


**DISTILLERIE  
MAZZARI** S.p.A.

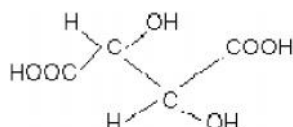
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 Part. IVA e Cod. Fisc. 00454950395

## TECHNICAL DATA SHEET

 Product: **NATURAL L(+) TARTARIC ACID**  
 Revision Date: 13/04/2011 rev. 8

### DESCRIPTION

C<sub>4</sub>H<sub>6</sub>O<sub>6</sub>

(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

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 TARTARIC ACID L(+) 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 Tartaric Acid is complying with all the requirements of the following pharmacopoeias:

Ph.EUR. – European Pharmacopoeia

REG. 2008/84/EC

U.S.P. – United States Pharmacopoeia

F.C.C. – Food Chemical Codex

F.U. – Farmacopea Ufficiale

J.P. – Japanese Pharmacopoeia

N.F. – National Formulary

### PHYSICAL, CHEMICAL AND NUTRITIONAL PROPERTIES

Solubility: in water 139 g/100ml at 20 °C

147 g/100ml at 25 °C

in alcohol 33 g/100ml at 25 °C

in ether 0,4 g/100ml at 25 °C

Energy: 1295 kJ/100 g - 299 kcal/100 g

Specific weight: real 1,7598 g/ml

apparent from 0,8 to 1,1 g/ml

Melting point: from 168 to 170 °C

pH (Solution 0,1N): 2,2

### MAIN CHEMICAL SPECIFICATIONS

Assay: da 99,7 a 100,5%

Specific Rotation (20% w/v): da +12,0 a 12,8°

Oxalates: 50 ppm max

Chlorides: 20 ppm max

Sulphates: 150 ppm max

Lead: 0,05 ppm max

Mercury: 0,05 ppm max

Calcium: 25 ppm max

Heavy Metals (as Pb): 2 ppm max

Loss on drying: 0,2 % max

Sulphated Ash: 0,05 % max

Iron: 3 ppm max

Arsenic: 0,05 ppm max

## STANDARD PARTICLE SIZES (microns)

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

Other size grades are available upon request from the customer.

## PACKAGING

Our Tartaric Acid is packed in 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 coated with polyethylene inside 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 batch identifications. Other types of packaging are available upon request of the customer.

## STORAGE

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

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.

Pharmaceutical and Cosmetic: Preparation of 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 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

Natural Tartaric Acid, as a result of Regulation EC N.1907/2006 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 is moderately corrosive, so for contact materials it is better to use stainless steel 316-L or plastic.

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.