

CITRIC ACID >=20%

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1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

- * Trade name : CITRIC ACID >=20%
- * Product Code : 11454
- Identification of the product
 - Type of product : Pure product in solution .
 - Use of product : Several industrial applications .
- Company identification : See heading of Material Safety Data Sheet.
- Emergency phone number : See heading of Material Safety Data Sheet.

2. HAZARD IDENTIFICATION

- * Irritant (Xi) : R36 - Irritating to eyes.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Name component(s)	Weight %	CAS nr / EC nr / EC annex nr	Symbol(s)	R-Phrase(s)
Citric acid monohydrate	>= 20 %	5949-29-1 / 201-069-1 / ----	Xi	36

The full text of the R-phrases is in chapter 16.

4. FIRST AID MEASURES

- * General : In case of doubt or persistent symptoms, call a physician.
 Never give anything by mouth to an unconscious person.
- First Aid Measures
 - * - Inhalation : Remove victim into fresh air.
 Allow the affected person to rest.
 If not breathing, give artificial respiration.
 Consult a doctor.
 - Skin Contact : Remove contaminated clothing.
 Rinse skin immediately with plenty of water. (shower if necessary).
 Consult doctor if irritation develops.
 - * - Eye Contact : Rinse immediately thoroughly and long (at least 15 min.) with plenty of water.
 Remove contact lenses.
 Consult eye doctor.
 Do not use a neutralisation agent.
 - Ingestion : DO NOT INDUCE VOMITING. Rinse mouth with water.
 Give victim plenty of water to drink.
 Seek medical advice.

5. FIRE-FIGHTING MEASURES

- Extinguishing Media
 - * - Suitable : Water spray , Powder .
- Special Procedures : Apply water spray or fog to cool nearby equipment. Avoid fire-fighting water to enter environment.

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5. FIRE-FIGHTING MEASURES (continued)

- * Special Exposure Hazards : Fire may liberate carbon oxides (CO) and smoke.
- Special Protective Equipment for Firefighters : Use self-contained breathing apparatus when in close proximity to fire.

6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions : Evacuate all personnel immediately and ventilate area.
Avoid breathing vapour and contact with skin and eyes.
Wear recommended personal protective equipment. (See chapter 8).
- * Environmental Precautions : Shut off leaks if without risks.
Dike in the spilled product as much as possible with inert material.
Prevent entry of product in public water, sewers or soil.
Notify authorities if product enters sewers or public waters.
- Methods for Cleaning Up : Collect the spillage in closable, suitable disposal containers.
For the removal of the waste product, see chapter 13.
Residue is to be washed down with plenty of water.
Neutralise rinse liquid with base.

7. HANDLING AND STORAGE

- Handling : Avoid breathing vapour and contact with skin and eyes.
Wear recommended personal protective equipment. (See chapter 8).
- * Storage : Keep only in the original, safely locked container in a cool, well ventilated and dry place.
Keep away from : Oxidizing agents , Bases .
- Packaging Material : PE, PP, Coated steel , Stainless steel .
- Insuitable Packaging Material : Aluminium , Copper , Lead , Zinc .

8. MEASURES EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering Measures : Ventilate area.
- Industrial Hygiene : When using, do not eat, drink or smoke.
- * Occupational Exposure Limits : Not established.
- Personal Protection Equipment :
 - Respiratory Protection : Ventilation , Local exhaust , Respiratory protection equipment (Filter type P2).
 - Hand Protection : Gloves (Butyl rubber, PVC, ...).
 - Eye Protection : Closed safety glasses or face shield.
 - Skin and Body Protection : Suitable protective clothing .

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical State (20°C) : Liquid .
- Form/Colour : Clear , Colourless .
- Odour : Odourless.
- pH value : app. 2
- Boiling Point/Range (1013 hPa) : No data available.
- Congeaing/Melting point : No data available.
- Flash point : Not applicable.
- * Density (20°C) : 1,070 - 1,225 kg/l
- Solubility in water : Complete solubility.
- * Log P Octanol/Water (20°C) : -1,72

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10. STABILITY AND REACTIVITY

- Stability : Stable at normal circumstances.
- * Conditions to avoid : High temperatures .
- Materials to avoid : Oxidizing agents , Bases .
- Hazardous Decomposition Products : Fire may liberate carbon oxides (CO) and smoke.

11. TOXICOLOGICAL INFORMATION

- Acute toxicity
- Inhalation : May cause irritation of respiratory tract.
Symptoms include: Cough , Sore throat .
- * - Skin contact : May be irritating for the skin.
Symptoms include: Redness , Pain .
- * - Eye contact : Irritating to eyes.
Symptoms include: Redness , Pain .
- * - Ingestion : Symptoms include: Sore throat , Abdominal pain , Vomiting .
- * : • Citric acid monohydrate : LD50 (Rat, oral) : 3000 mg/kg
- * Other toxicological information : Information on the webaddress <http://ecb.jrc.it/ESIS> (see IUCLID Data Sheets).

12. ECOLOGICAL INFORMATION

- Mobility : Product completely soluble in water.
- * Persistence and degradability : Easily biologically degradable.
- * Bioaccumulation : Bioaccumulation not expected .
- * Ecotoxicity : • Citric acid monohydrate : LC50 (Fish, 96 h) : > 400 mg/l (*Leusiscus idus*)
- * Other ecological information : Information on the webaddress <http://ecb.jrc.it/ESIS> (see IUCLID Data Sheets).
- * WGK class (Germany) : 1 (Weak water pollutant).
- * Water damaging (The Netherlands) : 11
- * Decontamination exertion (The Netherlands) : B

13. DISPOSAL CONSIDERATIONS

- Waste from residues/Unused products : The product has to be destroyed according to national or local legislation, by a company specialised in handling hazardous waste products.
- Removal contaminated packaging : Packing is to be used exclusively for the packing of this product.
After use, empty and close the packing very carefully.
In case of returned packing, the empty packing can be offered back to the supplier.
- * European list of waste products : European waste product code: ' XX XX XX ' . This code is assigned on the basis of the most current applications and can not be representative for pollutions which are arisen at the effective use of the product. The producer of the waste has to evaluate its process himself and has to grant the appropriate waste coding. See directive 2001/118/EC.

14. TRANSPORT INFORMATION

- Land (Road/Railroad, ADR/RID) : Product not mentionned in list of dangerous goods for road transport.
- Sea Transport (IMDG) : Product not mentionned in list of dangerous goods for sea transport.

15. REGULATORY INFORMATION

- * Remark : Product not mentionned in list of dangerous goods (Annex 1 of Directive 67/548/EC, most recent adaptation).
The data mentionned at the bottom are recommended by the producer.
- * Name dangerous component(s) : Citric acid monohydrate .

CITRIC ACID >=20%**15. REGULATORY INFORMATION (continued)**

- Symbol(s) : Irritant (Xi).



- R-Phrases : R36 - Irritating to eyes.
- S-Phrases : S24/25 - Avoid contact with skin and eyes.

16. OTHER INFORMATION

- This safety data sheet has been drawn up in accordance with the EC Regulation n° 1907/2006. This safety data sheet is exclusively made for industrial/professional use.

* Has changed compared to previous revision.

- Changes : General revision .
- R-phrases : R36 - Irritating to eyes.
- Sources of used key data : The information contained herein is based on the present state of our knowledge (Producers of starting materials , Chemical cards , ...).

This information is to our knowledge correct and complete on the date of issue of this safety data sheet. The information only concerns the product and does not give any guarantee for the quality and the completeness of the properties of the product, or in case of mixing or using in any other process. It remains the responsibility of the user to assure himself that the information is suitable and complete concerning the special use he makes of the product.
BRENNTAG denies all responsibility for loss or damage resulting from the use of these data.

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