Citric Acid Anhydrous

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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
Application of the substance / the preparation:	Formulation Intermediate Cleaning products Personal care products Paper industry Cement retardation products Polymers and plastics Scale inhibition in oilfield water systems Textile industry Coatings and paints Photographic processing Anti-scalant, complexing agent in water treatment systems Treatment of metal surfaces Cleaning of metal surfaces Agricultural applications Laboratory reagent

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

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Section 2: Hazardous identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.

Pictogram

GHS07

Signal word	Warning

Hazard statement(s)

H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash 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.
P312	Call a POISON CENTER/doctor if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.

2.3 Other hazards
Results of PBT and vPvB assessment

PBT	No PBT.
vPvB	No vPvB.

Section 3: Composition/information on ingredients

3.1 Substances

CAS Number	77-92-9
Description	Citric Acid Anhydrous
EC number	201-069-1

Section 4: First aid measures

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4.1 Description of first aid measures
After inhalation
Move patient to fresh air, if symptoms persist consult a doctor.

After skin contact
Immediately rinse with water. If skin irritation continues, consult a doctor.

After eye contact
Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing
Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

4.2. Most important symptoms and effects, both acute and delayed
Serious eye damage/eye irritation: Eye Irrit. 2

4.3. Indication of any immediate medical attention and special treatment needed
No further relevant information available.

Section 5: Fire-fighting measures

5.1 Fire Fighting Media and Instructions:
Suitable extinguishing agents
CO2, powder or water spray. Fight larger fi es with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture
Carbon dioxide (CO2)
Carbon monoxide (CO)

5.3 Advice for firefighters
Protective equipment:
Wear fully protective suit.
Wear self-contained respiratory protective device.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment.
Ensure adequate ventilation.

6.2 Environmental precautions
Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up

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Send for recovery or disposal in suitable receptacles.
Retrieve the product by mechanical means.
Dispose contaminated material as waste according to item 13.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

Section 7: Handling and storage

7.1 Precautions for safe handling
Use only in well-ventilated areas.
Provide suction extractors if dust is formed.
Do not inhale dust / smoke / mist.
Avoid contact with eyes and skin.

Information about fire - and explosion protection
No special measures required.

7.2 Conditions for safe storage, including any incompatibilities
Requirements to be met by storerooms and receptacles
Store in a cool and dry place.
Provide ventilation for receptacles.
Store only in the original receptacle.

Information about storage in one common storage facility
Store away from oxidising agents.

Further information about storage conditions
Keep container tightly sealed.

7.3 Specific end use(s)
No further relevant information available.

Section 8: Exposure controls/personal protection

8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace
Not required.

PNECs	
PNEC	0.44 mg/L (Water (Freshwater)

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PNEC	0.044 mg/L (Water (Marine Water)
PNEC	>1000 mg/L (Sewage Treatment Plant (STP)) 3.46 mg/kg sedim. dw (Sediment (Marine Water)) 34.6 mg/kg sedim. dw (Sediment (Freshwater)) 33.1 mg/kg soil dw (Soil)

Additional information
The lists valid during the making were used as basis.

8.2 Exposure controls
Personal protective equipment
General protective and hygienic measures
Do not inhale dust / smoke / mist.
Avoid contact with the eyes and skin.
Wash hands before breaks and at the end of work.
Do not eat, drink, smoke or sniff while working.

Respiratory protection
Suitable respiratory protective device recommended.

Protection of hands
Protective gloves

Material of gloves
Rubber, PVC or neoprene gloves recommended.

Eye protection
Tightly sealed goggles (EN 166).

Body protection
Protective work clothing.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Crystalline
Colour	White
Odour	Odourless
Odour Threshold	Not determined
pH-value (100 g/l)	1.7
Melting point/freezing point	153 °C
Boiling point/boiling range	Decomposes before boiling
Flash point	Not applicable
Flammability (solid, gaseous)	Product is not flammable
Ignition temperature	Not applicable
Decomposition temperature	Not determined

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Danger of explosion	Product does not present an explosion hazard
Explosion limits: Lower **Upper**	Not determined Not determined
Oxidising properties	None
Vapour pressure at 25 °C	2.21*10-6 Pa
Density	Not determined
Relative density at 20 °C	1.665
Vapour density	Not applicable
Evaporation rate	Not applicable
Solubility in / Miscibility with Water at 20 °C Alcohols	590 g/l Partly soluble
Partition coefficient (n-octanol/water)	-0.2 to -1.8 log Pow
Viscosity: Dynamic **Kinematic**	Not applicable No further relevant information available

9.2 Other safety information
No further relevant information available

Section 10: Stability and Reactivity

10.1 Reactivity
No data available

10.2 Chemical Stability
Thermal decomposition / conditions to be avoided: Keep away from heat and direct sunlight.

10.3 Possibility of hazardous reactions
Reacts with alkali (lyes).

10.4 Conditions to avoid
Strong oxidizing agents.

10.5 Incompatible materials
Protect from moisture.
Avoid strong oxidants, strong alkalis and strong acids.
Sodium nitrite, potassium nitrite.

10.6 Hazardous decomposition products
Carbon dioxide
Carbon monoxide

Section 11: Toxicological Information

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11.1 Toxicological effects:
Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values		
Oral	LD50	5400 mg/Kg bw (Mouse) (OECD 401)
Dermal	LD50	>2000 mg/KG bw (Rat) (OECD 402)

Skin corrosion/irritation
Based on available data, the classification criteria a e not met.

Serious eye damage/irritation
Causes serious eye irritation.

Respiratory or skin sensitation
Based on available data, the classification criteria a e not met.

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Germ cell mutagenicity
Based on available data, the classification criteria a e not met.

Carcinogenicity
Based on available data, the classification criteria are not met.

Reproductive toxicity
Based on available data, the classification criteria a e not met.

STOT-single exposure
Based on available data, the classification criteria a e not met.

STOT-repeated exposure
Based on available data, the classification criteria a e not met.

Aspiration hazard
Based on available data, the classification criteria a e not met.

Section 12: Ecological Information

12.1 Toxicity

Aquatic toxicity	
LC50/48h	440 mg/L (Fish) (OECD 203)
NOEC	425 mg/L (Algae)
LC50/24h	1535 mg/L (Daphnia Magna)

12.2 Persistence and degradability
Readily biodegradable.

12.3 Bioaccumulative potential

Does not accumulate in organisms.

12.4 Mobility in soil
pKa: 3.13, 4.76 and 6.4 at 25 °C

12.5 Results of PBT and vPvB assessment
PBT: No PBT.
vPvB: No vPvB.

12.6 Endocrine disrupting properties
No further relevant information available.

12.7 Other adverse effects
No further relevant information available.

Section 13: Disposal considerations

13.1 Waste treatment methods
Recommendation
Do not allow product to reach sewage system.

Uncleaned packaging recommendation
Disposal must be made according to official regulations.
Packaging that may not be cleansed must be disposed of in the same manner as the product.

Section 14: Transport Information

14.1 UN Number
ADR, ADN, IMDG, IATA Not applicable.

14.2 UN proper shipping name
ADR, ADN, IMDG, IATA Not applicable.

14.3 Transport hazard class(es)
ADR, ADN, IMDG, IATA Not applicable.

14.4 Packing group
ADR, ADN, IMDG, IATA Not applicable.

14.5 Environmental hazards
Marine pollutant: No.

14.6 Special precautions for user
Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

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Not applicable.

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical Safety Assessment
A Chemical Safety Assessment has been carried out.

Section 16: Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms

ADR	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG	International Maritime Code for Dangerous Goods
IATA	International Air Transport Association
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
EINECS	European Inventory of Existing Commercial Chemical Substances
CAS	Chemical Abstracts Service (division of the American Chemical Society)
PNEC	Predicted No-Effect Concentration (REACH
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
Eye Irrit. 2	Serious eye damage/eye irritation - Category 2