

Safety Data Sheet

File version: 1

Citric acid/Sodium hydroxide, 1M, pH 4.0

SDS Date: 29 Nov 2016

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**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**


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**PRODUCT NAME:** 1M Citric acid/Sodium hydroxide pH 4.0  
**PRODUCT CODES:** 1008159  
 1008160  
**MANUFACTURER:** Rigaku Reagents  
**ADDRESS:** 9009 New Trails Drive  
 The Woodlands, TX 77381  
 USA  
**PHONE:** +1 (281) 362-2300  
**EMAIL:** ReagentOrders@Rigaku.com

**CHEMICAL NAME:** Citric acid  
**CHEMICAL FORMULA:** C<sub>6</sub>H<sub>8</sub>O<sub>7</sub>

**PREPARED BY:** Rigaku Reagents

**SECTION 1 NOTES:**

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**SECTION 2: HAZARDS IDENTIFICATION**


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**EMERGENCY OVERVIEW:**

**OSHA HAZARDS:** Irritant

**GHS CLASSIFICATION:**  
 Eye irritation (Category 2A)

**GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS**

**Signal word:** Warning

**Hazard statement(s):**

H319 Causes serious eye irritation.

**Precautionary statement(s):**

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**POTENTIAL HEALTH EFFECTS:**

**EYES:** Causes eye irritation.

**SKIN:** May be harmful if absorbed through skin. Causes skin irritation.

**INGESTION:** May be harmful if swallowed.

**INHALATION:** May be harmful if inhaled. Causes respiratory tract irritation.

**SECTION 2 NOTES:**

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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**


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**INGREDIENTS:** Citric acid, Sodium hydroxide

**CITRIC ACID:**

<u>CAS NO.</u>	<u>% WT</u>	<u>% VOL</u>
5949-29-1	18.2-20.2	

**SODIUM HYDROXIDE:**

<u>CAS NO.</u>	<u>% WT</u>	<u>% VOL</u>
1310-73-2		2-5

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**SECTION 3 NOTES:**

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**SECTION 4: FIRST AID MEASURES**

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**EYES:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.**SKIN:** Wash off with soap and plenty of water. Consult a physician.**INGESTION:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.**INHALATION:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.**SECTION 4 NOTES:**

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**SECTION 5: FIRE-FIGHTING MEASURES**

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**FLASH POINT:**

F: No data available

C: No data available

**AUTOIGNITION TEMPERATURE:**

F: No data available

C: No data available

**NFPA HAZARD CLASSIFICATION**

HEALTH: 2

FLAMMABILITY: 1

REACTIVITY: 0

**HMS HAZARD CLASSIFICATION**

HEALTH: 2

FLAMMABILITY: 1

REACTIVITY: 0

**EXTINGUISHING MEDIA:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.**HAZARDOUS DECOMPOSITION PRODUCTS:** Hazardous decomposition products formed under fire conditions. - Carbon oxides**SECTION 5 NOTES:** Not flammable or combustible.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**PERSONAL PRECAUTIONS:** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.**ENVIRONMENTAL PRECAUTIONS:** Do not let product enter drains.**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Keep in suitable, closed containers for disposal.**SECTION 6 NOTES:**

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**SECTION 7: HANDLING AND STORAGE**

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**HANDLING AND STORAGE:** Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep container tightly closed in a dry and well-ventilated place.**SECTION 7 NOTES:**

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**RESPIRATORY PROTECTION:** For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**EYE PROTECTION:** Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**SKIN PROTECTION:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**WORK HYGIENIC PRACTICES:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**SECTION 8 NOTES:**

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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**APPEARANCE:** clear, colorless**PHYSICAL STATE:** liquid, clear**pH AS SUPPLIED:** 3.8-4.2**pH (Other):** No data available**BOILING POINT:****F:** No data available**C:** No data available**FREEZING POINT:****F:** No data available**C:** No data available**VAPOR PRESSURE (mmHg):** No data available

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**F:** No data available**C:** No data available**VAPOR DENSITY (AIR = 1):** No data available**SPECIFIC GRAVITY (H<sub>2</sub>O = 1):** No data available

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**F:** No data available**C:** No data available**EVAPORATION RATE:** No data available**SOLUBILITY IN WATER:** No data available**PERCENT SOLIDS BY WEIGHT:** ~19.2%(w/v)**MOLECULAR WEIGHT:** 192.14 g mol<sup>-1</sup>**VISCOSITY:** No data available

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**F:** No data available**C:** No data available**SECTION 9 NOTES:**

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**SECTION 10: STABILITY AND REACTIVITY**

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**STABILITY:** Stable under recommended storage conditions.**CONDITIONS TO AVOID (STABILITY):** No data available

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**INCOMPATIBILITY (MATERIAL TO AVOID):** Oxidizing agents, bases, reducing agents, nitrates**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** Hazardous decomposition products formed under fire conditions. - Carbon oxides**SECTION 10 NOTES:**

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**SECTION 11: TOXICOLOGICAL INFORMATION**

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**ACUTE TOXICITY:**

**ORAL LD50:** No data available  
**INHALATION LC50:** No data available  
**DERMAL LD50:** No data available

**SKIN CORROSION/IRRITATION:** No data available**SERIOUS EYE DAMAGE/EYE IRRITATION:** Rabbit - Irritating to eyes.**RESPIRATORY OR SKIN SENSITIZATION:** Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.**GERM CELL MUTAGENICITY:** No data available**CARCINOGENICITY:**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC.  
**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**REPRODUCTIVE TOXICITY:** No data available**SECTION 11 NOTES:**

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**SECTION 12: ECOLOGICAL INFORMATION**

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**TOXICITY**

No data available

**PERSISTENCE AND DEGRADABILITY**

No data available

**BIOACCUMULATIVE POTENTIAL**

No data available

**MOBILITY IN SOIL**

No data available

**PBT AND vPvB ASSESSMENT**

No data available

**SECTION 12 NOTES:**

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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**PRODUCT:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.**CONTAMINATED PACKAGING:** Dispose of as unused product.

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**SECTION 14: TRANSPORT INFORMATION**

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**U.S. DEPARTMENT OF TRANSPORTATION**

Not dangerous goods

**WATER TRANSPORTATION**

Not dangerous goods

**AIR TRANSPORTATION**

Not dangerous goods

**SECTION 14 NOTES:**

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**SECTION 15: REGULATORY INFORMATION**

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**OSHA HAZARDS:** Irritant.**SARA 302 COMPONENTS:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.**SARA 313 COMPONENTS:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.**SARA 311/312 HAZARDS:** Acute health hazard**MASSACHUSETTS RIGHT TO KNOW COMPONENTS:**

No components are subject to the Massachusetts Right to Know Act.

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS:**

	<u>CAS-No.</u>
Citric acid	5949-29-1
Sodium hydroxide	1310-73-2
Water	7732-18-5

**NEW JERSEY RIGHT TO KNOW COMPONENTS:**

	<u>CAS-No.</u>
Citric acid	5949-29-1
Sodium hydroxide	1310-73-2
Water	7732-18-5

**CALIFORNIA PROP. 65 COMPONENTS:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.**SECTION 15 NOTES:**

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**SECTION 16: OTHER INFORMATION**

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**DISCLAIMER:** The above information is believed to be correct but does not necessarily include all information and should be used only as a guide. The information in this document is based on our current knowledge and applies to the product with regard to appropriate safety precautions. This document does not represent any guarantee of the properties of the product. Rigaku Reagents will not be held liable for any damage resulting from handling or contact with the above product.