

1. Product and Company Identification

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Product Name RXSOL-22-2205-025

Product Type Muriatic Acid

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / Information on ingredients

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| Ingredient | CAS No | | Percent |
|-------------------|-----------|----|---------|
| HYDROGEN CHLORIDE | 7647-01-0 | 9 | 36 |
| Water | 7732-18-5 | 63 | 91 |

3. Hazards Identification

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NFPA RATINGS (SCALE 0-4)

HEALTH = 3

FIRE = 0

REACTIVITY = 0

HMIS RATINGS (SCALE 0-4)

HEALTH = 3

FLAMMABILITY = 0

REACTIVITY = 0

EMERGENCY OVERVIEW

COLOR colorless

PHYSICAL FORM liquid

ODOR pungent odor

SIGNAL WORD DANGER

MAJOR HEALTH HAZARDS CAUSES BURNS TO THE RESPIRATORY TRACT, SKIN, EYES AND

GASTROINTESTINAL TRACT CAUSES PERMANENT EYE DAMAGE. MAY BE HARMFUL OR FATAL IF SWALLOWED.

PHYSICAL HAZARDS May spatter or generate heat when mixed with water. Contact with metals may evolve flammable hydrogen gas.

PRECAUTIONARY Do not breathe vapor or mist. Do not get in eyes, on skin, or on clothing.

STATEMENTS Do not taste or swallow. Wash thoroughly after handling. Use only with adequate ventilation.

SHORT TERM EXPOSURE burns, eye damage, blindness

LONG TERM EXPOSURE to our knowledge, no effects are known

INGESTION
SHORT TERM EXPOSURE
LONG TERM EXPOSURE
CARCINOGEN STATUS
OSHA
NTP
IARC

None
No data available
No data available
No data available

4. First Aid Measures

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Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If respiration or pulse has stopped, have a trained person administer Basic Life Support (CPR). Primary Resuscitation/Auxiliary: Evacuate (De/Re/Store) or

CALL FOR EMERGENCY SERVICES IMMEDIATELY.

Skin Contact

Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry, and shoes immediately. Wash contaminated areas with soap and water. Thoroughly clean and dry contaminated clothing and shoes before reuse. Discard footwear which cannot be decontaminated.

GET MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT

Immediately flush eyes with a directed stream of water for at least 15 minutes. Gently holding eyelids apart to ensure complete irrigation of all eye and lid tissues. Working eyes without contact lenses is essential to achieve maximum effectiveness.

GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION

Never give anything by mouth to an unconscious or comatose person. If unwell, do not induce vomiting. Give large amounts of water. If vomiting occurs spontaneously, keep patient clear. Give more water when vomiting stops.

GET MEDICAL ATTENTION IMMEDIATELY.

NOTE TO PHYSICIAN

The absence of visible signs or symptoms of burns does NOT reliably exclude the presence of actual tissue damage. damage may contraindicate the use of gastric lavage.

5. Fire-fighting Measures

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FIRE AND EXPLOSION HAZARDS

May release toxic gases.

EXTINGUISHING MEDIA

Use extinguishing agents appropriate for surrounding fire.

FIRE FIGHTING

Keep unnecessary people away, isolate hazard area and deny entry. Wear NIOSH approved positive pressure self-contained breathing apparatus. Move containers from fire area if it can be done without risk. Avoid inhalation of material or combustion by products. Stay upwind and keep out of low areas. Cool containers with water.

SENSITIVITY TO MECHANICAL

Not sensitive

IMPACT

Not flammable

FLASH POINT

HAZARDOUS COMBUSTION

Thermal decomposition products or combustion: hydrogen chloride

PRODUCTS

6. Accidental Release Measures

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OCCUPATIONAL RELEASE: Evacuation of surrounding area may be necessary for large spills. Wear appropriate personal protective equipment recommended in Section 8 of the MSDS. Completely contain spilled material with dikes, sandbags, etc. Shut off ventilation system if needed. Reprocess or reuse if possible. Neutralize with soda ash or dilute caustic soda. Collect with appropriate absorbent and place into suitable container. Liquid material may be removed with a vacuum truck. Keep out of water supplies and sewers. This material is acidic and may lower the pH of the surface waters with low buffering capacity. Releases should be reported, if required, to appropriate agencies. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800) 424-8802 (USA) or (202) 426-2675 (USA).

7. Handling and Storage

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STORAGE

Store and handle in accordance with all current regulations and standards. Store in rubber-lined steel, acid-resistant plastic or glass containers. Keep containers closed and properly labeled. Store in a cool, dry place. Store in a well-ventilated area. Do not store in aluminum container or use aluminum fittings or transfer equipment. Do not use vent storage tanks. Keep separated from incompatible substances (see Section 9 of the MSDS).

HANDLING

Avoid breathing vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. When mixing, slowly add to water to minimize heat generation and spattering.

8. Exposure controls and personal protection

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| | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EXPOSURE LIMITS | HYDROGEN CHLORIDE, ANHYDROUS: |
| HYDROGEN CHLORIDE (HYDROCHLORIC ACID) | 5 ppm (7 mg/m ³) OSHA ceiling, 2 ppm ACGIH ceiling |
| VENTILATION | Use closed systems when possible. Provide local exhaust ventilation where vapor or mist may be generated. Ensure applicable exposure limits. |
| EYE PROTECTION | Wear safety glasses with side shields. Wear chemical safety goggles with a faceshield or chemical splash hood. Provide eye wash fountain and quick drench shower in the immediate work area. |
| CLOTHING | Wear chemical resistant clothing and rubber boots when potential for contact with the material exists. Always place plastic boots. |
| GLOVES | Wear appropriate chemical resistant gloves. |
| PROTECTIVE MATERIAL TYPES | neoprene, nitrile, polyvinyl chloride (PVC), rubber, Kappler® CPF3, Tychem |
| IMMEDIATELY DANGEROUS TO LIFE OR HEALTH | |
| RESPIRATOR | Where vapor concentration exceeds or is likely to exceed applicable exposure limits, a NIOSH approved respirator with canister is required. When an air-purifying respirator is not adequate for spills and/or emergencies of unknown concentration, a NIOSH approved self-contained breathing apparatus or airline respirator with full-face piece is required. A respirator program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator. |

9. Physical and chemical properties

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| | |
|------------------------------|------------------------------------|
| PHYSICAL STATE | liquid |
| Appearance | Clear. |
| COLOR | colorless |
| Odor | |
| MOLECULAR WEIGHT | 36.46 |
| MOLECULAR FORMULA | HCl |
| BOILING POINT | 140-221F (60.0 ° 105 C) |
| FREEZING POINT | 29 to 5 F (-34 to °15 C) |
| VAPOR PRESSURE | 14.6 ° 80 mmHg @ 20 C |
| VAPOR DENSITY (air = 1) | 1.3 @ 20 C |
| SPECIFIC GRAVITY (water = 1) | 1.05 ° 1.18 |
| BULK DENSITY | 8.75 ° 9.83 lbs/gal |
| WATER SOLUBILITY | 100% |
| PH | 2 (0.2% solution) |
| VOLATILITY | 9 ° 36% by volume |
| ODOR THRESHOLD | 0.3 ppm (causes olfactory fatigue) |
| EVAPORATION RATE | |