



**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No.	weight-%
Citric acid	77-92-9	100

**4. FIRST AID MEASURES****First aid measures**

<b>Eye contact</b>	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. If eye irritation persists: Get medical advice/attention.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing and shoes before reuse. If skin irritation persists, call a physician.
<b>Inhalation</b>	Remove to fresh air. Administer oxygen if breathing is difficult. Consult a physician if necessary.
<b>Ingestion</b>	Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** See Section 11 for symptom information.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media**

Dry chemical. Water spray (fog). Carbon dioxide (CO<sub>2</sub>). Foam.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**

No information available.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers with flooding quantities of water until well after fire is out.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use personal protection recommended in Section 8. Ensure adequate ventilation, especially in confined areas.

**For emergency responders** Isolate area. Keep unnecessary personnel away.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional ecological information. Prevent entry into waterways, sewers, basements or confined areas.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Collect spillage. Sweep up and shovel into suitable containers for disposal. Following product recovery, flush area with water.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on safe handling** Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Use only in well-ventilated areas. Avoid breathing dust, vapors, or mist. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Do not allow water to get into container.

**Incompatible materials** Alkali. Metal nitrates.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters**

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Appropriate engineering controls**

**Engineering Controls** Showers, eyewash stations, ventilation system.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Splash proof chemical goggles and face shield.

<b>Skin and body protection</b>	Wear protective Neoprene™ gloves or rubber gloves. Normal work clothing (long sleeved shirt and long pants) is recommended. Apron recommended.
<b>Respiratory protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
<b>General Hygiene Considerations</b>	Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing and shoes before reuse. Do not eat, drink or smoke when using this product.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state</b>	Powder	<b>Odor</b>	None
<b>Appearance</b>	Crystalline	<b>Odor threshold</b>	No information available
<b>Color</b>	White	<b>Remarks • Method</b>	(5% solution)
<b>Property</b>	<b>Values</b>		
<b>pH</b>	1.8		
<b>Melting point/freezing point</b>	153 °C / 307 °F		
<b>Boiling point / boiling range</b>	175 °C / 347 °F		
<b>Flash point</b>	No information available		
<b>Evaporation rate</b>	0		
<b>Flammability (solid, gas)</b>	No information available		
<b>Flammability Limit in Air</b>			
<b>Upper flammability limit:</b>	No information available		
<b>Lower flammability limit:</b>	No information available		
<b>Vapor pressure</b>	No information available		
<b>Vapor density</b>	No information available		
<b>Bulk density</b>	0.902 g/cc		
<b>Water solubility</b>	162 g/100 ml @ 25°C		
<b>Solubility in other solvents</b>	No information available		
<b>Partition coefficient</b>	No information available		
<b>Autoignition temperature</b>	345 °C		
<b>Decomposition temperature</b>	> 170 °C		
<b>Kinematic viscosity</b>	No information available		
<b>Dynamic viscosity</b>	No information available		
<b>Explosive properties</b>	No information available		
<b>Oxidizing properties</b>	No information available		
<b>VOC Content (%)</b>	0.00%		

**10. STABILITY AND REACTIVITY**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

None known.

**Incompatible materials**

Alkali. Metal nitrates.

**Hazardous Decomposition Products**

Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**

<b>Inhalation</b>	Inhalation of dust in high concentration may cause irritation of respiratory system.
<b>Eye contact</b>	Irritating to eyes. Extended eye exposure may result in corneal damage.
<b>Skin Contact</b>	Irritating to skin.
<b>Ingestion</b>	Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Citric acid 77-92-9	= 3000 mg/kg ( Rat ) = 3 g/kg ( Rat )	-	-

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.
<b>Numerical measures of toxicity - Product Information</b>	
<b>Unknown Acute Toxicity</b>	0% of the mixture consists of ingredient(s) of unknown toxicity
<b>The following values are calculated based on chapter 3.1 of the GHS document</b>	
<b>Oral LD50</b>	3,000.00 mg/kg

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Harmful to aquatic life with long lasting effects

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Citric acid 77-92-9	-	1516: 96 h Lepomis macrochirus mg/L LC50 static	120: 72 h Daphnia magna mg/L EC50

### Persistence and degradability

No information available.

### Bioaccumulation

Chemical Name	Partition coefficient
Citric acid 77-92-9	-1.72

### Mobility

Soluble in water.

**Other adverse effects** No information available

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Dispose of in accordance with federal, state and local regulations.

## 14. TRANSPORT INFORMATION

**DOT** Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

**TSCA** Complies

**DSL/NDSL** Complies

**EINECS/ELINCS** Complies

### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### SARA 311/312 Hazard Categories

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### US State Regulations

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated by the right-to-know regulations

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not Applicable

**16. OTHER INFORMATION**

<b>NFPA</b>	Health hazards	1	Flammability	0	Instability	0	<b>Physical and Chemical Properties</b>
							None
<b>HMIS</b>	Health hazards	1	Flammability	0	Physical hazards	0	<b>Personal protection</b>
							B (safety glasses, gloves)

Prepared By Technical Department

Issue Date 19-May-2014

Revision Date 27-Jan-2023

Version 1

**Revision Note**

Company name update.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The health hazards given on this SDS apply to this product in its concentrated form (as supplied) and may differ significantly at use dilution. The signs and symptoms of exposure apply only to negligence in handling or misuse of the concentrated product and not to the routine exposure of the diluted product under conditions of ordinary use.

**End of Safety Data Sheet**