

Material safety data sheet

According to EU Regulation 1907/2006 in the current version

CITRIC ACID

1. Identification of the substance/mixture and company

Trade name: Citric Acid
I.N.C.I. Citric acid
CAS No. : 5945-29-1
REACH pre-registration No. na
Utilization: Cleansing products, shampoos, bath soaps and detergents.
Supplier company identification: Elemental SRL, Piața Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania
Tel/Fax: +40259-436.755, www.ellemental.com
Emergency: RO: număr național pentru cazuri de urgență: 021 3183606 Institutul de
Sănătate Publică București.
International emergency number: +49 180 2273-112

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

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word: Warning

Hazard statement(s)

H319 Causes serious eye irritation.

H335 May cause respiratory irritation

Precautionary statement(s)

P264 Wash hand thoroughly after handling.

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

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

P337 + P317 If eye irritation persists: Get medical help.

2.3 Other hazards

None

3. Declaration of ingredients

3.1. Substances

Common Name: Citric Acid Monohydrate

Synonym(s): 2-hydroxypropane-1,2,3-tricarboxylic acid

Formula: C₆H₈O₇·H₂O

Concentration 100%

3.2. Mixtures

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Non concerned

4. First aid measures

4.1 Description of first aid measures

General advice: in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters), seek medical advice with this Safety data Sheet

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Main symptoms and effects, both acute and delayed

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication to consult a physician immediately or any special treatments: Non-applicable

5. Fire fighting measures

5.1 Means of extinction

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Recommendations for fire-fighters

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

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Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

6. Accidental release measures

6.1 Personal precautions, protective devices and emergency procedures

Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. No special environmental precautions required.

6.3 Methods and materials for containment and remediation

Carefully sweep up, gather and remove. Avoid generation of dusts. Keep in suitable, closed containers for disposal. Clean up affected area.

6.4 Reference to other sections

See sections 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling

Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods. Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used

Technical recommendations for the prevention of fires and explosions

Due to its inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

Technical recommendations to prevent environmental risks

Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal See sections 8 and 13.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures for storage

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Store in a cool, dry, well-ventilated location

General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end uses

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

8. Exposure controls / personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values

DNEL (Workers):Non-applicable

DNEL (General population):Non-applicable

PNEC:Non-applicable

8.2 Exposure controls

General security and hygiene measures in the work place

As a preventative measure it is recommended to use basic Personal Protective Equipment in accordance with Directive 89/686/EC. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

Specific protection for the hands:

Mandatory hand protection.

Protective gloves against minor risks.



Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2003+ A1:2009 and EN ISO 374-1:2016. As the product is a mixture of several substances, the resistance of the glove material can not be predicted in advance with total reliability and has therefore to be checked prior to the application

Ocular and facial protection:

Mandatory face protection

Panoramic glasses against splash/projections.



EN 166:2001 EN ISO 4007:2018. Clean daily and disinfect periodically according to the manufacturer's instructions.

Use if there is a risk of splashing.

Body protection:

Work clothing EN 166:2001, EN ISO 4007:2018, Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994

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Anti-slip work shoes, EN ISO 20347:2012, Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container.

9. Physical and chemical properties

9.1 Information on physical and chemical properties

Physical state at 20 °C: Solid

Appearance: crystalline

Colour: incolor to white

Odour: almost odorless

Odour threshold: Non-applicable

Decomposition temperature: >170 °C

pH (value): 1,8 (in aqueous solution: 50 g/l, 25 °C)

Boiling point at atmospheric pressure: ≈155 °C

Vapour pressure at 20 °C: Non-applicable

Vapour pressure at 50 °C: Non-applicable

Evaporation rate at 20 °C: Non-applicable

Density at 20 °C: 1,542

Relative density at 20 °C: Non-applicable

Dynamic viscosity at 20 °C: Non-applicable

Kinematic viscosity at 20 °C: Non-applicable

Kinematic viscosity at 40 °C: Non-applicable

Concentration: Non-applicable

Vapour density at 20 °C: Non-applicable

Partition coefficient n-octanol/water 20 °C: Non-applicable

Solubility in water at 20 °C: soluble

Solubility properties: Non-applicable

Decomposition temperature: not available

Melting point/freezing point: Non-applicable

Explosive properties: Non-applicable

Oxidising properties: Non-applicable

Flash Point: Non-applicable

Flammability (solid, gas): Non-applicable

Autoignition temperature: Not available

Lower flammability limit: Non-applicable

Upper flammability limit: Non-applicable

Explosive:

Lower explosive limit: Non-applicable

Upper explosive limit: Non-applicable

9.2 Other information

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Surface tension at 20 °C: Non-applicable

Refraction index: Non-applicable

10. Stability and reactivity

10.1 Responsiveness

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions Violent reaction with: strong oxidiser, Reducing agents, Strong alkali

10.4 Conditions to avoid Keep away from heat. Decomposition takes place from temperatures above: >170 °C.

10.5 Incompatible materials different metals 10.6 Hazardous decomposition products Hazardous combustion products: see section 5

11. Toxicological information

11.1. Routes of entry: absorbed through the skin. Eye contact. Inhalation.

11.2. Toxicity to animals: Acute oral toxicity (LD50): 3000 mg/kg [rat].

11.3. Acute effects for humans:

Eyes: Very dangerous in case of eye contact (irritant, corrosive). Contact with eyes may lead to corneal damage or blindness. Eye inflammation is characterized by redness, tearing, and itching.

Skin: dangerous in case of skin contact (corrosive, irritant). Extent of tissue damage depends on duration of contact. Skin contact may cause inflammation and blistering. Skin contact may cause burns. Skin inflammation is characterised by itching, flaking, redness, or occasionally blisters.

Inhalation: slightly dangerous if inhaled (lung irritant). Inhalation of dust will cause irritation of the gastrointestinal or respiratory tract, characterized by burning, sneezing and coughing. Overexposure by inhalation may cause airway irritation.

Ingestion: May be fatal if swallowed. May cause burns of the oral cavity, throat, and stomach.

11.4. Chronic effects on humans: slightly hazardous in case of skin contact (irritant), in case of eye contact (irritant), in case of ingestion.

Carcinogenic effects: No data available.

Mutagenic effects: No data available.

Teratogenic effects: No data available.

Developmental toxicity: No data available.

Repeated eye exposure to low levels of dust may cause eye irritation. Repeated skin exposure may produce local skin injury, or dermatitis. Repeated inhalation of dust may produce varying degrees of respiratory irritation or lung damage.

11.5. Special notes on toxicity to animals: No data available.

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11.6. Special remarks on chronic effects on humans: No data available.

11.7. Special remarks on other toxic effects on humans: No data available.

12. Ecological information

12.1. Ecotoxicity: ecotoxicity in water (LC50): 440-706 mg / 1 96 h [p. (Goldfish)].

12.2. BOD5 and COD: Bods is 0.528 mg/kg [5 day(s)] Bod5. COD is 0.728 mg/kg [day(s)].

12.3. Biodegradation products: not likely to be hazardous degradation products in the short term. However, long-term degradation products may occur.

12.4. Toxicity of Biodegradation Products: The product itself and the degradation products contained are not toxic.

12.5. Special remarks on biodegradation products: Biodegradation: 98% after 2 days

13. Disposal considerations

13.1 Waste treatment methods

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). Not recommended disposal down the drain.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

14. Transport information

This product is not regulated for transport (ADR/RID,IMDG,IATA)

15. Regulatory information

15.1. WHMIS (Classification): WHMIS Class E: Solid Corrosive.

15.2. Regulatory lists: CEPADSL: Citric acid - Mono. BP / USP

15.3. Other Regulations: EINECS: This product is on the European Inventory of Existing Chemical Substances.

15.4. Other Classifications:

HCS (USA): Not controlled in HCS (USA).

USA Regulatory List: GRAS, FDA.29 CFR 182.1033: Citric Acid - Mono. USP Fine DSCL (EEC): R34- Causes burns.

International Regulation List: None found.

16. Additional information

Key literature references and sources for data

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Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA)

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

H319 Causes serious eye irritation. H335 May cause respiratory irritation

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon

Disclaimer:

This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.