SAFETY DATA SHEET

Hydrogen fluoride-pyridine (70% HF)

NAME: Hydrogen fluoride-pyridine (70% HF)
CAS#: [62778-11-4]
CAT#: 002844
For R&D use only.

HAZARDS IDENTIFICATION

GHS Classification
Acute toxicity, oral (Category 2)
Acute toxicity, dermal (Category 2)
Skin corrosion/irritation (Category 1A)
Serious eye damage/eye irritation (Category 1)
Hazardous to the aquatic environment, acute hazard (Category 3)

GHS Label elements, including precautionary statements

Pictograms

Signal Word: Danger

Hazard Statement(s)
H300 Fatal if swallowed
H310 Fatal in contact with skin
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage
H402 Harmful to aquatic life
EUH014 Reacts violently with water

Precautionary Statement(s)
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
**FIRST AID MEASURES**

**In case of eye contact**
Immediately flush eyes with running water for at least 15 minutes while keeping eyes open. Seek medical attention.

**In case of skin contact**
Wash thoroughly with soap and plenty of water. Seek medical attention.

**If inhaled**
Remove victim from source of exposure to fresh air. If breathing is difficult, administer oxygen. Seek medical attention.

**If swallowed**
Do not induce vomiting. Give water to victim to drink. Seek medical attention.

**FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**
Use carbon dioxide, dry chemical powder, alcohol-resistant or polymer foam.

**Special protective equipment for fire-fighters**
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**Unusual fire and explosion hazards/decomposition of product**
Emits toxic fumes under fire conditions.

**ACCIDENTAL RELEASE MEASURES**

**Personal precautions**
Use personal protective equipment. Avoid breathing fumes, vapors, mists or gas. Ventilate area. Remove all sources of ignition. Evacuate personnel.

**Environmental precautions**
Prevent further leakage if safe to do so.
Methods and materials for containment and clean up
Absorb spills on sand or vermiculite and place in closed container for disposal.

HANDLING AND STORAGE

Precautions for safe handling
Avoid prolonged use. Avoid all direct contact with material. Do not breathe dust or vapor. Wash thoroughly after handling.

Precautions for safe storage
Keep container tightly closed. Store in a cool, dry, well-ventilated area. Moisture sensitive. Keep cold.

EXPOSURE CONTROL/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Eye/face protection
Wear protective safety goggles or face shields tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Hand/skin protection
Avoid all direct contact with product. Wear chemical-resistant gloves. Wear protective clothing and boots. After contact with skin, wash immediately.

Respiratory protection
Ensure adequate ventilation during use. Approved respiratory equipment must be used when airborne concentrations are unknown or exceed the exposure limits.

PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Appearance</td>
<td>Light brown liquid</td>
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<tr>
<td>Odour</td>
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<tr>
<td>Odour Threshold</td>
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<td>Melting point/Freezing Point</td>
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<td>Boiling Point</td>
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<tr>
<td>Flash Point</td>
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<tr>
<td>Evaporation Rate</td>
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<td>Flammability (solid, gas)</td>
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<td>Upper/Lower Flammability or Explosive limits</td>
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<tr>
<td>Auto-ignition temperature</td>
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</tbody>
</table>
STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
Reacts violently with water

Conditions to avoid
Moisture.

Incompatible materials
Strong oxidizing agents, strong acids, and strong bases.

Hazardous decomposition products
May evolve carbon monoxide, carbon dioxide, nitrogen oxides, and hydrogen fluoride.

TOXICOLOGICAL INFORMATION

Acute toxicity
Skin corrosion/irritation
Causes severe skin burns and eye damage

Serious eye damage/eye irritation
Causes serious eye damage

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
no data available

Reproductive toxicity
no data available

STOT-single exposure
no data available

STOT-repeated exposure
no data available

Aspiration hazard
no data available

Exposure Routes
Harmful to skin, eyes, and respiratory system.
Toxic if swallowed.
Hydrogen fluoride-pyridine (70% HF)

Signs and Symptoms of Exposure
Symptoms of fluoride overexposure may include salivation, nausea, vomiting, abdominal pain, fever, and labored breathing. Fluoride ion can reduce serum calcium levels possibly causing fatal hypocalcemia. Prolonged exposure to fluoride dusts, vapors, or mists results in perforation of the nasal septum. Chronic effects include excessive calcification of the bones, ligaments, and tendons. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

Target Organs
Liver, Kidney, Bone marrow, Nerves

To the best of our knowledge, the health hazards of this material have not been fully investigated.

ECOLOGICAL INFORMATION

Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

DISPOSAL CONSIDERATIONS

Dissolve in or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all Federal, State and local laws.

TRANSPORT INFORMATION

DOT
Hydrofluoric acid
8, 6.1
UN1790 I

IMDG
Hydrofluoric acid
8, 6.1
UN1790 I
EMS-No: F-A, S-B
Marine Pollutant: No
REGULATORY INFORMATION

**SARA 302 Components**
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**
SARA 313: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.

**New Jersey Right to Know Components**
This product may contain a chemical on the New Jersey Right to Know Components List.

**California Prop. 65 Components**
This product does not contain a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

OTHER INFORMATION

Version : 1.3
Revision Date : 5/14/2019

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Oakwood shall not be held liable for any damage resulting from handling or from contact with the above product.