

1. IDENTIFICATION

Product Name	Citric Acid
Recommended use	Chemical Synthesis
Supplier	Valudor Products, LLC 179 Calle Magdalena Suite 100 Encinitas CA 92024 (760) 635 8500
Emergency Telephone	800-535-5053 (Infotrac)

2. HAZARD IDENTIFICATION

Classification

This product is considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Eye Damage/Irritation	Category 2A
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Label Elements

GHS Pictograms



Signal Word
Hazard Statements
Precautionary Statements – Prevention
 Response
Hazards not other classified

Warning
 Causes serious eye irritation
 Wash thoroughly after handling
 Wear eye protection/face protection
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention
 None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance

Chemical Name	Citric Acid
Formula	C ₆ H ₈ O ₇
Molecular weight	192.12 g/mol
Cas No.	77-92-9
Concentration	95-100%

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact	Immediately rinse with plenty of water. Remove contact lenses, if present and easy to do so. Keep eye wide open while rinsing. Continue rinsing for 15 minutes. Call a doctor/physician if irritation persists
Skin Contact	Wash off immediately with plenty of water. Remove all contaminated clothes and shoes. If skin irritation persists, call a doctor/physician
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.
Ingestion	Do not induce vomiting without medical advice. Rinse mouth with water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician

Most important symptoms/effects, acute and delayed

Symptoms	No information available
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5. FIRE-FIGHTING MEASURES

Suitable extinguishing Media Dry chemical, foam, water spray, carbon dioxide

Specific Hazards Arising from the chemical

Hazardous combustion products Thermal decomposition can lead to the release of irritation or toxic gases and vapors; including and not limited to:
Carbon Oxides

Protective equipment and precautions for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Personal precautions Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use personal protection recommended in Section 8. Ensure adequate ventilation.

Methods and materials for containment and cleanup

Methods for clean-up Sweep or vacuum up and place in an appropriate closed container. Keep unauthorized personnel away. Avoid generating dust.

Environmental Precautions Prevent entry into waterways or sewers

7. HANDLING AND STORAGE

Precautions for safe handling

Do not breathe dust. Avoid contact with eyes, skin and clothing. Wear eye/face protection. Do not use in areas without adequate ventilation. Use personal protective equipment recommended in section 8. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. Clean equipment and work area regularly.

Conditions for safe storage, including any incompatibilities

Store in a cool/low-temperature, well-ventilated, dry place. Keep containers closed and labeled when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the regional specific regulatory bodies

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Consider the potential hazards of this material, applicable exposure limits, job activities and other substances in the work place when designing controls and selecting personal protective equipment.

Personal Protective Equipment

Eye/face protection	Wear chemical safety goggles
Skin protection	Choose the appropriate protective clothing and gloves based on the tasks being performed to avoid exposure to skin. Wear protective gloves
Respiratory protection	Not required under normal circumstances. If exposure limits are exceeded or if irritation or other symptoms are experienced use a NIOSH/MSHA approved respirator
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practices. Do not eat, drink or smoke when using this product.

9. PHYSICAL and CHEMICAL PROPERTIES

Appearance	Colorless to White Crystalline
Physical state	Solid
Odor	None
Odor threshold	No information available
pH	2.1 (0.1 M concentration)
Melting point / freezing point	153 C
Boiling point / Boiling range	Not applicable
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability	No information available
Flammability or explosive limits	
Upper	No information available

Lower	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	1.665
Solubility in water	Soluble
Partition coefficient	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available

10. STABILITY AND REACTIVITY

Reactivity	None known under normal conditions.
Chemical stability	Stable under ordinary conditions of use and storage.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Avoid dust formation. Avoid exposure to moisture.
Incompatible materials	Strong oxidizers. Strong Bases. Nitrates, Metals
Hazardous decomposition products	Hazardous combustion can lead to the release of irritating gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Skin contact	May cause skin irritation
Eye contact	Causes serious eye irritation
Inhalation	May cause irritation of respiratory tract
Ingestion	May be harmful if swallowed

Symptoms related to the physical chemical and toxicological characteristics

No information available

Delayed and immediate effects and also chronic effects form short and long-term exposure

Skin damage/irritation	Not classified
Eye damage/irritation	Causes serious eye irritation
Sensitization	Not classified
Mutagenic effects	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT – single exposure	Not classified
STOT – repeated exposure	Not classified
Aspiration hazard	Not classified

Acute Toxicity

Component information

Component	Cas-No	LD50 Oral	LD50 Dermal	LC50 Inhalation
Citric Acid	77-92-9	5,400 mg/kg	2,000 mg/kg	-

12. ECOLOGICAL INFORMATION

Ecotoxicity Should not be released to environment

Component	Freshwater Fish	Freshwater Algae	Water Flea
Citric Acid 77-92-9	LC50: 440 mg/L 96h (<i>Leuciscus idus</i>)	640 mg/L 7 d (<i>Green algae</i>)	EC50: 120 mg/L 72 h (<i>Daphnia magna</i>)

Persistence and degradability No information available

Bioaccumulative potential No information available

Mobility in soil No information available

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Processing, use or contamination of this product may occur during product use. Accordingly, it is the responsibility of the user to determine the proper disposal methodologies. Consult the appropriate state, regional or local regulations to ensure complete and accurate classification. Dispose of contaminated packaging in accordance with local regulations.

14. TRANSPORT INFORMATION

DOT Not regulated
IATA Not regulated
IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Listed
DSL	Listed

US Federal Regulations

TSCA section 12(b) Export Notification
 Not regulated

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA).
Not applicable

SARA 311/312 Hazard Categorization

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Pressure	No
Reactivity	No

CERCLA/SARA 302 & 304

Section 302 & 304 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). Not applicable

CWA (Clean Water Act)

Not applicable

US State Regulations

California Proposition 65

This product does not contain any proposition 65 chemicals

16. OTHER INFORMATION

NFPA Ratings Health: 2 Flammability: 0 Reactivity: 0

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Revision Information Creation

Disclaimer

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