with appropriate exhaust ventilation at machinery. In case of insufficient ventilation suitable respiratory equipment must be worn. Contents under pressure, do not puncture or incinerate. It may explode if heated.

**Consumer:** Halocarbon Products Corp does not sell TFAC to the general public.

**Environmental Releases:** TFAC leaks or spillage should be prevented if all possible. It should not be released into the environment or allowed to contaminate ground water systems. Care should be taken to prevent TFAC from entering spill drains.

Risk Management:

**Workplace:** Risk management of TFAC can be accomplished by storing and using containers that are dry, tightly closed and kept in cool, well ventilated places. Containers should always be labeled properly. Contact with moisture of any kind must be controlled or avoided.

**Environmental:** TFAC reacts with water to form trifluoroacetic acid and hydrogen chloride. It is unlikely that bioaccumulation will occur due to product’s properties.

**Product Stewardship Programs:** Halocarbon Products Corp. is proud to have been a pioneer in the field of halogenated hydrocarbons since its inception in 1950. Halocarbon Products Corp. established a Customer Survey and Support program several years ago and continues to offer support to its customers.

**Conclusion Statement:** TFAC has been used in the production of pharmaceutical and agricultural chemicals, as well as in many other specialized applications. With the proper training, administrative and engineering controls in place, TFAC can be used safely under recommended conditions.

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**Date:** 10/16/2012  
Reviewed 02/16/2016