

SAFETY DATA SHEET
CITRIC ACID ANHYDROUS TECH

According to Regulation (EC) No 1907/2006, Annex II

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product name	CITRIC ACID ANHYDROUS TECH
Chemical name	Citric Acid
Product number	2673
REACH registration number	01-2119457026-42-0000
CAS number	77-92-9
EC number	201-069-1

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

Identified uses	Laboratory reagent. Descaler.
Uses advised against	No specific uses advised against are identified. Use only for intended applications.

1.3. Details of the supplier of the safety data sheet

Supplier	Reagent Chemical Services 11b - 13 Aston Fields Road Whitehouse Industrial Estate Runcorn Cheshire WA7 3DL T: 01928 716903 (08.30 - 17.00) F: 01928 716425 E: info@reagent.co.uk
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1.4. Emergency telephone number

Emergency telephone	OHES Environmental Ltd 24-7 Tel. 0333 333 9939 (24 hour)
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SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification (EC 1272/2008)**

Physical hazards	Not Classified
Health hazards	Eye Irrit. 2 - H319
Environmental hazards	Not Classified

2.2. Label elements

EC number	201-069-1
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Pictogram



Signal word	Warning
Hazard statements	H319 Causes serious eye irritation.
Precautionary statements	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+P313 If eye irritation persists: Get medical advice/ attention.
Supplementary precautionary statements	P264 Wash contaminated skin thoroughly after handling.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.1. Substances

Product name	CITRIC ACID ANHYDROUS TECH
Chemical name	Citric Acid
REACH registration number	01-2119457026-42-0000
CAS number	77-92-9
EC number	201-069-1
Composition comments	Free flowing citric acid in powder or granular form.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Remove affected person from source of contamination. Get medical attention if any discomfort continues.
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention.
Skin contact	Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if irritation persists after washing.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes. Get medical attention if irritation persists after washing.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

4.2. Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
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Inhalation	May cause respiratory system irritation.
Ingestion	May cause irritation. May cause stomach pain or vomiting.
Skin contact	May cause irritation. Itchiness. Redness.
Eye contact	Irritating to eyes. Prolonged or repeated exposure may cause severe irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
Specific treatments	No specific chemical antidote is known to be required after exposure to this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire. Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	No specific firefighting precautions applicable when small quantities are involved in the fire.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO ₂).

5.3. Advice for firefighters

Protective actions during firefighting	Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Contain and collect extinguishing water.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Wear chemical protective suit. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin and eyes. Avoid inhalation of dust. Provide adequate ventilation.
For emergency responders	Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions	Do not discharge into drains or watercourses or onto the ground.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Wear protective clothing as described in Section 8 of this safety data sheet. Avoid generation and spreading of dust. Small Spillages: Collect spillage with a shovel and broom, or similar and reuse, if possible. Collect and place in suitable waste disposal containers and seal securely. Large Spillages: Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into suitable waste disposal containers and seal securely. Dispose of this material and its container to hazardous or special waste collection point. Wash thoroughly after dealing with a spillage.
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6.4. Reference to other sections

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Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of dust and contact with skin and eyes. Avoid generation and spreading of dust. Wash hands thoroughly after handling.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Provide eyewash station. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place. Store away from incompatible materials (see Section 10). Only store in correctly labelled containers.

Storage class Chemical storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ dust only

Short-term exposure limit (15-minute): WEL 10 mg/m³ dust only

WEL = Workplace Exposure Limit

PNEC

- Fresh water; 0.44 mg/l
- Marine water; 0.044 mg/l
- STP; 1000 mg/l
- Sediment (Freshwater); 34.6 mg/kg
- Sediment (Marinewater); 3.46 mg/kg
- Soil; 33.1 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye/face protection

Wear tight-fitting, dust-resistant, chemical splash goggles if airborne dust is generated. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

Wear protective gloves. To protect hands from chemicals, gloves should comply with European Standard EN374. The breakthrough time for any glove material may be different for different glove manufacturers. For exposure up to 8 hours, wear gloves made of the following material: Nitrile rubber. Thickness: 0.35 mm Polyvinyl chloride (PVC). Thickness: 0.50 mm Butyl rubber. Thickness: 0.5 mm The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Frequent changes are recommended.

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Other skin and body protection	Provide eyewash station. Wear appropriate clothing to prevent skin contamination.
Hygiene measures	Good personal hygiene procedures should be implemented. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Contaminated clothing should be placed in a closed container for disposal or decontamination. Warn cleaning personnel of any hazardous properties of the product.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Particulate filter, type P2. Particulate filters should comply with European Standard EN143. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. Check that the respirator fits tightly and the filter is changed regularly.
Environmental exposure controls	Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Solid. Powder.
Colour	Colourless.
Odour	Odourless.
pH	pH (diluted solution): 1.8 5
Melting point	153°C
Initial boiling point and range	Technically not feasible.
Flash point	Scientifically unjustified.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	0 hPa @ 25°C REACH dossier information.
Relative density	1.67 @ 20°C
Solubility(ies)	Soluble in water. ~ 590 g/l water @ 20°C
Partition coefficient	log Kow: -0.2 to -1.8
Auto-ignition temperature	1010°C REACH dossier information.
Decomposition Temperature	No specific test data are available.
Viscosity	No information available.
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	None.
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SECTION 10: Stability and reactivity

10.1. Reactivity

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Reactivity The following materials may react with the product: Chemically-active metals. Alkalis. Oxidising agents. Reducing agents. Amines.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions May generate heat.

10.4. Conditions to avoid

Conditions to avoid Avoid exposure to high temperatures or direct sunlight. Avoid the accumulation of dust. Avoid freezing.

10.5. Incompatible materials

Materials to avoid Avoid contact with the following materials: Strong alkalis. Strong oxidising agents. Chemically-active metals. May be corrosive to metals. Amines.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,400.0

Species Mouse

Notes (oral LD₅₀) LD₅₀ 11700 mg/kg, Oral, Rat REACH dossier information.

ATE oral (mg/kg) 5,400.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rat

Notes (dermal LD₅₀) LD₅₀ >2000 mg/kg, Dermal, Rat REACH dossier information.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Not irritating., REACH dossier information.

Serious eye damage/irritation

Serious eye damage/irritation Causes eye irritation.

Respiratory sensitisation

Respiratory sensitisation Not sensitising.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

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Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Based on available data the classification criteria are not met.
<u>Carcinogenicity</u>	
Carcinogenicity	Scientifically unjustified.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	This substance has no evidence of toxicity to reproduction.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	No specific test data are available.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	LD ₅₀ 5.66 mg/kg/day, Oral, Rat
<u>Aspiration hazard</u>	
Aspiration hazard	Not anticipated to present an aspiration hazard, based on chemical structure.
<u>Inhalation</u>	
Inhalation	May cause respiratory irritation.
<u>Ingestion</u>	
Ingestion	Symptoms following overexposure may include the following: Nausea, vomiting. Stomach pain.
<u>Skin contact</u>	
Skin contact	May cause irritation.
<u>Eye contact</u>	
Eye contact	Irritating to eyes.

SECTION 12: Ecological Information

Ecotoxicity	The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms.
<u>12.1. Toxicity</u>	
Acute toxicity - fish	LC ₅₀ , 96 hours: 440-760 mg/l, <i>Leuciscus idus</i> (Golden orfe)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 24 hours: 1535 mg/l, <i>Daphnia magna</i>
<u>12.2. Persistence and degradability</u>	
Persistence and degradability	The product is readily biodegradable.
<u>12.3. Bioaccumulative potential</u>	
Bioaccumulative potential	Bioaccumulation is unlikely.
Partition coefficient	log Kow: -0.2 to -1.8
<u>12.4. Mobility in soil</u>	
Mobility	The product is soluble in water.
<u>12.5. Results of PBT and vPvB assessment</u>	
Results of PBT and vPvB assessment	This substance is not classified as PBT or vPvB according to current EU criteria.
<u>12.6. Other adverse effects</u>	

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Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered. The generation of waste should be minimised or avoided wherever possible. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

Disposal methods Reuse or recycle products wherever possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

Transport labels

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

**Annex II of MARPOL 73/78
and the IBC Code**

SECTION 15: Regulatory information

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

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.

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Guidance	Workplace Exposure Limits EH40.
Authorisations (Title VII Regulation 1907/2006)	No specific authorisations are known for this product.
Restrictions (Title VIII Regulation 1907/2006)	No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

SECTION 16: Other information

General information	This datasheet is not intended to be a replacement for a full risk assessment, these should always be carried out by competent persons.
Key literature references and sources for data	Source: European Chemicals Agency, http://echa.europa.eu/
Revision comments	Full revision
Revision date	05/09/2019
Revision	5
Supersedes date	22/09/2017
SDS number	20984
SDS status	Approved.
Risk phrases in full	Industry - Dermal; Long term systemic effects 22 mg/kg/day R36 Irritating to eyes.
Hazard statements in full	H319 Causes serious eye irritation.