Material Safety Data Sheet

Acrylic Acid (RXSOL-19-1217-025)

1. Product and Company Identifaction

Product Name	**Acrylic Acid**
Product Type	**RXSOL-19-1217-025**

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

Stock Points: Mumbai, Kandla, Kolkata, Visakhapatnam, Chennai, Fujairah UAE, Muscat Oman, Nairobi Kenya, Canada

Phone	+91 22 65113333/ 5555 / 9999 / 27611360 / 27815540
Fax	+91 22 2781 1318 :::AOH :0091 9322594669
Email	mail@rxmarine.com

2. Composition / informationon ingredients

Composition:

Name	CAS #	% by Weight
Acrylic Acid	79-10-7	10

Toxicological Data on Ingredients:

Acrylic Acid: ORAL (LD50): Acute: 33500 mg/kg [Rat]. 2400 mg/kg [Mouse]. DERMAL(LD50): Acute: 294 mg/kg [Rabbit]. VAPOR (LC50): Acute: 5300 mg/m 2 hours [Mouse]. 75 ppm 6 hours [Monkey].

3. Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of skin contact (permeator), of eye contact (irritant, corrosive). Corrosive to skin and eyes on contact.Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Classified POSSIBLE for human. Mutagenic for mammalian germ and somatic cells.
TERATOGENIC EFFECTS: Classified SUSPECTED for human. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/male [POSSIBLE]. Classified Development toxin [SUSPECTED]. The substance is toxic to bladder, brain, upper respiratory tract, eyes, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation.Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

4. First Aid Measures

Eye Contact:	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
Skin Contact:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately
Serious Skin Contact:	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Serious Inhalation:	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.
Serious Inhalation:	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
Serious Ingestion:	Not available.

5. Fire-fighting Measures

Flammability of the Product:	Flammable.
Auto-Ignition Temperature:	438°C (820.4°F)
Flash Points:	CLOSED CUP: 50°C (122°F).
Flammable Limits:	Not available.
Products of Combustion:	These products are carbon oxides (CO, CO2).
Fire Hazards in Presence of Various Substances:	Extremely flammable in presence of open flames and sparks. Highly flammable in presence of heat.
Explosion Hazards in Presence of Various Substances:	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions:	Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam,water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

Special Remarks on Fire Hazards:	Not available.
Special Remarks on Explosion Hazards:	Not available.

6. Accidental Release Measures

Small Spill:
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill:
Flammable liquid. Corrosive liquid. Poisonous liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers,basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

7. Handling and Storage

Precautions:
Keep locked up.. Keep container dry. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. If ingested,seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids, alkalis, moisture.

Storage:
Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

8. Exposure controls and personal protection

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:
Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:
TWA: 2 (ppm) from ACGIH (TLV) [United States] [1997] TWA: 2 [Australia] STEL: 20 (ppm) [United Kingdom (UK)] TWA: 10(ppm) [United Kingdom (UK)] Consult local authorities for acceptable exposure limits.

9. Physical and chemical properties

Physical state and appearance:	Liquid.
Odor:	Acrid (Strong.)
Taste:	Not available.
Molecular Weight:	72.06 g/mole
Color:	Colorless.
pH (1% soln/water):	Not available.
Boiling Point:	141°C (285.8°F)
Melting Point:	14°C (57.2°F)
Critical Temperature:	342°C (647.6°F)
Specific Gravity:	1.05 (Water = 1)
Vapor Pressure:	0.5 kPa (@ 20°C)
Vapor Density:	2.5 (Air = 1)
Volatility:	Not available.
Odor Threshold:	0.092 ppm
Water/Oil Dist. Coeff.:	The product is more soluble in oil; log(oil/water) = 0.4
Ionicity (in Water):	Not available.
Dispersion Properties:	Partially dispersed in methanol, diethyl ether. See solubility in water.
Solubility:	Soluble in cold water. Very slightly soluble in acetone. Insoluble in diethyl ether.

10. Stability and reactivity

Stability:	The product is stable.
Instability Temperature:	Not available.
Conditions of Instability:	Not available.
Incompatibility with various substances:	Extremely reactive or incompatible with oxidizing agents, acids, alkalis. Reactive with moisture.
Corrosivity:	Slightly corrosive in presence of steel, of aluminum, of zinc, of copper. Non-corrosive in presence of glass.
Special Remarks on Reactivity:	Not available.
Special Remarks on Corrosivity:	Not available.
Polymerization:	Yes.

11. Toxicological information

Routes of Entry:	Absorbed through skin. Dermal contact. Eye contact. Inhalation.
Toxicity to Animals:	WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 2400 mg/kg [Mouse]. Acute dermal toxicity (LD50): 294 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 75 6 hours [Monkey].
Chronic Effects on Humans:	CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Classified POSSIBLE for human. Mutagenic for mammalian germ and somatic cells. TERATOGENIC EFFECTS: Classified SUSPECTED for human. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/male [POSSIBLE]. Classified Development toxin [SUSPECTED]. Causes damage to the following organs: bladder, brain, upper respiratory tract, eyes, central nervous system (CNS).
Other Toxic Effects on Humans:	Very hazardous in case of skin contact (permeator), of eye contact (corrosive). Hazardous in case of skin contact (corrosive),of inhalation (lung corrosive).
Special Remarks on Toxicity to Animals:	Not available.
Special Remarks on Chronic Effects on Humans:	Not available.
Special Remarks on other Toxic Effects on Humans:	Not available.

12. Ecological information

Ecotoxicity:	Ecotoxicity in water (LC50): 130 mg/l 24 hours [Trout]. 460 mg/l 96 hours [Trout]. 270 mg/l 24 hours [Water flea].
BOD5 and COD:	Not available.
Products of Biodegradation:	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation:	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation:	Not available.

13. Disposal considerations

Waste Disposal:

14. Transport information

DOT Classification:
Class 8: Corrosive material

Identification: :
Acrylic Acid, Inhibited UNNA: UN2218 PG: II

Special Provisions for Transport:
Not available.

15. Regulatory information

Federal and State Regulations:
Rhode Island RTK hazardous substances: Acrylic Acid Pennsylvania RTK: Acrylic Acid Florida: Acrylic Acid Minnesota: Acrylic Acid Massachusetts RTK: Acrylic Acid New Jersey: Acrylic Acid TSCA 8(b) inventory: Acrylic Acid TSCA 5(e) substance consent order: Acrylic Acid TSCA 8(a) IUR: Acrylic Acid TSCA 12(b) annual export notification: Acrylic Acid SARA 313 toxic chemical notification and release reporting: Acrylic Acid CERCLA: Hazardous substances.: Acrylic Acid: 1 lbs. (0.4536 kg)

Other Regulations: OSHA:
Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:
WHMIS (Canada):

CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
CLASS E: Corrosive liquid.

DSCL (EEC):
HMIS (U.S.A.):
Health Hazard: 3
Fire Hazard: 2
Reactivity: 2
Personal Protection:
National Fire Protection Association (U.S.A.):
Health: 3
Flammability: 2
Reactivity: 2
Specific hazard:

Protective Equipment:
Gloves. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Face shield.

16. Other information

The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements and does not signify any warranty with regard to the product's properties The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer.

DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.