

Citric acid**03878-1KG**

Version 1.1

Revision Date 12/26/2020

Print Date 05/02/2023

SECTION 1. IDENTIFICATION

Product name : Citric acid

Number : 000000020834

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell International Inc.
1953 South Harvey Street
Muskegon, MI 49442

For more information call : 1-800-368-0050
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : solid

Color : white

Odor : odourless

Classification of the substance or mixture

Classification of the substance or mixture : Combustible dust
Eye irritation, Category 2A

GHS Label elements, including precautionary statements

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Symbol(s)

:



Signal word

: Warning

Hazard statements

: May form combustible dust concentrations in air.
Causes serious eye irritation.

Precautionary statements

: **Prevention:**

Wash skin thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

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

If eye irritation persists: Get medical advice/ attention.

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula

: C₆H₈O₇

Chemical nature

: Substance

Chemical name	CAS-No.	Concentration
Citric acid	77-92-9	<=100.00 %

SECTION 4. FIRST AID MEASURES

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- General advice : First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.
- Inhalation : Remove to fresh air. Call a physician if irritation develops or persists.
- Skin contact : After contact with skin, wash immediately with plenty of soap and water. Call a physician if irritation develops or persists.
- Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. Consult a physician.
- Ingestion : When swallowed, allow water to be drunk. Call a physician immediately.

Notes to physician

- Most important symptoms/effects, acute and delayed : No information available.
- Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO₂)
Dry powder
- Specific hazards during firefighting : Avoid dust formation in confined areas.
Airborne dusts of this product in an enclosed space and in the presence of an ignition source may constitute an explosion hazard.
Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.
Static charges on powders or powders in liquids may ignite combustible atmospheres.
Hazardous decomposition products formed under fire conditions.

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Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Wear personal protective equipment.
Evacuate personnel to safe areas.
Provide adequate ventilation.
May form explosive dust-air mixture.
Avoid dust formation.
Accumulations of dust from this product in the workplace may increase the likelihood or severity of an explosion.
Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.
Eliminate all ignition sources if safe to do so.

Environmental precautions : Prevent further leakage or spillage if safe to do so.
Prevent product from entering drains.
Should not be released into the environment.
Do not flush into surface water or sanitary sewer system.
Do not allow run-off from fire fighting to enter drains or water courses.

Methods and materials for containment and cleaning up : Avoid dust formation and electrical charging (sparking) because dust explosion might occur.
Do not create a powder cloud by using a brush or compressed air.
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).
Do not use sparking tools.

SECTION 7. HANDLING AND STORAGE**Handling**

Precautions for safe : Wear personal protective equipment.

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handling

Avoid dust formation.
Floors, walls and other surfaces must be regularly cleaned.
The material can accumulate static charge and can therefore cause electrical ignition.
Static charges on powders or powders in liquids may ignite combustible atmospheres.
Take precautionary measures against static discharges.

Advice on protection against fire and explosion

: All combustible solids have the potential to create a dust explosion hazard. The likelihood of an explosion can be dependent upon many factors, such as the explosive characteristics of the material, the design of the facility, and the manner in which the material is handled. A more detailed discussion can be found in NFPA Bulletin 654, "Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids."

Storage**Conditions for safe storage, including any incompatibilities**

: Store in original container.
Keep containers tightly closed in a dry, cool and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Protective measures**

: Ensure that eyewash stations and safety showers are close to the workstation location.
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.
Avoid breathing dust.
Avoid contact with skin, eyes and clothing.

Engineering measures

: Provide exhaust ventilation if dust is formed.
Use only in an area equipped with explosion proof exhaust ventilation.
Electrical equipment should be protected to the appropriate standard.
If formation of dust is observed, equipment has to be switched off, cleaned and serviced.

Eye protection

: Safety goggles

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- Hand protection : Latex gloves
Gloves must be inspected prior to use.
Replace when worn.
- Skin and body protection : Protective suit
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
- Hygiene measures : Remove and wash contaminated clothing before re-use.
Wash hands before breaks and at the end of workday.
When using do not eat or drink.

Exposure Guidelines

Contains no substances with occupational exposure limit values.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state : solid
- Color : white
- Odor : odourless
- Odor threshold : Note: No data available
- pH : 1.8 at 50.00 g/l, 20 °C
- Melting point/range : 153 - 159 °C
- Boiling point/boiling range : Note: No data available
- Flash point : Note: Not applicable
- Evaporation rate : Note: No data available
- Flammability : May form combustible dust concentrations in air.

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Lower explosion limit	: Note: No data available
Upper explosion limit	: Note: No data available
Vapor pressure	: Note: No data available
Vapor density	: Note: No data available
Density	: 1.67 g/cm ³ at 20 °C
Water solubility	: Note: soluble
Partition coefficient: n-octanol/water	: log Pow: -1.72 at 20 °C
Ignition temperature	: Note: No data available
Auto-ignition temperature	: Note: not auto-flammable
Decomposition temperature	: Note: Stable under recommended storage conditions.
Viscosity, dynamic	: Note: No data available
Viscosity, kinematic	: Note: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: 192.12 g/mol

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
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Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: To avoid thermal decomposition, do not overheat. Avoid dust formation.
Incompatible materials	: Oxidizing agents Bases Metals Reducing agents
Hazardous decomposition products	: In case of fire hazardous decomposition products may be produced such as: carbon oxides (CO, CO ₂).

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50: 5,400 mg/kg Species: Mouse Method: OECD Test Guideline 401
Acute inhalation toxicity	: Note: Not classified due to data which are conclusive although insufficient for classification.
Acute dermal toxicity	: LD50: > 2,000 mg/kg Species: Rat Method: OECD Test Guideline 402
Skin irritation	: Species: Rabbit Result: slight irritation Method: OECD Test Guideline 404
Eye irritation	: Species: Rabbit Result: Irritating to eyes.

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Sensitisation : Note: No data available

Genotoxicity in vitro : Note: Not classified due to data which are conclusive although insufficient for classification.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**Toxicity to fish : LC50: 440 mg/l
Exposure time: 48 h
Species: Leuciscus idus (Golden orfe)
Method: OECD Test Guideline 203Toxicity to daphnia and other aquatic invertebrates : EC50: 1,535 mg/l
Exposure time: 24 h
Species: Daphnia magna (Water flea)**Elimination information (persistence and degradability)**

Bioaccumulation : Note: Bioaccumulation is unlikely.

Biodegradability : Note: Readily biodegradable.

Further information on ecology**SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

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DOT Not dangerous goods**TDG** Not dangerous goods**IATA** Not dangerous goods**IMDG** Not dangerous goods**SECTION 15. REGULATORY INFORMATION****Inventories**US. Toxic Substances : On TSCA Inventory
Control ActAustralia. Industrial : On the inventory, or in compliance with the inventory
Chemical (Notification and
Assessment) ActCanada. Canadian : All components of this product are on the Canadian DSL
Environmental Protection
Act (CEPA). Domestic
Substances List (DSL)

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals : On the inventory, or in compliance with the inventory
Inventory (KECI)Philippines. Inventory of : On the inventory, or in compliance with the inventory
Chemicals and Chemical
Substances (PICCS)China. Inventory of Existing : On the inventory, or in compliance with the inventory
Chemical Substances
(IECSC)New Zealand. Inventory of : On the inventory, or in compliance with the inventory
Chemicals (NZIoC), as
published by ERMA New
Zealand

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National regulatory information

- SARA 302 Components** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- SARA 313 Components** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
- SARA 311/312 Hazards** : Acute Health Hazard
- California Prop. 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 2	2
Flammability	: 1	1
Physical Hazard	: 0	
Instability	:	0

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process,

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unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group