

## 1. Product and Company Identification

www.rxmarine.com

Product Name Acetic acid  
Part Number RXSOL-60-6143-025

### Company Details:....

RX MARINE INTERNATIONAL  
105, A wing , BSEL , TECH PARK.  
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Website [www.rxmarine.com](http://www.rxmarine.com)

## 2. Composition / Information on ingredients

www.rxmarine.com

| Component   | Cas No  | Weight |
|-------------|---------|--------|
| Acetic acid | 64-19-7 | >95    |

## 3. Hazards Identification

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### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids Category 3

Skin Corrosion/Irritation Category 1

A Serious Eye Damage/Eye Irritation Category 1

### Label Element

|                          |                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Signal Word              | Danger                                                                                                                                                                                                                                                                                                                                                              |
| Hazard Statements        | Flammable liquid and vapor Causes severe skin burns and eye damage                                                                                                                                                                                                                                                                                                  |
| Precautionary statements | <b>Prevention :</b> Keep away from heat/sparks/open flames/hot surfaces. - No smoking Take precautionary measures against static discharge 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 Wash face, hands and any exposed skin thoroughly |

|                                         |                                                                                                                                                         |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Response                                | after handling Keep container tightly closed                                                                                                            |
| Inhalation                              | Immediately call a POISON CENTER or doctor/physician<br>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing |
| Skin                                    | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse              |
| Eyes                                    | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing                          |
| Ingestion                               | IF SWALLOWED: Rinse mouth. DO NOT induce vomiting                                                                                                       |
| Fire                                    | In case of fire: Use CO2, dry chemical, or foam for extinction                                                                                          |
| Storage                                 | Store locked up Store in a well-ventilated place. Keep container tightly closed                                                                         |
| Disposal                                | Dispose of contents/container to an approved waste disposal plant                                                                                       |
| Hazards not otherwise classified (HNOC) | None identified                                                                                                                                         |

## 4. First Aid Measures

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|                                     |                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General advice                      | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.                                                                                                                                                                                                                             |
| Eye Contact                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.                                                                                                                                                                                             |
| Skin Contact                        | Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.                                                                                                                                       |
| Inhalation                          | If not breathing, give artificial respiration. Remove from exposure, lie down. 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 valve or other proper respiratory medical device. Call a physician immediately |
| Ingestion                           | Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.                                                                                                                                                                                          |
| Most important symptoms and effects | Causes burns by all exposure routes. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting                                                                                                    |
| Notes to Physician                  | Treat symptomatically                                                                                                                                                                                                                                                                                                         |

## 5. Fire-fighting Measures

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|                                                       |                                                                                                                                                                                                                 |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable extinguishing media                          | CO 2, dry chemical, dry sand, alcohol-resistant foam.                                                                                                                                                           |
| Unsuitable extinguishing media                        | No information available                                                                                                                                                                                        |
| Flash Point                                           | 40 °C / 104 °F                                                                                                                                                                                                  |
| Method -                                              | No information available                                                                                                                                                                                        |
| Explosion Limits                                      | Upper 19.9 vol %<br><br>Lower 4.0 vol %                                                                                                                                                                         |
|                                                       | Sensitivity to Mechanical Impact No information available                                                                                                                                                       |
|                                                       | Sensitivity to Static Discharge No information available                                                                                                                                                        |
| Specific Hazards Arising from the Chemical            | Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.                                                                          |
| Hazardous Combustion Products                         | Carbon monoxide (CO). Carbon dioxide (CO2). Thermal decomposition can lead to release of irritating gases and vapors                                                                                            |
| 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 |

|      |                      |
|------|----------------------|
| NFPA | Health 3             |
|      | Flammability 2       |
|      | Instability 0        |
|      | Physical hazards N/A |

## 6. Accidental Release Measures

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|                                                    |                                                                                                                                                               |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal Protection                                | Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |
| Environmental Precaution                           | Should not be released into the environment                                                                                                                   |
| Methods and materials for containment and cleaning | Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.                                                                      |

## 7. Handling and Storage

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|          |                                                                                                                                                                                                                                            |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Handling | Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance |
| Storage. | Corrosives area. Keep away from heat, sparks and flame. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Strong bases. Metals.                                    |

## 8. Exposure controls and personal protection

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### Exposure Guidelines

| Component   | ACGIH TLV    | OSHA PEL                | NIOSH IDLH     | Mexico OEL (TWA) |
|-------------|--------------|-------------------------|----------------|------------------|
| Acetic acid | TWA: 10 ppm  | (Vacated) TWA: 10 ppm   | IDLH: 50 ppm   | TWA: 10 ppm      |
|             | STEL: 15 ppm | (Vacated) TWA: 25 mg/m3 | TWA: 10 ppm    | STEL: 15 ppm     |
|             |              | TWA: 10 ppm             | TWA: 25 mg/m3  |                  |
|             |              | TWA: 25 mg/m3           | STEL: 15 ppm   |                  |
|             |              |                         | STEL: 37 mg/m3 |                  |

|                          |                                                                                                                                                                                                                                                       |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engineering Measures     | Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. |
| Eye/face Protection      | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN 166. 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         | Measures Handle in accordance with good industrial hygiene and safety                                                                                                                                                                                 |

## 9. Physical and chemical properties

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|                                        |                                              |
|----------------------------------------|----------------------------------------------|
| Physical state                         | Liquid                                       |
| Appearance                             | Colorless                                    |
| Odor                                   | Vinegar-like                                 |
| Odor Threshold                         | No information available                     |
| pH                                     | < 2.5 10 g/L aq.sol                          |
| Melting Point/Range                    | 16 - 16.5 °C / 60.8 - 61.7 °F                |
| Boiling Point/Range                    | 117 - 118 °C / 242.6 - 244.4 °F              |
| Flash Point                            | 40 °C / 104 °F                               |
| Evaporation Rate                       | 0.97 (Butyl Acetate = 1.0)                   |
| Flammability (solid, gas)              | No data available                            |
| Flammability or explosive limits       |                                              |
| Upper                                  | 19.9 vol %                                   |
| Lower                                  | 4.0 vol %                                    |
| Vapor Pressure                         | 1.52 kPa @ 20 °C                             |
| Vapor Density                          | 2.10                                         |
| Specific Gravity                       | 1.048                                        |
| Solubility                             | Soluble in water                             |
| Partition coefficient; n-octanol/water | No data available                            |
| Autoignition Temperature               | 427 °C / 800.6 °F                            |
| Decomposition Temperature              | No data available                            |
| Viscosity                              | 1.53 mPa.s @ 25 °C                           |
| Molecular Formula                      | C <sub>2</sub> H <sub>4</sub> O <sub>2</sub> |
| Molecular Weight                       | 60.05                                        |

## 10. Stability and reactivity

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|                                  |                                                                                                                                   |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Reactive Hazard                  | None known, based on information available                                                                                        |
| Stability                        | Stable under normal conditions.                                                                                                   |
| Conditions to Avoid              | Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.                             |
| Incompatible Materials           | Materials Strong oxidizing agents, Strong bases, Metals                                                                           |
| Hazardous Decomposition Products | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Thermal decomposition can lead to release of irritating gases and vapors |
| Hazardous Polymerization         | Hazardous polymerization does not occur.                                                                                          |
| Hazardous Reactions              | None under normal processing.                                                                                                     |

## 11. Toxicological information

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### Acute Toxicity

### Product Information

### Component Information

| Component   | LD50 Oral          | LD50 Dermal | LC50 Inhalation       |
|-------------|--------------------|-------------|-----------------------|
| Acetic acid | 3310 mg/kg ( Rat ) | -           | > 40 mg/L ( Rat ) 4 h |

**Toxicologically Synergistic** No information available

## Products

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Irritation

Causes severe burns by all exposure routes

#### Sensitization

No information available

#### Carcinogenicity

The table below indicates whether each agency has listed any ingredient as acarcinogen.

| Compon<br>ent  | CAS<br>No | IARC          | NTP           | ACGIH         | OSHA          | Mexico        |
|----------------|-----------|---------------|---------------|---------------|---------------|---------------|
| Acetic<br>acid | 64-19-7   | Not<br>listed | Not<br>listed | Not<br>listed | Not<br>listed | Not<br>listed |

#### Mutagenic Effects

Not mutagenic in AMES Test

#### Reproductive Effects

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

Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of overexposure may be headache, dizziness, tiredness, nauseaand vomiting

#### Endocrine Disruptor Information

No information available.

#### Other Adverse Effects

The toxicological properties have not been fully investigated.

## 12. Ecological information

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### Ecotoxicity

Do not empty into drains.

| Component   | Freshwater Algae | Freshwater Fish                                                                          | Microtox                                                                                                                                                                                    | Water Flea         |
|-------------|------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| Acetic acid | -                | Pimephales promelas: LC50<br>= 88 mg/L/96h<br>Lepomis macrochirus: LC50<br>= 75 mg/L/96h | Photobacterium<br><br>phosphoreum: EC50 = 8.8<br>mg/L/15 min<br>Photobacterium<br><br>phosphoreum: EC50 = 8.8<br>mg/L/25 min<br>Photobacterium<br><br>phosphoreum: EC50 = 8.8<br>mg/L/5 min | EC50 = 95 mg/L/24h |

### Persistence and Degradability

Degradability Miscible with water Persistence is unlikely based on information available.

### Bioaccumulation/ Accumulation

No information available

|                 |                                                                       |
|-----------------|-----------------------------------------------------------------------|
| <b>Mobility</b> | Will likely be mobile in the environment due to its water solubility. |
|-----------------|-----------------------------------------------------------------------|

|             |         |
|-------------|---------|
| Component   | log Pow |
| Acetic acid | -0.2    |

### 13. Disposal considerations

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|                        |                                                                                                                                                                                                                                                                 |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waste Disposal Methods | 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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#### DOT

|                         |                      |
|-------------------------|----------------------|
| UN number               | UN2789               |
| Proper Shipping Name    | ACETIC ACID, GLACIAL |
| Hazard Class            | 8                    |
| Subsidiary Hazard Class | 3                    |
| Packing Group           | II                   |

#### TDG

|                         |                      |
|-------------------------|----------------------|
| UN number               | UN2789               |
| Proper Shipping Name    | ACETIC ACID, GLACIAL |
| Hazard Class            | 8                    |
| Subsidiary Hazard Class | 3                    |
| Packing Group           | II                   |

#### IATA

|                         |                      |
|-------------------------|----------------------|
| UN number               | UN2789               |
| Proper Shipping Name    | ACETIC ACID, GLACIAL |
| Hazard Class            | 8                    |
| Subsidiary Hazard Class | 3                    |
| Packing Group           | II                   |

#### IMDG/IMO

|                         |                      |
|-------------------------|----------------------|
| UN number               | UN2789               |
| Proper Shipping Name    | ACETIC ACID, GLACIAL |
| Hazard Class            | 8                    |
| Subsidiary Hazard Class | 3                    |
| Packing Group           | II                   |

### 15. Regulatory information

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#### United States of America Inventory

| Component   | CAS No  | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA RegulatoryFlags |
|-------------|---------|------|-----------------------------------------------|----------------------------|
| Acetic acid | 64-19-7 | X    | ACTIVE                                        | -                          |

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed '-'

- Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC),Korea(KECL)

| Component   | CAS No  | DSL | NDSL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|-------------|---------|-----|------|-----------|-------|------|------|------|-------|------|
| Acetic acid | 64-19-7 | X   | -    | 200-580-7 | X     | X    | X    | X    | X     | X    |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

| Component   | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|-------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Acetic acid | x                          | 5000 lb                     | -                      | -                         |

|                                                      |                                                                                                                                                                                                    |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Clean Air Act                                        | Not applicable                                                                                                                                                                                     |
| OSHA - Occupational Safety and Health Administration | Not applicable                                                                                                                                                                                     |
| CERCLA                                               | This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) |

| Component   | Hazardous Substances RQs | CERCLA EHS RQs |
|-------------|--------------------------|----------------|
| Acetic acid | 5000 lb                  | -              |

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Component   | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------|---------------|------------|--------------|----------|--------------|
| Acetic acid | X             | X          | X            | -        | X            |

U.S. Department of Transportation

Reportable Quantity (RQ): Y

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals

#### Other International Regulations

Mexico - Grade Moderate risk, Grade 2

#### Authorisation/Restrictions according to EU REACH

| Component   | REACH (1907/2006) - Annex XIV<br>-Substances Subject to<br>Authorization | REACH (1907/2006) - Annex<br>XVII - Restrictions on Certain<br>Dangerous Substances | REACH Regulation<br>(EC1907/2006) article 59 -<br>CandidateList of Substances of<br>Very HighConcern (SVHC) |
|-------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Acetic acid | -                                                                        | Use restricted. See item 75. (see link<br>for restriction details)                  | -                                                                                                           |

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

| Component   | CAS No  | OECD HPV | Persistent Organic<br>Pollutant | Ozone Depletion<br>Potentia | Restriction of<br>HazardousSubstances<br>(RoHS) |
|-------------|---------|----------|---------------------------------|-----------------------------|-------------------------------------------------|
| Acetic acid | 64-19-7 | Listed   | Not applicable                  | Not applicable              | Not applicable                                  |

| Component   | CAS No  | Seveso III Directive<br>(2012/18/EC) -<br>Qualifying Quantities<br>for Major Accident<br>Notification | Seveso III Directive<br>(2012/18/EC) -<br>Qualifying Quantities<br>for Safety Report<br>Requirements | Rotterdam<br>Convention (PIC) | Basel Convention(Ha<br>zardous Waste) |
|-------------|---------|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------|
| Acetic acid | 64-19-7 | Not applicable                                                                                        | Not applicable                                                                                       | Not applicable                | Annex I - Y34                         |

## 16. Other information

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#### Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages.

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