

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name Citric Acid, Anhydrous

CAS number 77-92-9

Synonyms No information available.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Laboratory chemicals

1.3 Details of the supplier of the safety data sheet

Company Lab Alley, LLC
12501 Pauls Valley Road
Austin, Texas 78737
U.S.A.

Telephone 512-668-9918

Fax 512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Eye irritation Category 2A

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word	Warning
Hazard statements	Causes serious eye irritation.
Precautionary statements	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. 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.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

May form combustible dust concentrations in air (during processing).

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Citric Acid, Anhydrous	-	77-92-9	100%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists. If breathing difficult, give oxygen.
In case of skin contact	Wash affect area with soap and water. Rinse thoroughly. Seek medical attention if irritation, discomfort or vomiting persists.
In case of eye contact	Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Seek medical attention if irritation persists or if concerned.
If swallowed	Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort or vomiting persists.

4.2 Most important symptoms and effects, both acute and delayed

Irritation, Nausea, Headache, Shortness of breath.

4.3 Indication of any immediate medical attention and special treatment needed

If seeking medical attention, provide SDS document to physician.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.
Unsuitable extinguishing media	No information available.

5.2 Specific hazards arising from the substance or mixture

Combustion products may include carbon oxides or other toxic vapors. Thermal decomposition can lead to release of irritating gases and vapors. Avoid generating dust; fine dust disperse in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.3 Special protective equipment and precautions for firefighters

Use NIOSH-approved respiratory protection/breathing apparatus. Move product containers away from fire or keep cool with water spray as a protective measure, where feasible. Use spark-proof tools and explosion-proof equipment.

5.4 Further information

Flash Point	No data available.
Autoignition Temperature	No information available.

Explosion limits

Upper	No data available.
Lower	No data available.
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

NFPA

Health	Flammability	Instability	Physical hazards
1	0	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Transfer to a disposal or recovery container. Use spark-proof tools and explosion-proof equipment. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent.

6.2 Environmental precautions

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13.

6.3 Methods and materials for containment and cleaning up

If in a laboratory setting, follow Chemical Hygiene Plan procedures. Collect liquids using vacuum or by use of staff/contractor. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Minimize dust generation and accumulation. Wash hands after handling. Avoid dispersal of dust in the air (i.e., clearing dust surface with compressed air). Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powder can build static electricity charges when subjected to the friction of transfer and mixing operations. Follow good hygiene procedures when handling chemical materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. If in a laboratory setting, follow Chemical Hygiene Plan. Use only in well ventilated areas. Avoid generation of dust or fine particulate. Avoid contact with eyes, skin and clothing.

Hygiene measures

The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in a cool location. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store away from foodstuffs. Store away from oxidizing agents. Store in cool, dry conditions in well sealed containers. Keep container tightly sealed.

Incompatibilities

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

No information available.

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits - OELs) indicated above. Use under a fume hood. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Personal protective equipment

Eye/face protection

Safety glasses with side shields or goggles.

Skin and body protection

The glove material has to be impermeable and resistant to the product/the substance/the preparation being use/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Respiratory protection

Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	White
Odor	No information available
Odor Threshold	No information available
pH	No information available

Melting Point/Range	No information available
Boiling Point/Range	No information available
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	
Upper	No data available.
Lower	No data available.
Vapor Pressure	No information available
Vapor Density	No information available
Density	No information available
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	C6H8O7
Molecular Weight	192.13
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information

No information available

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available

10.2 Chemical stability

No decomposition if used and stored according to specifications

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

Store away from oxidizing agents, strong acids or bases.

10.5 Incompatible materials

Oxidizers, sulfuric and nitric acid. Strong acids. Strong bases.

10.6 Hazardous decomposition products

Oxides of carbon and irritating and toxic gases/fumes. Carbon oxides (CO, CO₂)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Citric Acid, Anhydrous	6730 mg/kg (rat)		

Skin corrosion/irritation

No information available

Serious eye damage/eye irritation

Classified as an eye irritant.

Respiratory or skin sensitization

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Citric Acid, Anhydrous	77-92-4	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

No information available.

Specific target organ toxicity - repeated exposure

No information available

Reproductive toxicity

No information available

Chronic effects

No information available

11.2 Additional Information

No information available

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results
Citric Acid, Anhydrous	LC50	Fish (L. Macrochius)	1516 mg/L 96h

12.2 Persistence and degradability

Readily degradable in the environment.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

Not regulated

IMDG

Not regulated

IATA

Not regulated

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Listed

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not listed

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Listed, Acute Health Hazard

SARA 313 (TRI reporting)

Not listed

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not listed

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not listed

Safe Drinking Water Act

Not listed

**FEMA Priority Substances Respiratory Health and Safety in the Flavor
Manufacturing Workplace**

Not listed

US state regulations

US. Massachusetts RTK - Substance List

Not listed

US. New Jersey Worker and Community Right-to-Know Act

Not listed

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed

California Proposition 65

Not listed

SECTION 16: Other information

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SECTION 17: Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.