

Material Safety Data Sheet

Product Name Citric Acid Anhydrous

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification:

Product Description: Citric Acid Anhydrous

Synonyms: 2-Hydroxy-1,2,3-propanetricarboxylic acid

CAS-No: 77-92-9

EC-No.: 201-069-1

Molecular Formula: C₆H₈O₇

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

Recommended Use: Laboratory reagents, analysis, manufacturing substance

1.3. Details of the supplier of the safety data sheet:

- **Company** ASES CHEMICAL WORKS
Brahm Bagh, Jalori Gate
Jodhpur - 342001 Rajasthan-India
Ph: +91-9636889954
Email : ecom@ases.in Website : www.ases.in

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008

Eye irritation, Category 2, H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label Elements:

Labeling according Regulation (EC) No 1272/2008

Pictogram



Signal word Warning

Hazard statement(s)

H319 Causes serious eye irritation.

Precautionary statement(s)

Response

P264 Wash skin thoroughly after handling

P280 Wear eye/face protection

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

P337 + P313 If eye irritation persists, get medical advice/attention.

Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. **Substances:** Citric acid anhydrous

3.2. **Mixtures:**

Component	CAS-No	EC-No.	Weight %
Citric acid anhydrous	77-92-9	201-069-1	> 95

SECTION 4: FIRST AID MEASURES

4.1. **Description of first aid measures:**

- **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

- **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

If Contact with skin

- Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

- Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

- Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed:

4.2. Irritant effects, pain, Bloody vomiting

Indication of any immediate medical attention and special treatment needed:

4.3. No information Available

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media:

5.1. **Suitable Extinguishing Media-** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. **Special hazards arising from the substance or mixture:**

Combustible.

Risk of dust explosion.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3. **Advice for firefighters:**

Special protective equipment for firefighters:

In the event of fire, wear self-contained breathing apparatus.

5.4 **Further Information:**

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

6.2. Environmental precautions:

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up:

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions. Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling:

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

7.2. Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters: Components with workplace control parameters

8.2. Exposure Controls:

Appropriate Engineering Controls:

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Personal Protective Equipment:

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye & Face Protection- Safety glasses

Hand Protection – Use nitrile rubber gloves

Body Protection-Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection-

Required when dusts are generated. Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances. The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Environmental Exposure Controls-

Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

- **Appearance:** White
- **Physical State:** Solid
- **Odor:** Odorless
- **Odor Threshold:** No data available
- **pH:** 1.7
- **Melting Point:** 153 °C
- **Critical Temperature:** No data available
- **Vapor Pressure:** < 0.1 hPa at 20 °C
- **Relative Vapor Density:** No data available
- **Density:** 1.665 g/cm³ at 18°C
- **Auto-Ignition Temperature:** 1000°C / 1010°C
- **Decomposition Temperature:** 175°C
- **Volatility:** No data available
- **Bulk Density:** ca.560 kg/m³
- **Viscosity, dynamic:** No data available
- **Viscosity, Kinematic:** No data available
- **Water/Oil Dist. Co eff.:** No data available
- **Partition Co-efficient: n-octanol/Water:** log Pow: -1.64 at 20 °C
- **Ionicity (in Water):** No data available
- **Lower Explosion Limit:** No data available
- **Upper Explosion Limit:** No data available
- **Boiling Point/Range:** No data available
- **Flash Point:** 345°C
- **Water Solubility:** 383 g/l at 25°C
- **Molecular Weight:** 192.13 g/mol
- **Molecular Formula:** C₆H₈ O₇

SECTION 10: STABILITY AND REACTIVITY

10.1. **Reactivity:** Risk of dust explosion.

10.2. Chemical stability:

The product is chemically stable under standard ambient conditions (room temperature).

10.3. **Possibility of hazardous reactions:** Violent reactions possible with: Metals, Oxidizing agents, Bases, Reducing agents

10.4. **Conditions to avoid:** Temperatures above melting point.

10.5. **Incompatible materials:** Metals

10.6. **Hazardous decomposition products:** No data available

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Oral toxicity

LD50 oral, Mouse, 5.400 mg/kg

Other Relevant Toxicity Information

We are not aware of any toxicology data.

11.2 Further Information:

Substance which occurs in the human body under physiological conditions.

Other dangerous properties cannot be excluded.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

Toxicity to fish

LC50 *Leuciscus idus* (Golden orfe): 440 - 760 mg/l; 96 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates

EC5 *E.sulcatum*: 485 mg/l; 72 h (Lit.)

EC50 *Daphnia magna* (Water flea): ca. 120 mg/l; 72 h (IUCLID)

Toxicity to algae

IC5 *Scenedesmus quadricauda* (Green algae): 640 mg/l; 7 d

(maximum permissible toxic concentration) (Lit.)

IC5 *M.aeruginosa*: 80 mg/l; 8 d

(maximum permissible toxic concentration) (Lit.)

Toxicity to bacteria

EC5 *Pseudomonas putida*: > 10,000 mg/l; 16 h

(maximum permissible toxic concentration) (Lit.)

12.2 Persistence and degradability:

Remarks : no data available

12.3 Bioaccumulate potential:

Remarks : no data available

12.4 Mobility in soil:

No data available

12.5 Results of PBT and vPvB assessment

Remarks : no data available

12.6 Other adverse effects:

Remarks : no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the national and local regulations.

Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

SECTION 14: Transport information

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
14.1 UN number	Not classified as dangerous in the meaning of transport regulations.		
14.2 Proper shipping name	Not classified as dangerous in the meaning of transport regulations.		
14.3 Class	Not classified as dangerous in the meaning of transport regulations.		
14.4 Packing group	Not classified as dangerous in the meaning of transport regulations.		
14.5 Environmentally hazardous	Not classified as dangerous in the meaning of transport regulations.		
14.6 Special precautions for user	Not classified as dangerous in the meaning of transport regulations.		

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National legislation. Storage class 10 - 13

15.2 Chemical safety assessment: For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H319 Causes serious eye irritation.

Training advice : Provide adequate information, instruction and training for operators.

Labeling

Pictogram



Signal word **Warning**

Hazard statement(s)

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Precautionary statement(s)

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P280 Wear eye/face protection

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Disclaimer:

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and ASES CHEMICAL WORKS assume no liability resulting from its use.