Safety Data Sheet · OSHA HCS 2024

Citric Acid Anhydrous - ACS Reagent Grade

ACS Reagent

Standard	Revised	Emergency
OSHA HCS 2024 · GHS Rev. 7	2026-11-12	Chemtel 1-800-255-3924 (24/7)

1 Identification

Product Identifier	Citric Acid Anhydrous - ACS Reagent Grade
Grade	ACS Reagent
CAS Number	77-92-9
Chemical Formula	C6H8O7
Molecular Weight	192.12 g/mol
Manufacturer	Alliance Chemical 204 South Edmond Street, Taylor, TX 76574
Emergency Phone	Chemtel 1-800-255-3924 (24/7)
Recommended Use	Industrial / laboratory chemical. See Section 7.
Restrictions on Use	No restrictions identified beyond the conditions of safe use in Sections 7 and 8.

2 Hazard Identification



Irritant / harmful

Classification	Serious eye damage/eye irritation, Category 2A Specific target organ toxicity, single exposure, Category 3 (respiratory tract irritation)
Signal Word	**Warning**
Hazard Statements	H319 Causes serious eye irritation H335 May cause respiratory irritation

Precautionary Statements

P261 Avoid breathing dust, fume, gas, mist, vapors or spray.

P264 Wash hands and face thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves, protective clothing, and eye/face protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice or attention.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents and container in accordance with local, regional, national, and international regulations.

Classification, hazard (H) and precautionary (P) statements and pictograms per OSHA HCS 2024 (29 CFR 1910.1200, Appendices A–C), aligned with GHS Rev. 7.

3 Composition / Information on Ingredients

Component	CAS No.	Formula	Concentration
Citric acid	77-92-9	C6H8O7	100%

Concentrations are nominal; lot-specific values appear on the Certificate of Analysis. Components not contributing to classification are omitted.

4 First-Aid Measures

Eyes
Rinse with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention immediately.

Skin
Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing. Wash with soap. Get medical attention immediately.

Inhalation
Move person to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.

Ingestion
Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

Most Important Symptoms and Effects
Eye contact causes irritation: redness, pain and tearing.

Inhalation may irritate the nose, throat and respiratory tract (coughing, sore throat).

Immediate Medical Attention and Special Treatment
Treat symptomatically. Get medical attention if symptoms develop or persist.

5 Fire-Fighting Measures

Suitable Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical, or CO2. Use measures appropriate to local circumstances.

Unsuitable Extinguishing Media
Do not use a solid water stream as it may scatter and spread fire.

Specific Hazards Arising from the Chemical
Containers may rupture when heated.

Protective Equipment
Wear self-contained breathing apparatus and full protective clothing.

Hazardous Combustion Products
Carbon monoxide and carbon dioxide.

6 Accidental Release Measures

Personal Precautions
Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental Precautions
Prevent leakage or spillage from entering drains, sewers, or waterways.

Containment & Cleanup
Sweep or vacuum up, avoiding dust. Collect in appropriate waste container. Dispose per applicable regulations.

7 Handling and Storage

Safe Handling	Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use.
Safe Storage	Store in a cool, dry, well-ventilated area. Keep away from incompatible materials (see Section 10). Keep containers tightly closed.
Specific Storage Precautions	Keep containers tightly closed in a cool, dry, well-ventilated place away from sunlight and incompatible materials. Polypropylene packaging is suitable. Avoid dust formation when handling.

8 Exposure Controls / Personal Protection

Occupational Exposure Limits

No established occupational exposure limits.

Engineering Controls	Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.
Eye/Face Protection	Wear chemical safety goggles or face shield.
Skin Protection	Wear chemical-resistant gloves and protective clothing.
Respiratory Protection	Use a NIOSH-approved respirator (N95/P100 for particulate, organic vapor or acid gas cartridge as appropriate to the substance) when exposure limits may be exceeded or visible mist or dust is generated.

9 Physical & Chemical Properties

Appearance	White crystalline powder
Odor	Odorless
Odor Threshold	No data available
pH	No data available
Melting Point / Freezing Point	307 °F (anhydrous) (NTP, 1992)
Boiling Point	Decomposes (NTP, 1992)
Flash Point	100 °C
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Upper/Lower Flammability or Explosive Limits	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Relative Density	No data available
Solubility	greater than or equal to 100 mg/mL at 72 °F (NTP, 1992)
Partition Coefficient (n-octanol/water)	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Particle Characteristics	No data available
Density	1.54 g/cm^3 at 68 °F (USCG, 1999)

Values shown reflect product-specific canonical data. Lot-specific ranges may vary; see the Certificate of Analysis for the shipped lot.

10 Stability and Reactivity

Reactivity	Not reactive under normal conditions of use and storage.
Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing conditions.
Conditions to Avoid	Excess heat (decomposes above about 175 °C), moisture, dust formation, direct sunlight.
Incompatible Materials	Strong oxidizing agents; strong bases; reducing agents; nitrates.
Hazardous Decomposition Products	Carbon monoxide and carbon dioxide.

11 Toxicological Information

See Section 2 for GHS hazard classification.

Likely Routes of Exposure	Inhalation, skin contact, eye contact, ingestion.
Symptoms	Eye contact causes irritation: redness, pain and tearing. Inhalation may irritate the nose, throat and respiratory tract (coughing, sore throat).
Delayed and Chronic Effects	No delayed or chronic effects identified beyond the classification in Section 2.
Numerical Measures of Toxicity	No data available

Carcinogen Classification

Agency	Status
IARC	Not listed as carcinogen.
NTP	Not listed as carcinogen.
OSHA	Not listed as carcinogen.

12 Ecological Information

Ecotoxicity	Aquatic invertebrates EC50: 160 mg/L (48 h, Carcinus maenas (shore crab; crustacean, not Daphnia))
Persistence & Degradability	Not persistent — Readily biodegradable (66–67% ThBOD in 5 d)
Bioaccumulative Potential	log Kow −1.64, BCF 3 (estimated; low)
Mobility in Soil	Very high soil mobility (estimated Koc 10)

13 Disposal Considerations

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

14 Transport Information

Not regulated for transport under US DOT 49 CFR Subchapter C, IMDG, or IATA DGR.

15 Regulatory Information

Inventory / List	Status
California Proposition 65	Not listed
US EPA TSCA Active Inventory	Listed
EPCRA SARA 313 (TRI)	Not listed

SARA 311/312 hazard categories correspond to the GHS classification in Section 2. Data retrieved as of: California Proposition 65 2026-11-02; US EPA TSCA Active Inventory 2026-11-02; EPCRA SARA 313 (TRI) 2026-11-02.

16 Other Information

Revision Date	2026-11-12
Format	16-section format per OSHA HCS 2024 (29 CFR 1910.1200, Appendix D), aligned with GHS Rev. 7.

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