



**SECTION 3 HEALTH HAZARDS**

<b>CHEMICAL NAME</b>	<b>%W/W</b>	<b>CAS NUMBER</b>
Citric Acid (Proprietary Formula)	<1	77-92-9

**SECTION 4 FIRST AID****Potential acute health effects:**

<b>Eyes:</b>	May cause irritation with redness and pain.
<b>Skin:</b>	May cause irritation with redness and pain.
<b>Inhalation:</b>	Inhalation may cause irritation.
<b>Ingestion:</b>	Ingestion may cause severe irritation, nausea, and vomiting.

**Medical Conditions Aggravated by Exposure:**

None known.

<b>Eye Contact:</b>	In case of contact, immediately flush eyes with cool running water. Lift and separate eyelids while flushing with plenty of water for at least 15 minutes. Get medical attention.
<b>Skin Contact:</b>	Wash with soap and water. Get medical attention if irritation occurs. Wash clothing before reuse. Destroy contaminated shoes.
<b>Inhalation:</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if symptoms develop.
<b>Ingestion:</b>	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Give plenty of water.

**SECTION 5 FIRE FIGHTING MEASURES**

<b>Fire Hazard Classification (OSHA/NFPA):</b>	0
<b>Extinguishing Media:</b>	As required for fire being fought.
<b>Special Fire Fighting Procedures:</b>	Use self-contained breathing apparatus.
<b>Hazardous combustion products:</b>	No known.

**SECTION 6 ACCIDENTAL RELEASE MEASURES****Personal Precautions, PPE, and Emergency Procedures:**

Wear protective clothing as described in Section 8 of this safety data sheet.

**Containment Procedures:** Stop the flow of material, if this is without risk. Wear appropriate protective equipment and clothing during clean-up. Do not allow the spilled product to enter public drainage system or open water courses.

**Clean-Up Procedures:** Sweep up or gather material and place in appropriate container for disposal. Wash spill area thoroughly. Wear appropriate protective equipment during cleanup. Dispose of collected material according to regulations.

## **SECTION 7** **HANDLING AND STORAGE**

**Handling:** Avoid contact with eyes, skin and clothing. Do not take internally. For industrial use only. Wash after handling. Don't breathe dust, vapor, or gas. Keep this and all chemicals out of reach of children.

**Storage:** Keep away from heat, sparks, and open flames. Prevent spills. Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Empty product containers may contain product residue, do not reuse.

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

**Ventilation System:** Always keep exposure below permissible exposure limits. In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

**Airborne Exposure Limits:** None Established.

**Personal Protection:** As prescribed in the OSHA Standard for Personal Protective Equipment (29 CFR 1920.132), employers must perform a Hazard Assessment of all workplaces to determine the need for, and selection of, proper protective equipment for each task performed.

**Eyes:** Wear face shield, safety glasses, or chemical goggles.

**Hands & Skin:** For prolonged or repeated handling, use impervious gloves. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron and boots are recommended.

**Respiratory:** If ventilation is not sufficient appropriate NIOSH/MSHA respiratory protection must be provided.

**Work Practices:** Eye wash fountain and emergency showers are recommended.

## **SECTION 9** **TYPICAL PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical Form:</b>	Liquid
<b>Color:</b>	Red
<b>Odor:</b>	Wintergreen
<b>Odor Threshold:</b>	NE
<b>pH:</b>	8.5+/-0.5
<b>Boiling Point:</b>	NE
<b>Melting Point:</b>	N/A
<b>Flash Point:</b>	>200 deg F

<b>Evaporation Rate (Butylacetate = 1)</b>	NE
<b>Flammability:</b>	Non-Flammable
<b>UEL:</b>	NE
<b>LEL:</b>	NE
<b>Vapor Pressure:</b>	NE
<b>Vapor Density:</b>	NE
<b>Specific Gravity (Water = 1):</b>	1.03 +/- .05
<b>Solubility Water:</b>	Complete
<b>Partition Coefficient:</b>	NE
<b>Auto-ignition Temperature:</b>	NE
<b>Decomposition Temperature:</b>	NE
<b>Viscosity (CPS):</b>	NE

## **SECTION 10** **STABILITY AND REACTIVITY**

<b>Stability:</b>	This product is stable under normal temperatures and pressures.
<b>Incompatibility:</b>	Strong Oxidizers and strong acids.
<b>Decomposition Products:</b>	No Known hazardous products.
<b>Conditions to Avoid:</b>	Sparks/flames/high heat.

## **SECTION 11** **TOXICOLOGICAL PROPERTIES**

Raw Material	Test	Result	Route	Species
Citric Acid (77-92-9)	LD50	>5000 mg/kg	Oral	Mouse

See Section 4 for symptoms.

**CARCINOGENICITY:**  
No known carcinogens, mutagens, or reproductively toxic ingredients

## **SECTION 12** **ECOLOGICAL INFORMATION**

Raw Material	Test	Result	Time	Species
Citric Acid (77-92-9)	LC50	440 mg/L		Fish

**PERSISTENCE & DEGRADABILITY:**  
NE

**BIOACCUMULATION:**  
NE

**MOBILITY**  
NE

**SECTION 13** **DISPOSAL CONSIDERATIONS**

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use, or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose container and unused contents in accordance with federal, state, and local requirements.

**SECTION 14** **TRANSPORT INFORMATION**

Not Regulated

**SECTION 15** **REGULATORY INFORMATION****US FEDERAL REGULATIONS****SARA (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):**

SARA 302 EXTREMELY HAZARDOUS SUBSTANCES LIST: NA

SARA 312 HAZARD CATEGORY: NA

SARA 313 TOXIC CHEMICALS LIST: NA

**CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT):** NA

**RCRA (RESOURCE CONSERVATION AND RECOVERY ACT) LISTED HAZARDOUS WASTES:** NA

**CWA (CLEAN WATER ACT) LISTED SUBSTANCES:** NA

**FDA (FOOD AND DRUG ADMINISTRATION):** NA

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** NA

**NFPA HAZARD INFORMATION SIGN****[0] HEALTH HAZARD (BLUE DIAMOND)**

- 4 – DEADLY
- 3 – EXTREME DANGER
- 2 – HAZARDOUS
- 1 – SLIGHTLY HAZARDOUS
- 0 – NORMAL MATERIAL

**[0] REACTIVITY HAZARD (YELLOW DIAMOND)**

- 4 – MAY DETONATE
- 3 – SHOCK AND HEAT MAY DETONATE
- 2 – VIOLENT CHEMICAL CHANGE
- 1 – UNSTABLE IF HEATED
- 0 – STABLE

**[0] FIRE HAZARD (RED DIAMOND)**

FLASH POINTS:

**[ ] SPECIFIC HAZARD (WHITE DIAMOND)**

OXY                      OXIDIZER

4 – BELOW 73 F	ACID	ACID
3 – BELOW 100 F	ALK	ALKALI
2 – BELOW 200 F	COR	CORROSIVE
1 – ABOVE 200 F	W	USE NO WATER
0 – WILL NOT BURN		

## **SECTION 16** **OTHER INFORMATION**

THIS INFORMATION IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EXPRESSED OR IMPLIED, IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.