

**1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING**

**Product Identifier**

**Chemical Name (EINECS):** Citric Acid  
**Trade Name:** Citric Acid Monohydrate  
**CAS Number:** 5949-29-1  
**EINECS Number:** 201-069-1  
**REACH Registration Number:** 01-2119457026-42-XXXX

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

**Identified uses:** Intermediate  
Formulation  
Detergents and cleaning products  
Agricultural applications  
Personal care products  
Paper industry  
Construction products  
Polymers and plastics  
Oil industry  
Textile industry  
Paints and coatings  
Photography products  
Laboratory reagents  
Water treatment  
Treatment of metal surfaces  
Medical devices

**Uses advised against:** No further information.

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## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture:

**Regulation 1272/2008 (CLP):** Eye Irrit. 2 H319 Causes serious eye irritation.  
STOT SE 3 H335 May cause respiratory irritation.

### Label elements:

**According to Regulation (EC) No. 1272/2008 (CLP):**

**Trade Name:** Citric Acid Monohydrate

### Hazard Pictogram:



**Signal word(s):** Warning.

**Hazard statement(s):** H319: Causes serious eye irritation.

**Precautionary statement(s):** P264: Wash hands 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+P313: If eye irritation persists: Get medical advice/attention.

### Other hazards:

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

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

### Substances:

Chemical Name	CAS Number	EC Number
Citric Acid Monohydrate	5949-29-1	201-069-1

## 4. FIRST AID MEASURES

### Description of first aid measures:

**Inhalation:** Move patient to fresh air, if symptoms persist consult a doctor.

**Skin contact:** If skin irritation continues, consult a doctor.

**Eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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

[cont...]

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

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

## 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

**Suitable extinguishing media:** CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Unsuitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Special hazards arising from the substance or mixture:** Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO).

**Advice for fire-fighters:** Wear fully protective suit. Wear self-contained respiratory protective device.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment.

Ensure adequate ventilation.

Wear eye protection.

Avoid contact with skin and eyes.

**Environmental precautions:** Do not allow to enter sewers/ surface or ground water.  
No special measures required.  
Prevent further leakage or spillage if safe to do so.

### Methods and material for containment and cleaning up:

Send for recovery or disposal in suitable receptacles.

Retrieve the product by mechanical means.

Dispose contaminated material as waste according to item 13.

Pick up and transfer to properly labelled containers.

After cleaning, flush away traces with water.

**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.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Avoid breathing vapours. Do not get in eyes, on skin, or on clothing. Use only in well-ventilated areas. Provide suction extractors if dust is formed. Do not inhale dust / smoke / mist.

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

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**Conditions for safe storage, including any incompatibilities:** 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.

**Specific End Uses:** No further relevant information.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Control parameters:**

**Ingredients with limit values that require monitoring at the workplace:** Not required.

**PNEC:** 0.44 mg/L (Water (Freshwater))  
0.044 mg/L (Water (Marine Water))  
3.46 mg/kg sedim. dw (Sediment (Marine Water))  
34.6 mg/kg sedim. dw (Sediment (Freshwater))  
33.1 mg/kg soil dw (Soil)  
>1000 mg/L (Sewage Treatment Plant (STP))

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

**Exposure controls:**

**General protective and hygienic measures:** Do not eat, drink, smoke or sniff while working.

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes.  
Avoid contact with the eyes and skin.

**Respiratory protection:** Suitable respiratory protective device recommended.

**Eye protection:** Tightly sealed goggles (EN 166).

**Hand protection:** Protective gloves. Material of gloves: Rubber, PVC or neoprene gloves recommended.

**Body protection:** Protective work clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties:**

**Appearance:**

**Form:** Solid. Crystalline

**Colour:** White.

**Odour:** Odourless.

**Odour threshold:** Not determined.

**pH-value (100 g/l):** 1.7

**Melting point/freezing point:** 153°C

**Initial boiling point and boiling range:** Decomposes before boiling.

**Flash point:** Not applicable.

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<b>Flammability (solid, gas):</b>	Product is not flammable.
<b>Ignition temperature:</b>	Not applicable.
<b>Decomposition temperature:</b>	Not determined.
<b>Explosive properties:</b>	Product does not present an explosion hazard
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Oxidising properties:</b>	None.
<b>Vapour pressure at 25°C:</b>	2.21*10 <sup>-6</sup> Pa
<b>Density:</b>	Not determined.
<b>Relative density at 20°C:</b>	1.665
<b>Vapour density:</b>	Not applicable.
<b>Evaporation rate:</b>	Not applicable.
<b>Solubility in / Miscibility with Water at 20°C:</b>	590 g/l
<b>Alcohols:</b>	Partly soluble.
<b>Partition coefficient: n-octanol/water:</b>	-0.2 to -1.8 log POW
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
<b>Other information:</b>	No further relevant information.

### 10. STABILITY AND REACTIVITY

**Reactivity:** No data available.

**Chemical stability:**

**Thermal decomposition/ conditions to be avoided:** Stable at environment temperature.

**Possibility of hazardous reactions:** Reacts with alkali (lyes).

**Conditions to avoid:** Keep away from heat and direct sunlight.

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

**Hazardous decomposition products:** Carbon dioxide. Carbon monoxide.

### 11. TOXICOLOGICAL INFORMATION

**Information on 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)

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### Primary irritant effect:

**Skin corrosion/irritation:** Based on available data the classification criteria are not met.

**Serious eye damage/irritation:** Causes serious eye irritation.

**Respiratory or skin sensitisation:** Based on available data the classification criteria are not met.  
CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

**Germ cell mutagenicity:** Based on available data the classification criteria are not met.

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

**Reproductive toxicity:** Based on available data the classification criteria are not met.

**STOT-single exposure:** Based on available data the classification criteria are not met.

**STOT-repeated exposure:** Based on available data the classification criteria are not met.

**Aspiration hazard:** Based on available data the classification criteria are not met.

## 12. ECOLOGICAL INFORMATION

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

**Persistence and degradability:** Easily biodegradable.

**Bioaccumulative potential:** Does not accumulate in organisms.

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

### Additional environmental information:

#### General notes:

**Water hazard class 1 (German Regulation) (Self-assessment):** Slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### Results of PBT and vPvB assessment:

**PBT:** No PBT.

**vPvB:** No vPvB.

**Other adverse effects:** No further relevant information available.

## 13. DISPOSAL CONSIDERATIONS

### 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.

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### 14. TRANSPORT INFORMATION

<b>UN Number:</b>	Not classified in the meaning of transport regulations.
<b>Proper Shipping Name:</b>	Not classified in the meaning of transport regulations.
<b>Transport hazard class:</b>	Not classified in the meaning of transport regulations.
<b>Packing group:</b>	Not classified in the meaning of transport regulations.
<b>Environmental:</b>	Not classified in the meaning of transport regulations.
<b>Special precautions for users:</b>	Not classified in the meaning of transport regulations.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:</b>	
<b>Environmental pollutant:</b>	No.

### 15. REGULATORY INFORMATION

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

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

**Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

### 16. OTHER INFORMATION

**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.

**Legal disclaimer:** The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.