

Safety Data Sheet dated 6/11/2015, version 0

## 1. IDENTIFICATION

### Product identifier

Identification of the substance

Trade name: CITRIC ACID

Other means of identification:

CAS number: 5949-29-1

EC number: 201-069-1

Product codes: 30-036-0050, 30-036-1050

### Recommended use of the chemical and restrictions on use

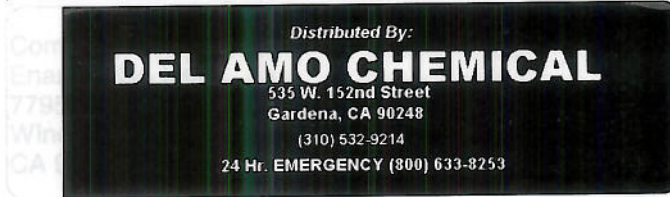
Recommended use:

FOR PROFESSIONAL USE

FOOD ADDITIVE

Restrictions on use:

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party



## 2. HAZARD(S) IDENTIFICATION

### Classification of the chemical

⚠ Warning, Eye Irrit. 2A, Causes serious eye irritation.

### Label elements

Symbols:



Warning

### Hazard statements:

H319 Causes serious eye irritation.

### Precautionary statements:

P264 Wash hands thoroughly after handling.

P280 Wear eye/face protection: wear eye glasses with side 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.

### Special Provisions:

None

Hazards not otherwise classified identified during the classification process:


None

Ingredient(s) with unknown acute toxicity:  
None.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substances

Identification of the substance  
Chemical characterization: CITRIC ACID  
CAS number: 5949-29-1  
EC number: 201-069-1  
>= 90% CITRIC ACID MONOHYDRATE  
CAS: 5949-29-1, EC: 201-069-1  
 A.3/2A Eye Irrit. 2A H319

#### Mixtures

N.A.

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### 4. FIRST-AID MEASURES

#### Description of necessary measures

##### In case of skin contact:

Immediately take off all contaminated clothing.  
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.  
Wash thoroughly the body (shower or bath).  
Remove contaminated clothing immediately and dispose off safely.  
After contact with skin, wash immediately with soap and plenty of water.

##### In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.  
Protect uninjured eye.

##### In case of Ingestion:

Induce vomiting. SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet.

##### In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

##### Most important symptoms/effects, acute and delayed

None

##### Indication of immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### Treatment:

None

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### 5. FIRE-FIGHTING MEASURES

#### Suitable extinguishing media:

Water.  
Carbon dioxide (CO<sub>2</sub>).

#### Unsuitable extinguishing media:

None in particular.

#### Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

#### Hazardous combustion products:

None

#### Explosive properties:

N.A.

#### Oxidizing properties:

N.A.

#### Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus .  
Collect contaminated fire extinguishing water separately. This must not be discharged into

drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Remove persons to safety.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

Methods and materials for containment and cleaning up

Wash with plenty of water.

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## 7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not use on extensive surface areas in premises where there are occupants.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

Storage temperature:

Store at ambient temperature.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

No occupational exposure limit available

Appropriate engineering controls:

None

Individual protection measures

Eye protection:

Eye glasses with side protection.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection.

Suitable material:

UNI EN 420/UNI EN 374

Respiratory protection:

Particle filter device (DIN EN 143).

Thermal Hazards:

None

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and colour: Solid

Odour:	None	
Odour threshold:	N.A.	
pH:	1,8 (5%)	
Melting point / freezing point:	153 °C	
Initial boiling point and boiling range:	N.A.	
Solid/gas flammability:	N.A.	
Upper/lower flammability or explosive limits:		N.A.
Vapour density:	N.A.	
Flash point:	N.A. °F	
Evaporation rate:	N.A.	
Vapour pressure:	N.A.	
Relative density:	850-905 Kg/m <sup>3</sup>	
Solubility in water:	209 g/L (25°C)	
Solubility in oil:	N.A.	
Partition coefficient (n-octanol/water):	N.A.	
Auto-ignition temperature:	1000-1020 °C	
Decomposition temperature:	N.A.	
Viscosity:	N.A.	
Miscibility:	N.A.	
Fat Solubility:	N.A.	
Conductivity:	N.A.	
Substance Groups relevant properties		N.A.

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## 10. STABILITY AND REACTIVITY

### Reactivity

Stable under normal conditions

### Chemical stability

Stable under normal conditions

### Possibility of hazardous reactions

It may generate flammable gases on contact with dithiocarbamates, elementary metals (alkalis, alkaline earth, powder alloys or vapours) nitrides, and powerful reducing agents.

It may generate toxic gases on contact with dithiocarbamates, inorganic fluorides, inorganic sulphides, and powerful oxidising agents.

It may catch fire on contact with elementary metals (alkalis and alkaline earth).

### Conditions to avoid

Stable under normal conditions.

### Incompatible materials

None in particular.

### Hazardous decomposition products

None.

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## 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

#### Toxicological information of the substance:

CITRIC ACID MONOHYDRATE - CAS: 5949-29-1

LD50 (oral, rat) : 11700 mg/Kg

#### Substance(s) listed on the NTP report on Carcinogens:

No.

#### Substance(s) listed on the IARC Monographs:

None.

#### Substance(s) listed as OSHA Carcinogen(s):

No.

#### Substance(s) listed as NIOSH Carcinogen(s):

No.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Adopt good working practices, so that the product is not released into the environment.  
CITRIC ACID MONOHYDRATE - CAS: 5949-29-1

#### a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 440 mg/l - Duration h: 48 - Notes: (Citric Acid Monohydrate)

Endpoint: LC50 - Species: Daphnia = 1535 mg/l - Duration h: 24 - Notes: (Citric Acid Monohydrate)

Endpoint: LC50 - Species: Algae = 425 mg/l - Duration h: 168 - Notes: (Citric Acid Monohydrate)

Endpoint: LC50 - Species: Bacteria > 10000 mg/l - Duration h: 16 - Notes: (Citric Acid Monohydrate)

### Persistence and degradability

N.A.

### Bioaccumulative potential

N.A.

### Mobility in soil

N.A.

### Other adverse effects

None

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## 13. DISPOSAL CONSIDERATIONS

### Waste treatment and disposal methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

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## 14. TRANSPORT INFORMATION

### UN number

Not classified as dangerous in the meaning of transport regulations.

### UN proper shipping name

N.A.

### Transport hazard class(es)

N.A.

### Packing group

N.A.

### Environmental hazards

Marine pollutant: No

N.A.

### Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

N.A.

### Special precautions

N.A.

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## 15. REGULATORY INFORMATION

### USA - Federal regulations

#### TSCA - Toxic Substances Control Act

This substance is listed on the TSCA inventory.

TSCA listed substances:

None.

#### SARA - Superfund Amendments and Reauthorization Act

Section 302 – Extremely Hazardous Substances: No.

Section 304 – Hazardous substances: No.

Section 313 – Toxic chemical list: No.

#### CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

No substances listed.

#### CAA - Clean Air Act

CAA listed substances:

None.

CWA - Clean Water Act

CWA listed substances:

None.

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

None.

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

No.

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

Yes.

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

Yes.

## 16. OTHER INFORMATION

Full text of phrases referred to in Section 3:

H319 Causes serious eye irritation.

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Disclaimer:

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.

This Safety Data Sheet cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
NFPA:	National Fire Protection Association

# Safety Data Sheet

## CITRIC ACID

NIOSH: National Institute for Occupational Safety and Health  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
PNEC: Predicted No Effect Concentration.  
RID: Regulation Concerning the International Transport of Dangerous Goods  
by Rail.  
STE: Short-term exposure.  
STEL: Short Term Exposure limit.  
STOT: Specific Target Organ Toxicity.  
TLV: Threshold Limiting Value.  
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day.  
(ACGIH Standard).