

Specification Data Sheet Citric Acid Monohydrate

General Description:

Product Name	: -	Citric Acid Monohydrate
Formula	: -	C ₆ H ₈ O ₇ · H ₂ O
Form	:-	crystalline
Color	: -	white
Odor	:-	odorless
Molecular Weight	:-	210,14 g/mo

Chemical Properties: -

Melting point	135 - 152 °C
Boiling point	(decomposition)
Density	1,54 g/cm ³ at 20 °C
vapor pressure	< 1 Pa at 25 °C (anhydrous substance)
PH	1,85 at 50 g/l at 20 °C
Water Solubility	ca.880 g/l at 20 °C
Decomposition temperature	> 170 °C
Bulk density	ca.800 - 1.000 kg/m ³

Other Properties

- Strongly acidic (pH in a 5 % solution approx. 1.8)
- Typical, practically odourless
- Very soluble in water
- Freely soluble in ethanol (96 %)
- Sparingly soluble in ether
- Non-toxic
- Low reactive
- Chemically and microbiologically stable
- Fully biodegradable

Main functions

- pH adjuster
- Acidifier
- Chelating agent
- Buffering agent
- Flavour enhancer
- Retarder
- Stabiliser
- Antioxidant

Application: -

In Food

it is widely used as organic acid and pH-control agent, flavoring and preservative in food production in candy, cookies, biscuits, canned fruits, jams, and jellies, Baby Food, Infant Formula, Bakery, Cereals, Snacks, Confectionery, Dairy, Desserts, Ice Cream, Meat, Seafood, Ready Meals, Instant Food, Sauces, Dressings, Seasonings.

In Beverage

it can be used as acidity regulator and antioxidant in beverage such as in Alcoholic Beverages, Carbonated Soft Drinks, Instant Drinks, Syrups, Juice Drinks, RTD Tea and Coffee, Sports and Energy Drinks, Waters

In Pharmaceutical

It can be used as thrombin inhibitor and fungicide in Pharmaceutical.

In Health and Personal care

It is used in cosmetics and personal care products as a preservative and to adjust the ph balance. Citric acid is also one of a group of ingredients known as alpha hydroxy acids that are used as the active ingredients in chemical skin peels. Citric acid was used in almost every category of cosmetic product with over 10,000 reported uses. Citric Acid can be used in baby products, make-up, lipstick, bath products, soaps and detergents, hair dyes and colors, and hair and skin care products.

In Agriculture/Animal Feed/Poultry

It can be used as antioxidant and ph regulator in Agriculture/Animal Feed/Poultry feed such as in broiler feed, chicken feed.

In Other Industries

It is widely used as cleansing agent, surfactant in various other industries.

As cleansing agent: in plumbing cleaning to remove scale.

As anti-crease agent: in textile to prevent formaldehyde contamination.

As additive: in plastic manufacturing to improve mechanical properties.

As concrete retardant: in construction to improve concrete quality.

Industrial Applications

- | | |
|------------------------------|---------------------------|
| ▪ Adhesives, Sealants | ▪ Metal Surface Treatment |
| ▪ Agrochemicals, Fertilisers | ▪ Oil Drilling |
| ▪ Construction | ▪ Ore Mining and Refining |
| ▪ Fine Chemicals | ▪ Paper |
| ▪ Inks, Paints, Coatings | ▪ Plastics, Polymers |
| ▪ Textile, Leather | ▪ |

Standard Packaging

- 25 kg Bag
- Other packing considered on request
- Citric acid monohydrate is available in various granulations.

Nelco Gulf – Abu Dhabi

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