

Safety Data Sheets

Citric acid anhydrous

Product code: PC-000201

Departement: chemical products

C.A.S. : 77-92-9



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Section: 1 Identification

Product name:	Citric acid, anhydrous, ACS reagent
Formula :	C ₆ H ₈ O ₇
Molecular weight :	192.12 g/mol
CAS:	77-92-9
Form	crystalline
Colour	white

Section: 2 Hazard Identification

HMIS Classification	
Health hazard:	2
Flammability:	0
Physical hazards:	0
Potential Health Effects	
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
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Eyes	Causes eye irritation.
Ingestion	May be harmful if swallowed.

HGS Label Elements



Signal Word

Danger

GHS Classification

Serious eye damage / eye irritation --Category 2

Combustible dust (This product could belong to the class of danger "combustible dust" based on various factors that influence the combustibility, explosive dust, including composition, shape and size of the particles.)

Hazard statements

H313 May be harmful in contact with skin.

H316 Causes mild skin irritation.

H319 Causes serious eye irritation.

Precautionary Statements

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Section: 3 Composition / Information on Ingredients

citric acid	No.-CE	No.-Index	Concentration
No.-CAS 77-92-9	201-069-1	-	<=100%

Section: 4 First Aid Measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
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.

Section: 5 Fire Fighting Measures

Conditions of flammability	Not flammable or combustible.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.
Hazardous combustion products	Hazardous decomposition products formed under fire conditions. - Carbon oxides
Explosion data - sensitivity to mechanical impact	No data available
Explosion data - sensitivity to static discharge	No data available

Section: 6 Accidental Release Measures

Personal precautions	Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate
ventilation. Avoid breathing dust.	
Environmental precautions	Do not let product enter drains.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section: 7 Handling And Storage

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.
Conditions for safe storage	Keep container tightly closed in a dry and well-ventilated place.

Section: 8 Exposure Control/Personal Protection

Personal protective equipment	
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).
Hand 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 this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Eye 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 and 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.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Specific engineering controls	Use mechanical exhaust or laboratory fumehood to avoid exposure.

Section: 9 Physical and Chemical Properties

Appearance	
Form	crystalline
Colour	white
Safety data	
pH	1.8 at ca.50 g/l at 25 °C (77 °F)
Melting point:	155 - 157 °C (311 - 315 °F)
Boiling point	No data available
Flash point	No data available
Ignition temperature	No data available
Auto-ignition temperature	No data available
Lower explosion limit	8 %(V)
Vapour pressure	No data available
Density	No data available
Water solubility	383 g/l at 25 °C (77 °F)
Partition coefficient:	n-octanol/water log Pow: -1.639 at 20 °C (68 °F)
Relative vapour density	No data available
Odour	No data available
Odour Threshold	No data available
Evaporation rate	No data available

Section: 10 Stability And Reactivity

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No data available
Conditions to avoid	No data available
Materials to avoid	Oxidizing agents, Bases, Reducing agents, Nitrates
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products	No data available

Section: 11 Toxicological Information

Acute toxicity	LD50 Oral - Rat - 5,400 mg/kg
Oral LD50	No data available
Inhalation LC50	LD50 Dermal - Rat - > 2,000 mg/kg
Dermal LD50	No data available
Other information on acute toxicity	Skin - Rabbit - Mild skin irritation - OECD Test Guideline 404
Skin corrosion/irritation	Eyes - Rabbit - Irritating to eyes. - OECD Test Guideline 405
Serious eye damage/eye irritation	Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
IARC:	No data available
ACGIH:	No data available
Reproductive toxicity	No data available
Teratogenicity	No data available
Specific target organ toxicity	No data available
- single exposure (Globally Harmonized System)	No data available
- repeated exposure (Globally Harmonized System)	No data available
Aspiration hazard	No data available
Potential health effects	May be harmful if inhaled. Causes respiratory tract irritation.
Inhalation	May be harmful if swallowed.
Ingestion	May be harmful if absorbed through skin. Causes skin irritation.
Skin	Causes eye irritation.
Eyes	Vomiting, Diarrhoea, Damage to tooth enamel., Dermatitis, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Signs and Symptoms of Exposure	No data available
Synergistic effects	RTECS: GE7350000
Additional Information	

Section: 12 Ecological Information

Toxicity	Leuciscus idus melanotus - 440 mg/l - 48 h
Toxicity to fish mortality LC50	OECD Test Guideline 203
Method:	
Toxicity to daphnia and other aquatic invertebrates static test	Daphnia magna (Water flea) - 1,535 mg/l - 24 h
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvB assessment	No data available
Other adverse effects	No data available

Section: 13 Disposal Considerations

Product	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging	Dispose of as unused product.

Section: 14 Transport Information

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

Section: 15 Regulatory Information

WHMIS Classification D2B Toxic Material Causing Other Toxic Effects Moderate eye irritant
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section: 16 Other Information

reference

Hazardous Substances Data Bank, U.S. National Library of Medicine, Bethesda, Maryland, toxnet.nlm.nih.gov.

International Chemical Safety Cards, National Institute for Occupational Safety and Health, Cincinnati, OH, www.cdc.gov/niosh

Chemical Carcinogenesis Research Information System, U.S. National Library of Medicine, Bethesda, Maryland, toxnet.nlm.nih.gov.

MSDS Solutions, www.msds.com

OSHA, U.S. Department of Labor, Washington D.C., www.osha.gov.

manufacturer's material safety data sheet

Prepared by Kama pigments

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