

1. Product and Company Identification

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Product Name Hydrofluoric Acid 60
Part Number RXSOL-20-1107-040

Company Details:

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

Branch : Sikka, Kandla, Dahej , Hazira, JNPT, Goa, Mngalore, Cochin, Tuticorin, Chennai, Kakinada, Vizag, Paradip, Haldia, Kolkata, Fujairah

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2. Composition / Information on ingredients

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| Name of Substance | Cas Number | Weight |
|-------------------|------------|--------|
| Hydrogen fluoride | 7664-39-3 | 40-60 |
| Water | 7732-18-5 | 40-60 |

3. Hazards Identification

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| Signal word | Danger |
| Hazard statement(s) | May be corrosive to metals Causes severe skin burns and eye damage May cause respiratory irritation Fatal if swallowed, in contact with skin or if inhaled. |
| Precautionary statement(s) | Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Do not get in eyes, on skin, or on clothing Wear protective gloves/protective clothing/eye protection/face protection Do not breathe dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area Wear respiratory protection Keep only in original container. |
| Response | Immediately call a POISON CENTER or doctor/physician. |
| Inhalation | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| Skin | Wash contaminated clothing before reuse IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower |
| Eyes | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Ingestion | Rinse mouth. Do NOT induce vomiting |
| Spills | Absorb spillage to prevent material damage. |
| Storage | Store locked up. Store in a well-ventilated place. Keep container tightly closed Store in corrosive resistant polypropylene container with a resistant liner Store in a dry place. |
| Disposal | Dispose of contents/container to an approved waste disposal plant. |

4. First Aid Measures

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| General Advice | Immediate and specialised first aid and medical treatment is required. Speed is of the essence. Flush with plenty of water immediately. Continue flushing during transport to hospital or medical center. |
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required. Dermal burns may be treated with calcium gluconate gel or slurry in water or glycerine. This compound binds the active fluorides in an insoluble form and limits burn extension and pain. Soaking or immersion with iced 0.13% Benzalkonium chloride solution may be used for skin burns and should be continued until the pain is relieved. Do not use in eyes. |
| Inhalation | If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way equipped with a one-way valve or other proper respiratory medical device. Remove to fresh air. Immediate medical attention is required. A nebulized solution of 2.5% Calcium gluconate may be administered with Oxygen by inhalation. |
| Ingestion | Do NOT induce vomiting. Call a physician or poison control center immediately. |
| Most important symptoms/effects, acute and delayed | Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. |
| Notes to Physician | Treat symptomatically |

5. Fire-fighting Measures

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| Suitable Extinguishing Media | Water spray. Carbon dioxide (CO 2). Dry chemical. Chemical foam. |
| Unsuitable Extinguishing Media | No information available. |
| Flash Point | No information available |
| Method | No information available |
| Autoignition Temperature | No information available |
| Explosion Limits | Upper No data available Lower No data available Sensitivity to Mechanical Impact No information available Sensitivity to Static Discharge No information available |
| Specific Hazards Arising from the Chemical | The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. |
| Hazardous Combustion Products | Gaseous hydrogen fluoride (HF). |
| Protective Equipment and Precautions for Firefighters | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating |

gases and vapors.

6. Accidental Release Measures

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Personal precautions, protective equipment and emergency procedures.

Evacuate

personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental Precautions

Should not be released into the environment.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Keep in suitable, closed containers for disposal.

7. Handling and Storage

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Handling

Wear personal protective equipment. Ensure adequate ventilation.

Avoid contact with skin, eyes and clothing. Avoid dust formation. Avoid breathing dust/fume/gas/mist/vapors/spray.

Storage

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Corrosives area.

8. Exposure controls and personal protection

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Engineering Measures

Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection Tight sealing safety goggles. Face protection shield.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

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Physical State

Liquid

Appearance

Colorless

Odor

Pungent

Odor Threshold

No information available

pH

< 1.0

Melting Point/Freezing Point

-35 °C / -31 °F

Initial Boiling Point and Boiling Range

105 °C / 221 °F

Flash Point

No information available

Evaporation Rate

No information available

Solid Flammability (solid,gas)

No information available

Flammability or explosive limits

Upper No data available

Lower No data available

Vapor Pressure

No information available

Vapor Density

2.21

Specific Gravity

1.15-1.20

| | |
|---------------------------------------|--------------------------|
| Solubility | No information available |
| Partition coefficient:n-octanol/water | No information available |
| Auto-ignition temperature | No information available |
| Decomposition temperature | No information available |
| Molecular Formula | H F |
| Molecular Weight | 20 |

10. Stability and reactivity

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|--------------------------|---|
| Reactivity | None known, based on information available |
| Stability | Stable under normal conditions. |
| Conditions to Avoid | Incompatible products. Excess heat. |
| Incompatible Materials | Metals, Cyanides, Sulfides, Bases, Fluorine. |
| Hazardous Decomposition | Products Gaseous hydrogen fluoride (HF). |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions | Corrosive to metals. Contact with metals may evolve flammable hydrogen gas. |

11. Toxicological information

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| Toxicologically Synergistic | No data available |
| Irritation | Causes severe burns by all exposure routes. |
| Sensitization | No data available |
| Carcinogenicity | The table below indicates whether each agency has listed any ingredient as a carcinogen. |
| Mutagenic Effects | Not mutagenic in AMES Test. |
| Reproductive toxicity | No information available. |
| Developmental Effects | No information available. |
| Teratogenicity | No information available. |
| STOT-single exposure | None known |
| STOT-repeated exposure | None known |
| Aspiration hazard | No information available |
| Symptoms / effects,both acute and delayed | Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation |
| Endocrine Disruptor Information | No information available |
| Other Adverse Effects | The toxicological properties have not been fully investigated. |

12. Ecological information

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| Persistence and Degradability | Soluble in water Persistence is unlikely based on information available. Miscible with water. |
| Bioaccumulative potential | No information available. |
| Mobility in soil | Will likely be mobile in the environment due to its water solubility. |

13. Disposal considerations

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Waste from Residues / Unused Products

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

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ADR/RID

| | |
|-------------------------|-------------------|
| UN number | UN1790 |
| UN proper shipping name | HYDROFLUORIC ACID |
| Hazard Class | 8 |
| Packing Group | II |
| Subsidiary Hazard Class | 6.1 |

TDG

| | |
|-------------------------|-------------------|
| UN number | UN1790 |
| UN proper shipping name | HYDROFLUORIC ACID |
| Hazard Class | 8 |
| Packing Group | II |
| Subsidiary Hazard Class | 6.1 |

IATA

| | |
|-------------------------|-------------------|
| UN number | UN1790 |
| UN proper shipping name | HYDROFLUORIC ACID |
| Hazard Class | 8 |
| Packing Group | II |
| Subsidiary Hazard Class | 6.1 |

IMDG/IMO

| | |
|-------------------------|-------------------|
| UN number | UN1790 |
| UN proper shipping name | HYDROFLUORIC ACID |
| Hazard Class | 8 |
| Packing Group | II |