

**Manufacturer:** Spectrum Aquatics  
7100 Spectrum Lane  
Missoula, MT 59808  
800.791.8056

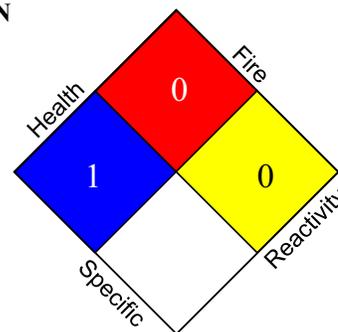
**EMERGENCY TELEPHONE:** 1-800-535-5053 USA & Canada  
24 hr INFOTRAC 1-352-323-3500 International

Trade Name: Spectra Clean System 1  
Product Use/Class: Specialty Cleaner

## SECTION II - HAZARDS IDENTIFICATION

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

B: Safety glasses, gloves



**\*\*\*EMERGENCY OVERVIEW\*\*\*:** Harmful if swallowed. May cause eye burns or skin irritation.

**Effects of Overexposure - Eye Contact:** Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes. May cause permanent eye damage if not treated immediately.

**Effects of Overexposure - Skin Contact:** Prolonged or repeated exposures can irritate or burn skin. Reaction may be more severe if there is skin abrasion(s). Allergic sensitization in susceptible individuals is possible.

**Effects of Overexposure - Inhalation:** Inhalation is not an expected hazard unless misted or heated to high temperatures. Prolonged mist or vapor inhalation may cause irritation to the nose, throat, and upper respiratory tract. Severe exposures can lead to a chemical pneumonitis.

**Effects of Overexposure - Ingestion:** Irritating to mouth, throat and stomach. May cause discomfort, nausea, vomiting, diarrhea if swallowed.

**Effects of Overexposure - Chronic Hazards:** Repeated skin contact may cause a persistent irritation or dermatitis. Erosion of tooth enamel is possible from long-term overexposure.

**Primary Routes of Entry:** Skin contact, skin absorption, inhalation, ingestion, eye contact

**Hazard classifications:**  
Eye irritation 2A

## SECTION II - HAZARDS IDENTIFICATION (continued)

**Hazard statements:** Warning  
 H303 May be harmful if swallowed  
 H316 Causes mild skin irritation  
 H319 Causes serious eye irritation



**Precautionary statements:**

P281 Use personal protective equipment as required.  
 P301 + P312 If swallowed: Call a poison center or doctor/physician if you feel unwell.  
 P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P337 + P313 If eye irritation persists: Get medical advice/attention.

## SECTION III - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Item</u>	<u>Chemical Name</u>	<u>CAS No.</u>	<u>% By Wt. (less than)</u>
01	Citric Acid	77-92-9	10%
-	Non-hazardous Ingredients	-	Balance

Citric Acid is "Generally Recognized as Safe" (GRAS) as a general food additive per 21 CFR 184.1033  
 Non hazardous ingredients in this product are considered non hazardous under the Federal Hazard Communication Standard 29 CFR 1910.1200. All ingredients are on the U.S. TSCA Inventory.

**Exposure Limits:**

<u>Item</u>	<u>TLV-TWA</u>	<u>TLV-STEL</u>	<u>PEL-TWA</u>	<u>PEL-CEILING</u>	<u>SKIN</u>
01	N.E.	N.E.	N.E.	N.E.	NO

(See Section 16 for abbreviation legend)

## SECTION IV - FIRST AID MEASURES

**First Aid - Eye Contact:** Remove contact lenses. IMMEDIATELY FLUSH EYES WITH WATER FOR AT LEAST 15 MINUTES, lifting lower and upper eyelids occasionally. Get medical attention immediately.

**First Aid - Skin Contact:** Wash with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

**First Aid - Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

**First Aid - Ingestion:** If swallowed, do NOT induce vomiting. Give victim a glass of water. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

## SECTION V - FIRE AND EXPLOSION INFORMATION

**Flash Point:** N.A. - Aqueous solution

**Flammable Limits: LEL:** N.A.      **UEL:** N.A.

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## SECTION V - FIRE AND EXPLOSION INFORMATION (continued)

**Extinguishing Media:** None required - Aqueous solution. Alcohol, foam, CO<sub>2</sub>, dry chemical, water fog may be used.

**Special Fire Fighting Procedures:** If storage containers are involved in fire, keep cool with water spray to prevent pressure build-up. As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear.

**Unusual Fire and Explosion Hazard:** None known. "Empty" containers retain some product residue (liquid and/or water vapor) and can be dangerous when pressurized. Bursting of containers can occur at elevated temperatures. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

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## SECTION VI - ACCIDENTAL RELEASE MEASURES

**Steps to be taken in case material is released or spilled:** Absorb spill with inert material (e.g. dry sand or earth) then place in a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways. Follow all government regulations.

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## SECTION VII - HANDLING AND STORAGE

**Handling:** Wash thoroughly after handling. Do not get into eyes, on skin or on clothing.

**Storage:** Keep container closed when not in use. Store in corrosion resistant containers. Store away from incompatible materials. Aqueous solutions of citric acid can, if in contact with reactive metals (iron, zinc, aluminum), over a period of time form hydrogen - an extremely flammable gas. Store under a controlled environment. Avoid excessive heat. Keep from freezing.

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## SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Good general ventilation should be sufficient to control airborne levels. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Respiratory Protection:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace condition warrant a respirator's use.

**Skin Protection:** Rubber, neoprene or polyvinyl chloride impervious gloves may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection. Consult your glove manufacturer for compatibilities.

**Eye Protection:** Wear chemical splash goggles. DO NOT WEAR CONTACT LENSES.

**Other Protective Equipment:** Wear suitable protective clothing to minimize and/or prevent contact. An eye-wash and safety shower should be present in the immediate area when handling this product.

**Hygienic Practices:** Wash hands before eating. Remove contaminated clothing and wash before reuse. Use only in well ventilated area. Follow all MSDS/label precautions even after containers are emptied because they may retain product residues. Avoid contact with eyes, skin and clothing.

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**SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Boiling Point:</b>	>212°F (100°C)	<b>Melting/Freezing Point:</b>	N.D.
<b>Odor:</b>	N.D.	<b>Appearance:</b>	Clear, pale-colorless
<b>Specific Gravity:</b>	1.04	<b>Solubility in Water:</b>	Complete
<b>Vapor Density:</b>	Heavier than air	<b>Vapor Pressure:</b>	N.D.
<b>Physical State:</b>	Liquid	<b>Odor Threshold:</b>	N.D.
<b>Evaporation Rate:</b>	<1 (Butyl Acetate = 1)	<b>pH @ 100 %:</b>	<2
<b>Viscosity:</b>	approx. 2 cps	<b>Coeff. of Water/Oil Dist.:</b>	N.D.

(See Section 16 for abbreviation legend)

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**SECTION X - STABILITY AND REACTIVITY**

**Stability:** This product is stable under normal storage conditions.

**Conditions to Avoid:** N.A.

**Incompatibility:** Strong bases, alkali metals, oxides of sulfur, strong oxidizers, strong reducing agents, caustic materials.

**Hazardous Decomposition or Byproducts:** Carbon dioxide, carbon monoxide

**Hazardous Polymerization:** Will not occur under normal conditions.

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**SECTION XI - TOXICOLOGICAL PROPERTIES**

**Threshold Limit Value:** LD 50 (ORAL-RAT) 11.7 g/kg (as dry material)  
LD 50 (SCU-RAT) 5500 mg/kg (as dry material)  
LD 50 (IPR-RAT) 883 mg/kg (as dry material)  
LD 50 (ORAL-MOUSE) 5040 mg/kg (as dry material)

**Carcinogenicity:** NTP: N.A. IARC Monographs: N.A. OSHA Regulated: N.A.

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**SECTION XII - ECOLOGICAL PROPERTIES**

**Ecological Information:** No information.

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**SECTION XIII - DISPOSAL CONSIDERATIONS**

**Disposal Method:** Follow all federal, state and local regulations.

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**SECTION XIV - TRANSPORTATION INFORMATION**

**UN Number:** Not listed **UN Proper Shipping Name:** Not Regulated (Citric acid solution)

**Marine Pollutant:** No

**DOT, TDG, IMDG, ICAO/IATA:** Not Regulated

**SECTION XV - REGULATORY INFORMATION****U.S. Federal Regulations as Follows:**

**OSHA:** Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

**CERCLA - SARA Hazard Category:** This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Immediate Health Hazard

**SARA Section 313:** This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

No SARA Section 313 components exist in this product.

**Toxic Substances Control Act (TSCA):** The chemical substances in this product are on the TSCA Section 8 Inventory.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No information is available.

**Canada Regulations as Follows:**

**WHMIS:** The Canadian Workplace Hazardous Materials Information System classification for this product is:

None - this is not a controlled product

Refer elsewhere in the MSDS for specific warnings and safe handling information. Refer to the employer's workplace education program.

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**SECTION XVI - OTHER INFORMATION**

**Date Prepared:** 01/20/2004

**Date Revised:** 12/01/2017

**Reason for Revision:** Update

**Previous Revision Date:** 07/01/2014

**Signature of Preparer:**



**Legend:** N.A. - Not Applicable

N.E. - Not Established

N.D. - Not Determined

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