

Precedente edizione 5

Del 13/01/2016

Motivo della modifica rispetto alla precedente edizione

modifica della tabella dei valori nutrizionali

DESCRIPTION

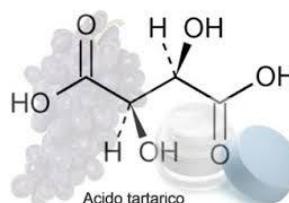
(2R,3R)-2,3-dihydroxybutane-1,4-dioic Acid

Molecular Weight = 150.09

EC-No. E334

CAS-No. 87-69-4

EINECS-No. 2017660



Tartaric Acid appears as colourless crystals or white powder, almost odourless, of strongly acid taste, stable in air and hygroscopic at relative humidity higher than 75 %.

Widely spread in nature, it is present in many fruits, free or combined with potassium, calcium or magnesium. Examined in the ancient times as acid salt of potassium found in deposit as fine crystalline scale during the fermentation of grape and tamarind musts, it was called faecula (little yeast) by the Romans and got then the present denomination from the word tartarus (tartarus) of medieval and alchemistic origin. Centuries of large use witness the safe properties of Tartaric Acid, confirmed universally in the related food laws. The WHO/FAO, through the Joint Expert Committee on Food Additives (JECFA 1977-1983-1990) approved its ADI (Acceptable Daily Intake) of 30 mg/kg of body weight for L(+) Tartaric Acid, while the D and DL forms of synthetic and unnatural origin were forbidden.

Our tartaric acid has a natural origin, and derive from wine by-product through chemical and physical reaction.

The quality system of Caviro Distillerie for the control of production process and finished product grants the compliance of our Tartaric Acid to the national and international requirements: ISO9001:2008, FSSC22000:2013, OHSAS18001:2007.

COMPLIANCE

Tartaric Acid produced by Caviro Distillerie is in compliance to the specific currents:

PH.EUR. 9.0- European Pharmacopoeia

F.U. XII- Farmacopea Ufficiale

D.M. n° 199 del 11 Novembre 2009

B.P. 2017- British Pharmacopoeia

J.P. 17- Japanese Pharmacopoeia

REG/UE/231/2012 – Food additives

U.S.P. 40- United States Pharmacopoeia

N.F.35 - National Formulary

F.C.C. 10 - Food Chemical Codex

D.A.B. 2015- Deutsches Arzneibuch

Codex Oenologiques International

CHEMICAL SPECIFICATION

| PARAMETRES | UM | MEDIUM VALUE | LIMIT VALUE | REFERENCE |
|------------------------------|------------|----------------|---------------|--------------------------|
| Assay: | % | 99,8 - 100,5 | 99,8 – 100,5 | Ph.Eur. |
| Specific rotation (20% w/v): | ° | +12,0 - +12,8 | +12,0 - +12,8 | Ph.Eur. |
| Melting point | ° C | 168 – 170 | 168 – 170 | D.M. 199 – 11.11.2009 |
| Oxalate: | ppm | < 20 | 50 | Ph.Eur. |
| Chloride: | ppm | < 20 | 100 | Ph.Eur. |
| Sulfate: | ppm | < 40 | 100 | * inside limit of Caviro |
| Calcium: | ppm | < 50 | 200 | Ph.Eur. |
| Heavy Metal (as Pb): | ppm | < 4 | 4 | * inside limit f Caviro |
| Loss on drying: | % | < 0,05 | 0,2 | Ph.Eur. |



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| Sulphated Ash: | % | < 0,05 | 0,05 | F.C.C. |
|--|-----|----------------------|------|-------------------------|
| Lead | ppm | < 0,05 | 0,5 | * inside limit f Caviro |
| Mercury | ppm | < 0,10 | 0,5 | * inside limit f Caviro |
| Nickel | ppm | < 0,20 | 0,5 | * inside limit f Caviro |
| Copper | ppm | < 0,20 | 0,5 | * inside limit f Caviro |
| Zinc | ppm | < 0,10 | 0,5 | * inside limit f Caviro |
| Iron | ppm | < 5 | 10 | Codex Oenologique Int. |
| Arsenic | ppm | < 1 | 1 | * inside limit f Caviro |
| Cadmium | ppm | <0.01 | 0.5 | * inside limit f Caviro |
| Ochratoxin | ppb | <LOD | <LOD | * inside limit f Caviro |
| Mycotoxins B1/B2, G1/G2, M1 Zeralenone, Deoxynivalenol (DON) Fumonisin B1+B2 | ppb | <LOD | <LOD | * inside limit f Caviro |
| Pesticide | | Legal limit for wine | | See EC regulations |

* Caviro limit is reported when it's more strict than the required limit required by the internationals Farmacopee

PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|-------------------------|----------------------|-----------------|-----------------|
| Solubility: | in water | 139 | g/100ml a 20 °C |
| | | 147 | g/100ml a 25 °C |
| | in alcohol | 33 | g/100ml a 25 °C |
| | in ether | 0,4 | g/100ml a 25 °C |
| Specific weight: | real | 1,7598 | g/ml |
| | apparent | from 0,8 to 1,1 | g/ml |
| Melting Point: | | from 168 to 170 | °C |
| pH | (1470 g/l in water): | 2,2 | |

STANDARD GRANULOMETRIES (unit misure microns) – Other granulometries are available on customer request.

| TYPOLOGY | MICRONS | LIMITS |
|------------------------------|---------|----------|
| Granular type 3 | > 1000 | 5 % max |
| | < 630 | 20 % max |
| Granular type 2 | > 710 | 5 % max |
| | < 425 | 20 % max |
| Thin granular type 2V | > 500 | 5 % max |
| | < 250 | 10 % max |
| Thin granular type UB | > 300 | 5 % max |
| | < 75 | 10 % max |
| Powder type 0 | > 200 | 2 % max |

The above particle sizes are representative of the standard production

MICROBIOLOGICAL PARAMETERS

| PARAMETER | VALUE | LIMIT |
|-------------|-----------------|-----------------|
| Total Count | < 20 U.F.C./10g | Caviro limit(*) |
| Mould | < 10 U.F.C./10g | Caviro limit(*) |

CAVIRO DISTILLERIE S.R.L. S.U. - 48018 FAENZA (RA) - Via Convertite, 8 - Tel. 0546 623678 - Fax 0546 626470

E-mail: caviro@caviro.it - Indirizzo pubblico di posta elettronica certificata: cavirodistillerie@legalmail.it - Sito Web: www.caviro.it

P.IVA IT 02274140397 - C.F. e Registro Imprese RA n. 02274140397 - R.E.A. RA 187130 - Capitale Sociale € 36.500.000,00 i.v.

Società soggetta all'attività di direzione e coordinamento di CAVIRO Soc. Coop. Agricola - Faenza (RA)



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| | | |
|--------------------|-----------------|-----------------|
| Yeast | < 10 U.F.C./10g | Caviro limit(*) |
| Salmonella | Absent/25g | Caviro limit(*) |
| Enterobacteriaceae | Absent/25g | Caviro limit(*) |
| Listeria | Absent/25g | Caviro limit(*) |

(*) Caviro limit is a limit of “acceptability”, obtained from a specific experience collected, in **Caviro Distillerie – Establishment of Treviso**, from previous analytical investigations of the same type.

PACKAGING

Our Tartaric Acid is packed in 15, 25 kg bags of multiply paper sewn on the top with an internal polyethylene bag thermowelded. Alternatively it can be packed into big bags of polypropylene coated with PE inside weighting from 500 to 1250 kg upon request. The bags or big bags are palletized and wrapped with shrinkable polyethylene.

Each pallet is composed by product of the same batch and each batch belongs to one single process batch number and size grade. Every bag or big bag is labelled with the law indications and batch identifications.

Batch is identified as: C02X0819:

- C is product classification
- 02 is year of production
- X is quality of the obtained product
- 08 is the week of the year when the production is beginning
- 19 is the day of the month

Therefore the packaging is beginning 19th February 2002. Other details are available on request.

STORAGE AND EXPIRE DATE

The Tartaric Acid is chemically stable, but we recommend our customers to operate a good storage rotation, to avoid pallets double-stacking and anyway to reduce the storage time to less than 12 months in order to avoid the caking of the material. It must be kept in the original packing, in a dry and cool place, avoiding to expose it to very hot or very cold temperatures (**10-25°C recommended**) and to direct sun light.

Enological code doesn't assign an expire date “best before” to tartaric acid. To align our product to the request of the pharmacopeia market we choose to assign a conventional expire date of 4 years plus the months of the year when the product have been packed.

USE AND APPLICATION

Acidifier, antioxidant, flavour exalter and stabilizer, metals complexer and sequestrator.

1. Food:

Production of tinned food, jam, jelly, confectionery and biscuits in general.

Production of soft drinks and table waters. Acidifier in wine-making field.

Intermediary for the production of tartaric esters, used as emulsifiers in all the main food industries.

2. Pharmaceutical and Cosmetic:

Preparation of effervescent tablets and soluble drugs. Excipient and acidifier in syrups and antibiotics.

Production of natural beauty creams for face and body.

3. Technical:

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It is used in textiles (dyeing and printing), tannings, ceramics e galvanoplastics.

Look at REACH rules in MSDS MSDS TV – 24



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NUTRITIONAL DATA

| Energy | (Kilojoules) | (Kilocalories) | Valori Medi (g/100g) |
|---------------------------|---------------------------|----------------|----------------------|
| | 1298.2 | 299.6 | |
| Protein | | | |
| Total Carbohydrate | | | <0.55g |
| Total Sugar | | | <0.5g |
| | Of which fructose | | <0.1% |
| | Of which glucose | | <0.1% |
| | Of which sucrose | | <0.1% |
| | Of which maltose | | <0.1% |
| | Of which lactose | | <0.1% |
| | of which Starch | | <0.5% |
| Fat | | | <0.1g |
| | of which Saturates | | <0.01g |
| | of which Mono-unsaturates | | <0.01g |
| | of which Polyunsaturates | | <0.01g |
| | of which trans | | <0.01g |
| Fiber | | | <0.1g |
| Salt (NaCl) | | | <0.03g |
| Ash | | | <0.05g |
| Humidity | | | 0.2g |

SAFETY

Tartaric Acid is not included in the EEC/UNO list of dangerous substances. Its acidity anyway requires the user to avoid direct contact with eyes and skin, inhalation and ingestion. Small sprinkles can be washed with plenty of water.

However we suggest to consult our Material Safety Data Sheet for further information.

In water solution it is moderately corrosive, so for contact materials it is better to use stainless steel 316-L or plastics.

Tartaric Acid gets carbonized with exhalation of acrid fumes when exposed to a continuous and intense heat source or flame, but it stops burning as soon as the heat source is eliminated. Dangerous decay products: none. Dangerous reactions: none.

This products is completely biodegradable, but large spreading may require a neutralization before discharge, anyway following the environmental rules and laws in force on the spot.

In terms of transport while being present classifications corrosive And a H318 and H314 not, history will not come And subject to transport ADR. The product is not subject to the provisions and the applicable legislation on Transport of Dangerous Goods by Road (ADR) and by Rail (RID), by sea (IMDG Code) and by air (IATA).

Look at MSDS TV – 24

GUARANTEE

The information contained in this Technical Sheet is based on our present knowledge, so they cannot be considered as guarantees of specific products properties and they cannot justify any legal contractual connection.