

CITRIC ACID
MONOHYDRATED
E 330

| GENERAL CHARACTERISTICS | |
|--------------------------------|--|
| Physical aspects | Colorless crystals or white crystalline powder |
| Organoleptic aspects | Strong acid taste Free from smell |
| Origin | Citric acid is obtained by a fermentation process with the microorganism <i>Aspergillus Niger</i> to convert carbohydrates into acid |
| Chemical status | 2-hydroxy-1,2,3-propanetri-carboxylic acid monohydrated Chemical formula : $C_6H_8O_7, H_2O$ Molecular mass : 210,14 g/mol |

| DESCRIPTION | |
|-----------------------------------|--|
| Functionality / Properties | <ul style="list-style-type: none"> ➤ Very soluble in water (gives a clear solution), easily soluble in 96% alcohol and ethanol, soluble in ether ➤ Helps control the Aw value ➤ Has an anti oxidant effect together with other products ➤ Fast assimilation ➤ Low hazardous product ➤ Used in baking powders in place of tartaric acid |
| Use | <ul style="list-style-type: none"> ➤ Gives a fresh feeling and an acidic taste to still or sparkling drinks ➤ To use for powdered drink mixes ➤ Powdered drinks ➤ Acidifier: pH corrective for production of candies, fruits jellies... |

| RECIPE | |
|-------------------------------------|--|
| Jam : adapted to most fruits | |
| Ingredients | <ul style="list-style-type: none"> ➤ 500 g of fruits ➤ 550 g of sugar ➤ 3 g of Pectin Extra slow set ➤ 3 g of citric acid solution |
| Realization | <ul style="list-style-type: none"> ➤ Premix pectin with one part of sugar (about 50g) ➤ Dust the premix et mix with fruits ➤ Heat to at least 85°C ➤ Add sugar and mix ➤ Continue cooking to get wanted dry extract (usually 55°Brix) ➤ Add citric acid solution if required |



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| INSTRUCTIONS OF USE | |
|--|---------------------------|
| APPLICATIONS | RECOMMENDED DOSAGE |
| Dehydrated potatoes in flakes | 100 to 200 mg/Kg |
| Industrial egg preparation (eggs and egg whites), pineapple juice natural or concentrated, fractionated fats and oils and reduced fat margarines | 1 to 3 g/Kg |
| Pear, peach or apple nectars or a mix of these nectars, decoration, toppings and glazings for baked items, confectionery. Cereals products cooked by extrusion. Pâtés with garlic, shallots and onions. Spreads and reduced fat dairy spread specialities, confectionery, chewing gum, jams, gellies, marmalades, chestnut creams and purees and other nuts, candied fruits or flower petals, fruit preparation. | 2 to 5 g/Kg |
| Flavoured alcoholic drinks made from grapes or apples, boiled eggs in brine | 3 to 6 g/Kg |
| Ice cream and sorbets, preparation for ice creams and sorbets | 5 to 10 g/Kg |
| Powdered miw preparation for pastry creams, melted concentrated butter | 30 to 50 g/Kg |

| REGULATORY LIMITS | |
|---|-------------------------------------|
| CATEGORIES OF FOODSTUFFS | MAXIMUM QUANTITY |
| 03 Edible ices | Quantum Satis (Group I - Additives) |
| 04 Fruit and vegetables | |
| 04.2.1 Dried fruit and vegetables 04.2.2 Fruit and vegetables in vinegar, oil, or brine 04.2.4.1 Fruit and vegetable preparations excluding compote 04.2.5.4 Nuts butter and nut spreads 04.2.6 Processed potato products | Quantum Satis (Group I – Additives) |
| 04.1.2 Peeled, cut and shredded fruit and vegetables – Only prepacked refrigerated unprocessed fruit and vegetables ready for consumption and prepacked unprocessed and peeled potatoes 04.1.3 Frozen fruit and vegetables 04.2.3 Canned or bottled fruit and vegetables 04.2.4.2 Compote, excluding products covered by category 16 Desserts 04.2.5.1 Extra jam and extra jelly as defined by Directive 2001/113/EC 04.2.5.2 Jam, jellies and marmalades and sweetened chestnut puree as defined by Directive 2001/113/EC 04.2.5.3 Other similar fruit or vegetable spreads | Quantum Satis |



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| | | |
|---|---|-------------------------------------|
| 05 Confectionery | | |
| | 05.1 Cocoa and chocolate products as covered by Directive 2000/36/EC - only energy-reduced or with no added sugar – As glazing agent only 05.2 Other confectionery including breath refreshing microsweets 05.3 Chewing gum 05.4 Decorations, coatings and fillings, except fruit based fillings covered by category 4.2.4 Fruit and vegetable preparations, excluding products covered by 5.4 | Quantum Satis (Group I – Additives) |
| | 05.1 Cocoa and chocolate products as covered by Directive 2000/36/EC | 5 000 mg/kg |
| | 05.1 Cocoa and chocolate products as covered by Directive 2000/36/EC – Only milk chocolate | 10 000 mg/kg |
| 07 Bakery wares | | |
| | 07.1 Bread and rolls except products in 7.1.1 Bread prepared solely with the following ingredients: wheat flour, water, yeast or leaven, salt and 7.1.2 Pain courant français; Friss búzakenyér, fehér és félbarna kenyerek 07.2 Fine bakery wares | Quantum Satis (Group I - Additives) |
| | 16 Desserts excluding products covered in categories 1 Dairy products and analogues, 3 Edible ices and 4 Fruit and vegetables | Quantum Satis (Group I - Additives) |
| Non exhaustive list – Refer to regulation (EC) N° 1333/2008 on food additives of 16th December 2008 and amended versions. | | |

SPECIFICATIONS

Physico-chemical specifications

| | |
|--|-----------------------------|
| Titration | 99.7 – 100.3 |
| Calcination residues | Max. 0.05% |
| Sulphur ashes | Max. 0.05% * |
| Oxalic acid (C₂H₂O₄, H₂O) | Max. 100 ppm * |
| pH (5%) | About 1.85 |
| Density | 600 – 900 kg/m ³ |
| Loss on dry | Max. 8,8 % * |

Heavy metals

| | |
|----------------|--------------|
| Mercury | Max. 1 ppm |
| Lead | Max. 0.5 ppm |
| Arsenic | Max. 1 ppm |

* In accordance with the requirements regarding purity criteria of the regulation (EU) No 231/2012 of March, 9th, 2012 and its modified versions.



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| NUTRITIONAL INFORMATION FOR 100G | |
|---|--------------------|
| Energetic Value | 275 Kcal / 1190 KJ |
| Lipids | 0 g |
| - Saturated Fatty Acids | 0 g |
| Carbohydrates | 0 g |
| - Sugars | 0 g |
| Fibers | 0 g |
| Proteins | 0 g |
| Sodium | 0.1 mg |

| ALLERGENS | | |
|--|-----------------|----------------------------|
| | Presence | Cross contamination |
| Peanuts and products thereof | | |
| Celery and products thereof | | |
| Cereals, gluten and products thereof | | |
| Crustaceans and products thereof | | |
| Tree nuts and products thereof | | |
| Sesames seeds and products thereof | | |
| Molluscs and products thereof | | |
| Mustard and products thereof | | |
| Milk and milk products | | |
| Lupin and products thereof | | |
| Eggs and products thereof | | |
| Fish and products thereof | | |
| Soya and products thereof | | |
| Sulphur dioxide and sulphites > 10 ppm | | |
| Coconuts and products thereof | | |



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| REGULATORY DATA | |
|--------------------------|--|
| GMO | <i>Referring to regulation EC N° 1829/2003 and N° 1830/2003, the product hasn't been produced of genetically modified organisms nor contains genetically modified substance.</i> |
| Ionization | <i>The product hasn't been treated by ionization, and it is not made with raw materials treated by ionization.</i> |
| Nanomaterials | <i>The product is not made with nanotechnologies and does not contain nonmaterial referring to regulation EC n°1169/2011.</i> |
| N° CAS / CE | 5949-29-1 / 201-069-1 |
| Safety Data Sheet | Safety Data Sheet available on request. |

| DIET | | |
|--------------------|---------------------|------------------|
| | Suitable for | Certified |
| Halal | X | |
| Kasher | X | X |
| Vegans | X | |
| Vegetarians | X | |

| PACKAGING/STORAGE | |
|---------------------------|--|
| Packaging | 150 g or 1 Kg plastic tin net – 25 Kg bag |
| Storage conditions | Avoid storage at temperature above 30°C and/or in humidity conditions above 70 % |
| Shelf life | 3 years minimum in its original and unopened packaging |

ARTICLE CODE 150 g ⇒ 10107 1 Kg ⇒ 106A 25 Kg ⇒ 107F

We reserve the right to modify this data according to the evolution of our products.

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