

**SECTION 1 – MATERIAL AND MANUFACTURER IDENTIFICATION**

Product Identifier: Last Step  
 Product Use: Textile Rinse

**MANUFACTURER**

CTI (Chemical Technologies International Inc.)  
 P.O. Box 968  
 Rancho Cordova, CA 95742  
 Phone: (916) 638-1315 Fax: (916) 638-0712  
 Emergency Assistance Calls: Chemtrec (800) 424-9300 (U.S.A.) 24hrs.

**SECTION 2 – COMPOSITION / INFORMATION ON REPORTABLE HAZARDOUS**

<u>COMPONENT</u>	<u>CAS #</u>
1. Citric acid	77-92-9
2. IPA	67-63-0

(SEE SECTION 8 FOR EXPOSURE GUIDELINES)

**SECTION 3 – Hazards Identification**

Emergency Overview

Clear liquid  
 Irritating to respiratory and digestive tract, acute nervous system, eyes and skin, harmful if swallowed.

Potential Health Effects

Routes of entry: (skin: yes) (inhalation: yes) (ingestion: yes) (eye: yes)

**Inhalation:**

Excessive inhalation may cause irritation of the respiratory tract.

**Eye Contact:**

Vapors may irritate eyes. Direct or prolonged contact with eyes will be painful and irritating may also cause possible permanent damage.

**Skin Contact:**

Repeated exposure may cause skin irritation, drying, chapping.

**Ingestion:**

If swallowed can cause GI irritation.

**Chronic effects:** Not established.

**1. NFPA GUIDE**

HEALTH HAZARD	(BLUE)	0
FLAMMABILITY HAZARD	(RED)	1
REACTIVITY HAZARD	(YELLOW)	0
OTHER HAZARD	(WHITE)	

## SECTION 4 – FIRST AID MEASURES

**Inhalation:** Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If breathing stops administer artificial respiration. Get medical attention immediately.

**Eye Contact:** Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within several seconds is essential to achieve maximum effectiveness. Get medical attention immediately.

**Skin Contact:** Flush thoroughly with cool water while removing any contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation persists after washing.

**Ingestion:** Get medical attention immediately.

Do not induce vomiting. Never give anything by mouth to an unconscious person. Give large quantities of water and if available give several glasses of milk. If vomiting occurs spontaneously, keep airway clear and give more water.

## SECTION 5 – Fire Fighting Measures

Flashpoint:

Flammable Limits: Not Available

Auto ignition Temperature: Not Available

### General Hazard:

During a fire smoke may contain the original material in addition to toxic and or irritating compounds. Avoid heat sparks or open flame contains combustible liquid.

### Fire Fighting Instructions:

Use dry chemical or CO<sub>2</sub>. Use water (only to cool) nearby containers and structures exposed to fire. Direct water stream may spread fire. Keep people away from fire, isolate fire area and deny unnecessary entry.

### Fire fighting equipment:

Fire fighters should wear a self contained, positive pressure breathing apparatus and full protective clothing (NICS/MSHA APPROVED).

### Hazardous combustion products:

Hazardous combustion products may include and are not limited to ; carbon dioxide, carbon monoxide.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

Small Spills: Wipe or mop up and dispose of in DOT approved waste container.

Large Spills: Contain by diking with soil or other non-combustible absorbent material, then dispose into DOT approved waste container. Comply with all applicable governmental regulations on spill reporting, handling and disposal of waste.

Contain all spills or leaks to prevent discharge into the environment. All spills or releases should be reported to the appropriate local, state and federal agencies.

## SECTION 7 – PRECAUTIONS FOR SAFE HANDLING AND STORAGE

### Work and hygiene:

This product is professional strength product to be used by professionals only.

As with all chemicals, practice good industrial hygiene when handling this product. In other words, always work in a well-ventilated area and avoid inhalation of product dust, vapor or mist, do not ingest or have contact with your eyes or skin.

### Storage and handling:

Employees should be trained to handle this product safely. Store the product in a cool dry area away from ignition sources.

Loosen closures cautiously.

Storage temperature: store in cool dry place  
Storage pressure: Atmospheric  
Avoid excessive heat. Avoid storage with oxidizing or reducing agents, acids.

The manufacturer and seller warrant that this product conforms to its standard specifications when used according to directions. As the conditions of method of its use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for use of this product. Information contained herein is believed to be true but all statements and suggestions are made without any warranty, expressed or implied, regarding accuracy of the information. The hazards connected with the use of this material and the results to be obtained from the use thereof.

## SECTION 8 – EXPOSURE / PERSONAL PROTECTION

### EXPOSURE LIMITS

Exposure limits have not been established for this mixture. However limits for individual ingredients at 100% concentration by number listed in section 2 are listed below:

<u>COMPONENT #</u>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>		<b>NIOSH</b>	
	<b>TWA STEL</b>	<b>TWA</b>	<b>STEL</b>	<b>TWA</b>	<b>STEL</b>
1. Citric acid	15 mg/m3		10 mg/m3		
2. IPA	400ppm 500ppm				

#### Personal Protection:

To minimize exposure to all chemicals, including this product, use good industrial hygiene and common sense:  
Ventilation and engineering controls: Use only in well ventilated area. If necessary, use exhaust ventilation to insure adequate ventilation. Insure that water is readily available and that you are prepared to properly wash out your eyes should the need arise. (Refer to section 4).

Respiratory: Wear NIOSH/MSHA approved organic respirator when ventilation is not adequate or when the sufficiency of ventilation to maintain concentrations below exposure limits is in question.

Eye Protection: Wear safety goggles to protect against eye contact. See OSHA 29 CFR 1910.33

Skin: Wear chemical impervious gloves. Wear protective clothing appropriate for the task to prevent skin contact.

Other: One should always use chemicals with an awareness of the potential hazard of the effect on the human system.

## SECTION 9 – Physical and Chemical properties

Clear liquid with light odor.

PH: 4 in 1% solution

PH: 3.0 as shipped

Vapor pressure: not available

Vapor density: not available

Boiling point: not available

Freezing/Melting point: N/A

Solubility in water: soluble

Density:

Flammability: not established

Particle size: N/A

Evaporation rate: not available

Viscosity:

## SECTION 10 – Stability and Reactivity

Chemical Stability: Stable under ambient temperature and atmospheric pressure. Stable under recommended storage and handling conditions.

Conditions to avoid: Keep away from heat or excessive pressure.

Incompatibility with other materials: Although the mixture has no known incompatibilities, some components of this mixture are not compatible with acids, metals, oxidizing or reducing materials.

Hazardous decomposition products: There are no known hazardous decomposition materials of this mixture; some components of this mixture may liberate sulfur dioxide, carbon monoxide, carbon dioxide, and hydrogen sulfide.

Hazardous polymerization: Major components of this mixture show no hazardous polymerization.

## Section 11- Toxicological Information

Toxicological information has not been established on this mixture. However information for 100% concentrate of individual ingredients by number from section 2 are given here.

<u>Component #</u>	<u>Information</u>
1. Citric acid	Acute oral toxicityLD50 Rat: 3000 mg/kg
2. IPA	Acute oral toxicityLD50 Rat: 5,840 mg/kg Rabbit:13,000 mg/kg

## Section 12- Ecological Information

Ecological information not established on this mixture.

## Section 13- Disposal practices

Dispose of all waste, empty bottles and contaminated equipment in accordance with all applicable federal, state and local health and environmental regulations.

Do not dump into storm drains or any body of water. All disposal methods must be in compliance with all federal, State/ Provincial and local laws and regulations. Regulations may vary in different locations.

Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. The vendor has no control over the management practices or the processes by which the party who handles or uses this material. The information presented here pertains only to the product as shipped in its intended condition and recommended usage.

## Section 14- Transport information

Shipping Instructions as shipped are: ORMD/LTD QTY Exemptions Used 173.154 LTD QTY & ORM-D  
Consult 49 CFR to assure compliance with all applicable federal, state/provincial and local laws and regulations that may apply to you.

## Section 15- Regulatory Information

### US Federal Regulations:

OSHA standards require that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, MSDS sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this material safety data sheet (MSDS) available to your employees and those who handle or consume the product.

To aid our customers in complying with regulatory requirements regulatory information for components of this product are indicated below.

This mixture has *no established regulatory information* all regulatory information given is based on individual components of the mixture by component number.

1 No information given.

2

**SARA Concentr:** 1.0%, **OSHA:** Not carcinogenic, **IARC Rating:** 3, **NFPA Rating:** Health: 1, Flammability: 3, Reactivity: 0, **NIOSH Standard:** 76-142, **NIOSH/OSHA Guideline:** 81-123,

**State Lists:**

**Florida:** Components of this chemical are listed a toxic substance by the state of Florida.

**Massachusetts Haz. Substance codes:** 2,4,5,6, F9

**Pennsylvania Haz substance code:** E

## Section 16- Other Information

All information appearing herein is based upon data obtained from the manufacturer and /or recognized technical sources of each individual component. While the information is believed to be accurate, CTI makes no representations as to its accuracy or sufficiency. Conditions of use are beyond CTI's control and therefore users are responsible to verify this data under their own operating conditions to determine whether this product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance on information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.

### Legend:

### References:

ACGIH

Science Lab 11/6/08

Vi-Jon Laboratories, Inc. 2/1/07