

# MSDS

MERCURIC ACETATE SOLUTIONS in Acetic Acid

## Material Safety Data Sheet

### Section 1: Chemical Product and Company Identification

<b>Catalog Number:</b> 4625, 4627, 4629, M-132, M057000, R4626000, SM057000	
<b>Product Identity:</b> MERCURIC ACETATE SOLUTIONS in Acetic Acid	
<b>Manufacturer's Name:</b> RICCA CHEMICAL COMPANY LLC	<b>Emergency Contact(24 hr) -- CHEMTREC®</b> Domestic: 800-424-9300 International: 703-527-3887
<b>CAGE Code:</b> 4TCW6, 0V553, 4XZQ2	
<b>Address:</b> 448 West Fork Dr Arlington, TX 76012	<b>Telephone Number For Information:</b> 817-461-5601
<b>Date Prepared:</b> 3/29/02	<b>Revision: 4</b>  Last Revised: 05/14/2009 Date Printed: 10/01/2014 4:22:25 pm

### Section 2. Composition/Information on Ingredients

Component	CAS Registry #	Concentration	ACGIH TLV	OSHA PEL
Mercury (II) Acetate (Mercuric Acetate)	1600-27-7	< 7	Not Available 0.01 mg/m3	Not Available 0.01 mg/m3
Acetic Acid	64-19-7	Balance	10 ppm 25 mg/m3	10 ppm 25 mg/m3

### Section 3: Hazard Identification

**Emergency Overview:** DANGER! Causes severe burns. Toxic. May be fatal if swallowed. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor. Use with adequate ventilation. If ingested, do not induce vomiting. Give large quantity of water or milk and call a physician. Wash areas of contact with plenty of water for 15 minutes. For eyes, get medical attention.

**Target Organs:** skin, eyes, respiratory system, teeth, central nervous system, kidneys.

**Eye Contact:** Eye contact may cause severe eye damage followed by loss of sight. Vapor exposure may cause watering and irritation to eyes.

**Inhalation:** Inhalation of concentrated vapors may cause serious damage to the lining of the nose, throat and lungs.

**Skin Contact:** May cause serious damage to the skin. Effects may include redness, pain, skin burns.

**Ingestion:** Swallowing can cause severe injury leading to death. Symptoms include sore throat, vomiting and diarrhea.

**Chronic Effects/Carcinogenicity:** Repeated exposures may cause erosion of exposed front teeth, darkening of skin and chronic inflammation of the nose, throat and bronchial tubes. Mercury can accumulate in the body on prolonged exposure.

**IARC** - Mercury (II) Acetate (Mercuric Acetate) is possibly carcinogenic to humans. Mercury (II) Acetate (Mercuric Acetate) is possibly carcinogenic to humans.

**NTP** - No.

**OSHA** - No.



## MSDS

For RICCA, SpectroPure, Red Bird, and Solutions Plus Brands

Emergency Contact(24 hr) -- CHEMTREC®

Domestic: 800-424-9300

International: 703-527-3887

MERCURIC ACETATE SOLUTIONS in Acetic Acid

**Reproductive Information:** Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Acetic Acid. Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Mercury (II) Acetate (Mercuric Acetate). Reproductive effects cited in 'Registry of Toxic Effects

**Teratology (Birth Defect) Information:** Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Acetic Acid. Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Mercury (II) Acetate (Mercuric Acetate). Mutation data cited in 'Registry of Toxic Effects of

**Section 4: First Aid Measures - In all cases, seek qualified evaluation.**

**Eye Contact:** Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**Skin Contact:** Immediately flush with plenty of water for at least 15 minutes. Remove any contaminated clothing. Wash with soap and water, then flush again with water. Call a physician if irritation develops.

**Ingestion:** Dilute with large amounts of water. Do not induce vomiting. Vomiting may cause further damage due to the corrosive nature of this product . Call a physician.

## Section 5: Fire Fighting Measures

**Flash Point:** 39oC (Acetic Acid)

**Method Used:** closed cup

**LFL: 4.0% (Acetic Acid)**

**UFL: 19.9% (Acetic Acid)**

**Extinguishing Media:** Use any means suitable for extinguishing surrounding fire (Water, water spray, foam, or dry chemical). If using water, do not allow water run off to enter sewer.

**Fire & Explosion Hazards:** Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Contact with strong oxidizers may cause fire. Vapors can flow along surfaces to distant ignition source and flash back . Reacts with most metals to produce hydrogen gas, which can form explosive mixture with air.

**Fire Fighting Instructions:** Poisonous gases are produced in fire. Continue to cool containers with water after fire is extinguished. For larger fires, use unmanned hose apparatus, if possible. Consider down wind conditions. Do not release runoff from fire-fighting measures to sewers or waterways.

**Fire Fighting Equipment:** Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## Section 6: Accidental Release Measures

Wear gloves to protect from absorption through skin. Absorb with suitable material and containerize for proper disposal. Do not flush to sewer.

## Section 7. Handling and Storage

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Do not mix with bases. Contact with water will generate heat.

**Safety Storage Code:** Corrosive

## Section 8: Exposure Control/Personal Protection

**Engineering Controls:** A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

**Respiratory Protection:** Work with adequate ventilation or wear respirator with acid gas /organic vapor cartridge.

**Skin Protection:** Chemical resistant gloves.

**Eye Protection:** Safety glasses or goggles.

## Section 9: Physical and Chemical Properties

**Appearance:** Clear, colorless liquid

**Odor:** Strong vinegar odor

**Solubility in Water:** Infinite

**Specific Gravity:** Approximately 1.05

pH: < 1

**Boiling Point(°C):** approximately 118 (Acetic Acid)

**Melting Point(°C):** approximately 16.6 (Acetic Acid)

**Vapor Pressure:** 11 at 20oC (Acetic Acid)

## Section 10: Stability and Reactivity

**Chemical Stability:** Stable under normal conditions of use and storage. Acetic acid contracts slightly upon freezing which may cause the container to burst.

## MSDS

**Incompatibility:** Strong bases, strong oxidizers, chromic acid, sodium peroxide, nitric acid, perchloric acid.

**Hazardous Decomposition Products:** Can emit toxic fumes and gases when heated to decomposition including Mercury and Carbon Oxides.

**Hazardous Polymerization:** Will not occur.

### Section 11. Toxicological Information

LD50, Oral, Rat: (Acetic Acid) 3310 mg/kg, (Mercuric Acetate) 40.9 mg/kg; LD50, Dermal, Rabbit (Acetic Acid): 1.06 g/kg, LD50, Dermal, Rat: (Mercuric Acetate) 570 mg/kg, details of toxic effects not reported other than lethal dose value; LC50, Inhalation, Mouse (Acetic Acid): 5620 ppm/1 hr., eye and blood effects noted.

### Section 12. Ecological Information

**Ecotoxicological Information:** Acetic Acid has high biochemical oxygen demand, and a potential to cause oxygen depletion in aqueous systems, low potential to affect aquatic organisms and a low potential to affect the growth of some plant seedlings. Mercury compounds have high acute and chronic toxicity to aquatic life.

**Chemical Fate Information:** Mercury is highly persistent in water with a half-life greater than 200 days. When released into water, microorganisms convert Mercuric salts into Methyl Mercury which is rapidly taken up by algae and enters the food chain. It concentrates in the edible tissues of fish and, eventually, can cause human poisoning as well.

### Section 13. Disposal Considerations

Wear gloves to protect from absorption through skin. Absorb with suitable material and containerize for proper disposal. Do not flush to sewer. Always dispose of in accordance with local, state and federal regulations.

### Section 14. Transport Information

Part Numbers: 4625-1, 4627-1, 4629-16, 4629-32, 4629-4, M-132 500ML, M-132 LT, R4626000-100C

D.O.T. Shipping Name: Acetic Acid Solution

D.O.T. Hazard Class: 8 (3)

U.N. / N.A. Number: UN2789

Packing Group: II

D.O.T. Label: 8, 3



### Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

**OSHA Status:** These items meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

**TSCA Status:** All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed on the TSCA Inventory.

Sara Title III:

**Section 302 Extremely Hazardous Substances:** Not Applicable.

**Section 311/312 Hazardous Categories:** Acute, Chronic, Fire, Reactivity: Yes      Pressure: No

**Section 313 Toxic Chemicals:** Not Applicable.

**California:** Contains an ingredient (Mercury (II) Acetate (Mercuric Acetate)) known to the state of California to cause developmental toxicity.

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**Pennsylvania:** Acetic Acid is listed as an Environmental Hazard on the state's Hazardous Substances List. Mercury (II) Acetate (Mercuric Acetate) is listed as an Environmental Hazard on the state's Hazardous Substances List. Mercury (II) Acetate (Mercuric Acetate) is listed as an Environmental Hazard on the state's Hazardous Substances List.

**RCRA Status:** Not Applicable.

**CERCLA Reportable Quantity:** Mercury (II) Acetate (Mercuric Acetate) - 1 pounds. Mercury (II) Acetate (Mercuric Acetate) - 1 pounds.

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**WHMIS:** E: Corrosive Material. B-3: Flammable and Combustible Material. Combustible Liquid.D-2A: Poisonous and Infectious Material. Materials causing other toxic effects - Very Toxic Material.



### Section 16. Other Information

#### NFPA Ratings:

Health: 3

Flammability: 2

Reactivity: 0

Special Notice Key:None

#### HMIS Ratings:

Health: 3\*

Flammability: 2

Reactivity: 0

Protective Equipment:B (Protective Eyewear, Gloves)

Rev 1, 12-01-2003: (Section 1) added Solutions Plus catalog number M057000.

Rev 2, 11-15-2005: (Section 1) added Red Bird catalog number M-132.

Rev 3, 01-30-2007: (Section 1) added catalog number R4626000.

Rev 4, 05-14-2009: (Section 1) added catalog number 4627.

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.