## 1. Product and Company Identifaction



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|---|---|
| Product Name | **RXSOL-19-1322** |
| Product Type | **Hydrofluoric acid 70** |

**Company Details:**

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

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|---|---|
| Phone | +91 22 65113333 / 5555 / 9999 / 27611360 |
| Fax | +91 22 2781 1318 :::AOH :0091 9821214367 |
| Email | mail@rxmarine.com , sales@tankcleaner.net/ |
| Website | www.rxmarine.com/ , www.tankcleaner.net/ |


## 2. Composition / Information on ingredients



| Ingredient | CAS No | Percent | Hazardous |
|---|---|---|---|
| Hydrogen Fluoride | 7664-39-3 | 70% | Yes |
| Water | 7732-18-5 | 30% | No |

## 3. Hazards Identification



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| Inhalation | Severely corrosive to the respiratory tract. May cause so lung congestion/inflammation. |
| Ingestion | Corrosive. May cause sore throat, abdominal pain, diarr tract, and kidney dysfunction. |
| Skin Contact | Corrosive to the skin. Skin contact cause not be immediately apparent or painful. S hours or longer. The fluoride ion readily p tes the skin causing destruction of deep t |
| Eye Contact | Corrosive to the eyes.Symptoms of redne permanent eye damage may occur. |
| Chronic Exposure | Intake of more than 6 mg of fluorine per day may result Hypocalcemia and hypomagnesemia can occur from abs |
| Aggravation of Pre-existing Conditions | Persons with pre-existing skin disorders, eye problems, may be more susceptible to the effects of this substance |

## 4. First Aid Measures



**Ingestion:** If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Skin Contact:** FOR ACID BURNS TO THE BODY: 1) Remove the victim from the contaminated area and immediately place him under a safety shower or wash him with a water hose, whichever is available. 2) Remove all contaminated clothing. 3) Keep washing with large amounts of water for a minimum of 15 to 20 minutes. 4) Have someone make arrangements for medical attention while you continue flushing the affected area with water.

5) a) If available, after thorough washing, the burned area should be immersed in a solution of 0.2% iced aqueous Hyamine 1622 or 0.13% iced aqueous Zephiran Chloride. If immersion is not practical, towels should be soaked with one of the above solutions and used as compresses for the burn area. Ideally compresses should be changed every 2 minutes. 5) b) An alternative treatment to 5a is for the physician to inject sterile 10% aqueous calcium gluconate solution subcutaneously beneath, around, and in the burned area. Initially use no more than 0.5 cc per square centimeter and do not distort appearance of skin. If pain is not completely relieved, additional treatment is indi-cated. 6) Seek medical attention as soon as possible for all burns regardless of how minor they may appear initially. Hyamine 1622 is a trade name for Tetracaine Benzethonium Chloride, Merck Index Monograph 1078, a quaternary ammonium compound sold by Rohm & Haas,Philad -elphia. Zephiran Chloride is a trade name for Benzalkonium Chloride, Merck Index Monograph 1059, also a quaternary ammonium compound, sold by SANOFI Winthrop Pharmaceutical, New York, NY.

**Eye Contact:** FOR ACID IN THE EYES: 1) Irrigate eyes for at least 30 minutes with copious quantities of water, keeping the eyelids apart and away from eyeballs during irrigation. 2) Get competent medical attention immediately, preferably an eye specialist. 3) If a physician is not immediately available, apply one or two drops of 0.5% Pontocaine Hydrochloride solution. 4) Do not use oily drops or ointment. Place ice pack on eyes until reaching emergency room.
Note to Physician: For burns of large skin areas, (greater than 25 square inches), for ingestion and for significant inhalation exposure, severe systemic effects may occur. Monitor and correct for hypocalcemia, cardiac arrhythmias, hypomagnesemia and hyperkalemia. In some cases renal dialysis may be indicated. For certain burns, especially of the digits, use of intra-arterial calcium gluconate may be indicated. Treat as chemical pneumonia. Monitor for hypocalcemia, 2.5% calcium gluconate in normal saline by nebulizer or by IPPB with 100% oxygen may decrease pulmonary damage. Bronchodilators may also be administered. Medical Surveillance: Provide phycical examinations of exposed personnel every six months including fluoride determinations in urine, studies of liver and kidney function: chest X-ray, annually. Protect from exposure those individuals with diseases of kidneys, liver, and lung.

Hazardous Industrial Chemicals Safety Manual). AN ALTERNATIVE FIRST AID PROCEDURE: Hydrofluoric Acid (HF) is a highly corrosive and toxic acid, even in a dilute form. It can severely damage the skin and eyes causing severe burns which are extremely painful. Additionally, the vapor from anhydrous HF or its concentrated solutions can cause damage to skin, eyes and the respiratory system. HF differs from other strong acids in that it not only causes surface burns but rapidly penetrates the skin, even in dilute solution, and causes destruction of underlying tissue and even bone by the extraction of Calcium. For this reason, washing the burn with water is not sufficient. A neutralizing agent which will also penetrate the skin is required. The effect of HF, i.e. onset of pain, particularly in dilute solutions, may not be felt for up to 24 hours. It is important, therefore, that persons using HF have immediate access to an effective antidote even when they are away from their work place in order that first aid treatment can be commenced immediately while the patient seeks medical advice. HOW TO TREAT HYDROFLUORIC ACID BURNS: It has been conclusively shown (references 1,2,3 and 4 below) that flushing the affected area with water for one minute and then massaging HF Antidote Gel into the wound until there is a cessation of pain is the most effective first aid treatment available. HF Antidote Gel contains Calcium Gluconate which combines with HF to form insoluble Calcium Fluoride, thus preventing the extraction of Calcium from the body tissue and bones. HF Antidote Gel is available in 25g tubes, and since the effects of the dilute acid may not be apparent for some hours, we recommend that any person in contact with HF should carry, or have access to a tube of HF Antidote Gel at all times; ideally with one tube at the work place, one on the person and one at home. For safety's sake, we believe that HF Antidote Gel should be issued to all employees who may come into contact with HF. EYE INJURIES: Irrigate the affected part immediately with copious amounts of cold water. Urgent medical advice must be sought. HF Antidote Gel is NOT for use in the eye. It is imperative that any person who has been contaminated by HF should seek medical advice even when the treatment by HF Antidote Gel has been applied.

## 5. Fire-fighting Measures



Fire: Not considered to be a fire hazard. Fire may produce poisonous or irritating gases.
Explosion: Violent exothermic reaction occurs with water. Sufficient heat may be produced to ignite combustible materials. Reacts with metals forming flammable Hydrogen gas. Fire Extinguishing Media: Keep upwind of fire. Use water or carbon dioxide on fires in which Hydrofluoric Acid is involved. Halon or foam may also be used. In case of fire, the sealed containers can be kept cool by spraying with water.Special Information: In the event of a fire, wear full protective clothing and NIOSH- approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Avoid getting water in tanks or drums; water can cause generation of heat and spattering. In contact with air, the acid gives off corrosive fumes which are heavier than air.

## 6. Accidental Release Measures



Personal Precautions
- Wear protective clothing as per section 8

Environmental Precautions
- Do not allow to enter public sewers and watercourses

Immediate Actions
- Contain spillage by any means possible

Clean Up Actions
- Absorb spillage in inert material and shovel up

- Ventilate the area and wash spill site after material pick-up is complete

Special Precautions

- Wear protective clothing as per section 8

## 7. Handling and Storage



Handling

- The usual precautions for handling chemicals should be observed
- See Section 8
- Eyewash bottles should be available

Storage

- Keep only in the original container in a cool, well ventilated place (S3/9/49)
- Protect from frost

## 8. Exposure controls and personal protection



Exposure Limits

- There are no recommended or established controls for this product

Exposure controls

- No special ventilation is required unless the product is used in a spray form

Occupational exposure controls

- Wear suitable protective clothing, including eye/face protection and gloves (plastic or rubber are recommended)
- During fumigation/spraying wear suitable respiratory equipment (S42)

## 9. Physical and chemical properties



- Odour: Odourless
- Appearance: Clear Liquid, pale yellow, soluble in water
- pH 10.5 - 11.5 at 0.1 % concentration
- Boiling point >100 °C at 760 mm /Hg
- Vapour pressure - not known
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