MATERIAL SAFETY DATA SHEET

Citric Acid Anhydrous

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

1.1 Product identifier

Product name:	Citric Acid Anhydrous
CAS Number:	77-92-9
EC Number:	201-069-1

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

Recommended use: Laboratory chemicals, Industrial & for professional use only

1.3 Details of the supplier of the safety data sheet

Company name:	East Harbour Group Ltd 20 Clough Road, Severalls Industrial Park Colchester, Essex, CO4 9QS United Kingdom
Telephone:	+44 (0) 333 242 0100
Email:	info@eastharbourgroup.com

1.4 Emergency telephone number

Emergency telephone:	0800 246 1274

Section 2: Hazardous 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.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Xi Irritant R36

For the full text of the R-phrases mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Pictogram

Citric Acid Anhydrous

Signal word	Warning
Hazard statement(s)	
H319	Causes serious eye irritation.
Precautionary statement(s)	
P280	Wear 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 + P313	If eye irritation persists: Get medical advice/ attention.
Supplemental Hazard Statements	None

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Section 3: Composition/information on ingredients

3.1 Substances

Formula:	C6H8O7
Molecular weight:	192,13 g/mol
CAS-No.:	77-92-9
EC-No.:	201-069-1

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Citric acid		
CAS-No. 77-92-9	Eye Irrit. 2; H319	<= 100 %
EC-No. 201-069-1		

Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration
Citric acid		
CAS-No. 77-92-9	Xi, R36	<= 100 %
EC-No. 201-069-1		

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

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.

In case of skin contact

Wash off with soap and plenty of water. 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.

4.2. Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3. Indication of any immediate medical attention and special treatment needed
No data available

Section 5: Fire-fighting measures

5.1 Fire Fighting Media and Instructions:
Use water spray, alcohol resistant foam, dry chemical or carbon dioxide

5.2 Special hazards arising from the substance or mixture
Carbon oxides

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary

5.4 Further information
No data available

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
For personal protection see section 8

6.2 Environmental precautions
Do not let product enter drains

6.3 Methods and material for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13

Citric Acid Anhydrous

Section 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.2

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. keep container tightly closed in a dry and well-ventilated place.
Store at room temperature
Storage class (TRGS510): Non-combustible solids

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
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

8.3 Personal protective equipment

Eye/face protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection:
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with his product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Wash and dry hands

Body protection:
Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection:
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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Control of environmental exposure:
Do not lest product enter drains

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form: Crystalline Colour: White
Odor	No data available
Odor Threshold	No data available
pH	1,8 at ca.50 g/l at 25 °C
Melting Point/Freezing Point	155 - 157 °C
Boiling Point/Range	No data available
Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or Explosion Limits	Lower explosion limit: 8 %(V)
Vapor Pressure	No data available
Vapor Density	No data available
Relative Density	No data available
Water Solubility	383 g/l at 25 °C
Partition Coefficient: n-octanol water	log Pow: -1,639 at 20 °C
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

9.2 Other safety information
No data available

Section 10: Stability and Reactivity

10.1 Reactivity	No data available
10.2 Chemical Stability	Stable under recommended storage conditions
10.3 Possibility of hazardous reactions	No data available
10.4 Conditions to avoid	No data available
10.5 Incompatible materials	Oxidizing agents, bases, reducing agents, nitrates
10.6 Hazardous decomposition products	Other decompositions products – No data available In event of fire, see section 5

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Section 11: Toxicological Information

11.1 Toxicological effects:

Acute toxicity
LD50 Oral - Rat - 5.400 mg/kg
(OECD Test Guideline 401)

LD50 Dermal - Rat - > 2.000 mg/kg
(OECD Test Guideline 402)

Skin corrosion/irritation
Skin - Rabbit
Result: Mild skin irritation (OECD Test Guideline 404)

Serious eye damage/eye irritation
Eyes – Rabbit
Result: Irritating to eyes. (OECD Test Guideline 405)

Section 12: Ecological Information

12.1 Toxicity
Ecotoxicity effects

Toxicity to fish	mortality LC50 - Leuciscus idus melanotus - 440 mg/l - 48 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	static test - Daphnia magna (Water flea) - 1.535 mg/l - 24

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

12.6 Other adverse effects
No data available

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Section 13: Disposal considerations

13.1 Waste treatment methods

Waste disposal of substance:
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Container disposal:
Dispose of as unused product.

Section 14: Transport Information

14.1 UN number

ADR/RID: -	IMDG: -	IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods	IMDG: Not dangerous goods	IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: -	IMDG: -	IATA: -

14.4 Packaging group

ADR/RID: -	IMDG: -	IATA: -

14.5 Environmental hazards

ADR/RID: no	IMDG Marine pollutant: no	IATA: no

14.6 Special precautions for user
No data available

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15: Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

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

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Section 16: Other Information

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

Eye Irrit.	Eye irritation
H319	Causes serious eye irritation.

Full text of R-phrases referred to under sections 2 and 3

Xi	Irritant
R36	Irritating

Further information:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions.

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