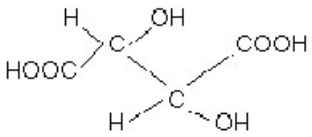
TECHNICAL DATA SHEET

revision nr. 12 of 12/10/2017

Product: ***NATURAL L(+) TARTARIC ACID – E334***

DESCRIPTION

$C_4H_6O_6$



(2R,3R)-2,3-dihydroxybutane-1,4-dioic Acid
Molecular Weight= 150,09
EC-No. E334
CAS-No. 87-69-4
EINECS-No. 201-766-0

The Natural 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. The raw material for the production of Natural Tartaric Acid is Calcium Tartrate, which is obtained from distilled wine lees.
The WHO/FAO, thru 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 quality system for the control of production process and finished product grants the compliance of our Tartaric Acid to the national and international requirements of HACCP. The shelf-life of the product, mentioned on our labels, is 5 years.
SINCE NATURAL L(+) TARTARIC ACID E334 IS A HYGROSCOPIC PRODUCT (THAT'S THE REASON WHY IT CAKES VERY QUICKLY) WE SUGGEST TO USE THE ABOVE PRODUCT WITHIN 6 (SIX) MONTHS.

COMPLIANCE

Our Natural Tartaric Acid, for food use, is complying with all the requirements of the following pharmacopoeias:

- Ph.EUR. – European Pharmacopoeia
- U.S.P. – United States Pharmacopoeia
- N.F. – National Formulary
- F.U. – Farmacopea Ufficiale
- REG. 2012/231/EC
- F.C.C. – Food Chemical Codex
- J.P. – Japanese Pharmacopoeia

PHYSICAL, CHEMICAL AND NUTRITIONAL PROPERTIES

Solubility:	in water	139 g/100ml at 20 °C	Specific weight:	real	1,7598 g/ml
		147 g/100ml at 25 °C		apparent from	0,8 to 1,1 g/ml
	in alcohol	33 g/100ml at 25 °C	Melting point:	from	168 to 170 °C
	in ether	0,4 g/100ml at 25 °C	pH (Solution 0,1N):		2,2
Energy:	1300 kJ/100 g - 300 kcal/100 g				

MAIN CHEMICAL SPECIFICATIONS (FOR FOOD USE)

Assay:	da 99,7 a 100,5%	Calcium:	25 ppm max
Specific Rotation (20% w/v):	da +12,0 a 12,8°	Heavy Metals (as Pb):	2 ppm max
Oxalates:	50 ppm max	Loss on drying:	0,2 % max
Chlorides:	30 ppm max	Sulphated Ash:	0,05 % max
Sulphates:	150 ppm max	Iron:	3 ppm max
Lead:	0,05 ppm max	Arsenic:	0,05 ppm max
Mercury:	0,05 ppm max	Cadmium:	0,05 ppm max

DISTILLERIE MAZZARI S.p.A.

STANDARD PARTICLE SIZES (microns)

Granular Type 4	> 1000	5% max
	< 500	10% max
Granular Type 3	> 600	5% max
	< 300	10% max
Granular Type 2	> 400	5% max
	< 200	10% max
Granular Type 2C	> 250	20% max
	< 125	10% max
Fine Granular Type 1	> 200	25% max
Granular Type ENO	> 1000	5% max
Powder Type A200	> 200	10% max
Powder Type A63	> 63	10% max

Other size grades are available upon request from the customer.

PACKAGING

Our Natural Tartaric Acid is packed in 15 or 25 Kg bags of paper sewn on the top with an internal polyethylene bag thermowelded. Alternatively, it can be packed into big-bag of polypropylene internally coated with polyethylene weighing from 500 to 1500 Kg upon request. The bags are palletized and wrapped with shrinkable polyethylene. Each pallet is composed by product of the same batch. Every bag or big-bag is labelled with the law indications and the batch identifications. Other types of packaging are available upon request of the customer.

STORAGE

Our Natural Tartaric Acid is chemically stable, but we recommend our customer to operate a good storage rotation, to avoid pallets double-stacking and anyway to reduce the storage time to less than 6 months in order to avoid the caking of the material. It must be kept in the original packing, in a dry cool place, avoiding to expose it to very hot or very cold temperatures and to direct sun light.

USE AND APPLICATIONS

Acidifier, antioxidizer, emulsifier, flavour exalter and stabilizer.

Food: Production of tinned food, jam, jelly, confectionery and biscuits in general.
Production of soft drinks and table waters. Acidifyer in wine-making field.
Intermediary for the production of tartaric esters, used as emulsifiers in all the main food industries.

Pharmaceutical and Cosmetic: Preparation of medicines, effervescent tablets and soluble drugs. Excipient and acidifier in syrups and antibiotics.
Production of natural beauty cream for face and body.

Technical: Retarding agent in the preparation of gypsum, it improves plasticity and resistance of cements and concretes and it is used in the formulation of waterproof cements and heat-insulator.
It is also used in textiles (dyeing and printing), tannings, ceramics e galvanoplastics.

SAFETY

The Natural Tartaric Acid, as a result of Regulation EC N.1907/2006 and subsequent amendments and Regulation EC N. 1272/2008 and subsequent amendments, has been classified with the signal word “danger”, the hazard indication H318 “causes serious eye damage” and the hazard pictogram is GHS08 “corrosive”. In every bag, in addition to the picture of the pictogram, are indicated the following information:

- DANGER. Causes serious eye damage. Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Its acidity anyway requires the user to avoid direct contact with skin, inhalation and ingestion. Small sprinkles can be washed with plenty of water.
In water solution it is moderately corrosive, so for contact materials it is better to use Stainless Steel 316-L or superior or plastic materials. However, we suggest to consult our Safety Data Sheet for further information.

GUARANTEE

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