西亚试剂® Xiya Reagent 说明书

www.xiyashiji.com

化 学 品 安 全 技 术 说 明 书

填表时间 2019-12-30

打印时间 2025-07-04

MSDS标题

HYDROGEN FLUORIDE/ PYRIDINE MSDS报告

产品标题

氟化氢吡啶

CAS号

32001-55-1

化学品及企业标识

PRODUCT NAME

HYDROGEN FLUORIDE/ PYRIDINE

NFPA

Flammability	0
Toxicity	4
Body Contact	4
Reactivity	2
Chronic	0

SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4

PRODUCT USE

Convenient form of anhydrous hydrogen fluoride, stable up to 50 deg. C.. has been used for the preparation of beta- fluoramines from amino- alcohols, and for the fluorination of acetylenes.

SYNONYMS

C5-H5-N(HF)x, HF-pyridine, "pyridine hydrofluoride", "pyridinium poly(hydrogen fluoride)"

CANADIAN WHMIS SYMBOLS

EMERGENCY OVERVIEW

RISK

Causes severe burns.
Risk of serious damage to eyes.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

The material can produce severe chemical burns within the oral cavity and gastrointestinal tract following ingestion. The material is considered to be harmful by all exposure routes. Fluoride causes severe loss of calcium in the blood, with symptoms appearing several hours later including painful and rigid muscle contractions of the limbs. Cardiovascular collapse can occur and may cause death with increased heart rate and other heart rhythm irregularities. The brain and kidneys may be affected. Other toxic effects include headache, increased saliva output, jerking of the eyeball and dilated pupils, lethargy, stupor, coma and rarely, convulsions.

EYE

The material can produce severe chemical burns to the eye following direct contact. Vapors or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage. Eye contact is extremely painful and may cause rapid corneal damage. The vapour when concentrated has pronounced eye irritation effects and this gives some warning of high vapour concentrations. If eye irritation occurs seek to reduce exposure with available control measures, or evacuate area. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

The material can produce severe chemical burns following direct contactwith the skin. Bare unprotected skin should not be exposed to this material. Solutions of hydrofluoric acid, as dilute as 2%, may cause severe skinburns. Fluorides are easily absorbed through the skin and cause death of soft tissue and erode bone. Healing is delayed and death of tissue may continue to spread

beneath skin. The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration. Solution of material in moisture on the skin, or perspiration, may markedly increase skin corrosion and accelerate tissue destruction.

INHALED

Inhalation may produce severe health damage*. If inhaled, this material can irritate the throat andlungs of some persons. Acute effects of fluoride inhalation include irritation of nose and throat, coughing and chest discomfort. A single acute over-exposure may even cause nose bleed. Pre-existing respiratory conditions such as emphysema, bronchitis may be aggravated by exposure. Occupational asthma may result from exposure. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.

CHRONIC HEALTH EFFECTS

Considered toxic by all exposure routes. Principal routes of exposure are usually by skin contact, eye contact with the material and inhalation of vapor. Repeated human exposures to hydrogen fluoride 6 hours/day for 10 - 50 days at concentrations as high as 4.7 ppm were tolerated without severe adverse reaction. At concentrations exceeding 3 ppm researchers noted burning and irritation of the eyes and nose and burning of the skin. Three subjects who inhaled approximately 3 ppm had average urinary excretions of 6.7-9.4 mg fluoride/day. One epidemiological study was able to demonstrate that there was no significant change in pulmonary function resulting from occupational exposure to average concentrations of 1.02 ppm hydrogen fluoride. A further study indicated a threshold for minimal increases (Grade 1) in bone density (fluorosis) as less than 3.38 mg/m3 fluoride (4.3 ppm). Grade 1 fluorosis resulted in no medically recognised disability.