

1. Product and Company Identification

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Product Name RXSOL-19-1267
Product Type Acetic Acid

Company Details:

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2. Composition / Information on ingredients

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Name	CAS #	% by Weight
Acetic acid	64-19-7	100

Toxicological Data on Ingredients: Acetic acid: ORAL (LD50): Acute: 3310 mg/kg [Rat]. 4960 mg/kg [Mouse]. 3530 mg/kg [Rat]. DERMAL (LD50): Acute: 1060 mg/kg [Rabbit]. VAPOR (LC50): Acute: 5620 ppm 1 hours [Mouse].

3. Hazards Identification

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Potential Acute Health Effects:

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive). 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. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects:

Hazardous in case of skin contact (irritant), of ingestion, of inhalation. CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, mucous membranes, skin, teeth. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated p. 2 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.

4. First Aid Measures

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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. 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. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes. 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, give oxygen. Get medical attention immediately.

incompatibles such as oxidizing agents, reducing agents, metals, acids, alkalis.

Storage:

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

8. Exposure controls and personal protection

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Engineering Controls:

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

Personal Protection:

Splash goggles. Synthetic apron. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves (if needed).
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 contact with the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 10 STEL: 15 (ppm) [Australia] TWA: 25 STEL: 27 (mg/m3) [Australia] TWA: 10 STEL: 15 (ppm) from NIOSH (37 mg/m3) from NIOSH TWA: 10 STEL: 15 (ppm) [Canada] TWA: 26 STEL: 39 (mg/m3) [Canada] TWA: 25 STEL: 37 (mg/m3) from NIOSH TWA: 10 STEL: 15 (ppm) from ACGIH (TLV) [United States] [1999] TWA: 10 (ppm) from OSHA (PEL) [United States] (mg/m3) from OSHA (PEL) [United States] Consult local authorities for acceptable exposure limits.

9. Physical and chemical properties

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Physical state and appearance:

Liquid.

Odor:

Pungent, vinegar-like, sour (Strong.)

Taste:

Vinegar, sour (Strong.)

Molecular Weight:

60.05 g/mole

Color:

Colorless. Clear (Light.)

pH (1% soln/water):

2 [Acidic.]

Boiling Point:

118.1°C (244.6°F)

Melting Point:

16.6°C (61.9°F)

Critical Temperature:

321.67°C (611°F)

Specific Gravity:

1.049 (Water = 1)

Vapor Pressure:

1.5 kPa (@ 20°C)

Vapor Density:

2.07 (Air = 1)

Volatility:

Not available.

Odor Threshold:

0.48 ppm

Water/Oil Dist. Coeff.:

The product is more soluble in water; log(oil/water) = -0.2

Ionicity (in Water):

Not available.

Dispersion Properties:

See solubility in water, diethyl ether, acetone.

Solubility:

Easily soluble in cold water, hot water. Soluble in diethyl ether, acetone. Miscible with Glycerol, alcohol, Benzene, Carbon Disulfide.
Practically insoluble in Carbon Disulfide.

10. Stability and reactivity

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Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Heat, ignition sources, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, reducing agents, metals, acids, alkalis.

Corrosivity: Highly corrosive in presence of stainless steel(304). Slightly corrosive in presence of aluminum, of copper. Non-corrosive in presence of stainless steel(316).

Special Remarks on Reactivity: Reacts violently with strong oxidizing agents, acetaldehyde, and acetic anhydride. Material can react with metals, strong bases, amines, carbonates, hydroxides, phosphates, many oxides, cyanides, sulfides, chromic acid, nitric acid, hydrogen peroxide, carbonates.

ammonium nitrate, ammonium thiosulfate, chlorine trifluoride, chlorosulfonic acid, perchloric acid, permanganates, xylene, oleum, potassium hydroxide, sodium hydroxide, phosphorus isocyanate, ethylenediamine, ethylene imine.

Special Remarks on Corrosivity: Moderate corrosive effect on bronze. No corrosion data on brass

Polymerization: Will not occur.

11. Toxicological information

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Routes of Entry:	Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animals:	WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. A (LD50): 3310 mg/kg [Rat]. Acute dermal toxicity (LD50): 1060 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 562 [Mouse].
Chronic Effects on Humans:	MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: kidneys, mucous membranes, skin, teeth.
Other Toxic Effects on Humans:	Extremely hazardous in case of inhalation (lung corrosive). Very hazardous in case of skin contact (irritant), of ingestion, case of skin contact (corrosive, permeator), of eye contact (corrosive).
Special Remarks on Toxicity to Animals:	Not available..
Special Remarks on Chronic Effects on Humans:	May affect genetic material and may cause reproductive effects based on animal data. No human data found.
Special Remarks on other Toxic Effects on Humans:	Acute Potential Health Effects: Skin: Extremely irritating and corrosive. Causes skin irritation (reddening and itching, may cause blistering, tissue damage and burns. Eyes: Extremely irritating and corrosive. Causes eye irritation, lacrimation, May cause burns, blurred vision, conjunctivitis, conjunctival and corneal destruction and permanent injury. Inhalation: respiratory tract irritation. Affects the sense organs (nose, ear, eye, taste), and blood. May cause chemical pneumonitis, pulmonary edema. Severe exposure may result in lung tissue damage and corrosion (ulceration) of the mucous membranes. Also cause rhinitis, sneezing, coughing, oppressive feeling in the chest or chest pain, dyspnea, wheezing, tachypnea, cyanosis, nausea, giddiness, muscular weakness. Ingestion: Moderately toxic. Corrosive. Causes gastrointestinal tract irritation (burns of the mouth, throat, and abdomen, coughing, ulceration, bleeding, nausea, abdominal spasms, vomiting, hematemesis, diarrhea). May affect the liver (impaired liver function), behavior (convulsions, giddiness, muscular weakness), and the urinary system (Hematuria, Albuminuria, Nephrosis, acute renal failure, acute tubular necrosis). May also cause dyspnea or asphyxia, shock, coma and death. Chronic Potential Health Effects: Chronic exposure via ingestion may cause blackening or erosion of the jaw necrosis, pharyngitis, and gastritis. It may also affect behavior (similar to acute ingestion), and metabolism (weight loss). Chronic exposure via inhalation may cause asthma and/or bronchitis with cough, phlegm, and/or shortness of breath. It may also affect the leukocyte count), and urinary system (kidneys). Repeated or prolonged skin contact may cause thickening, blackening, and skin.

12. Ecological information

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Ecotoxicity:	Ecotoxicity in water (LC50): 423 mg/l 24 hours [Fish (Goldfish)]. 88 ppm 96 hours [Fish (fathead minnow)]. 75 ppm 96 hours [bluegill sunfish]. >100 ppm 96 hours [Daphnia].
BOD5 and COD:	BOD-5: 0.34-0.88 g oxygen/g
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

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Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport information

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DOT Classification: CLASS 3: Flammable liquid. Class 8: Corrosive material

Identification: Acetic Acid, Glacial UNNA: 2789 PG: II

Special Provisions for Transport: Not available.

15. Regulatory information

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Federal and State Regulations: New York release reporting list: Acetic acid Rhode Island RTK hazardous substances: Acetic acid Pennsylvania RTK: Acetic acid Minnesota: Acetic acid Massachusetts RTK: Acetic acid New Jersey: Acetic acid California Director's List of Substances (8 CCR 339): Acetic acid TSCA 8(b) inventory: Acetic acid CERCLA: Hazardous substances.: Acetic acid: 50

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is in the Inventory of Existing Commercial Chemical Substances.

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): R10- Flammable. R35- Causes severe burns. S23- Do not breathe gas/ fumes/ vapour/ spray [***] S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).R10- Flammable. R35- Causes severe burns. S23- Do not breathe gas/fumes/vapour/spray [***] S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.): Health Hazard: 3

Fire Hazard: 2

Reactivity: 0

Personal Protection: H

National Fire Protection Association Health: 3

(U.S.A.): Flammability: 2

Reactivity: 0

Specific hazard:

Protective Equipment: Gloves (impervious). Synthetic apron. Vapor respirator. Be sure to use an approved/ certified respirator or equivalent. Wear respirator when ventilation is inadequate. Splash goggles.

16. Other information

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References: Not available.

Other Special Considerations: Not available.

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