

PRODUCT SPECIFICATION

DATE OF ISSUE
07-04-2021

MALIC ACID (E296)




NATUURLIJK NATUURLIJK PRODUCT CODE:
X1615, X1616, X1617, X1618

PRODUCTION:
11282501

NATUURLIJK
NATUURLIJK
special food ingredients

1. PRODUCT IDENTIFICATION

1.1 Supplier product information

Product name	Malic acid		
Production	11282501		
Product code	Content	EAN	Packaging
X1615	75g	8718309831455	Plastic jar and screw lock cap with warranty seal. Jar =  Cap = 
X1616	175g	8718309831462	
X1617	750g	8718309831479	
X1618	10kg	8718309831486	Blue bag =  in box

1.2 Scientific product information

Single ingredient

Main use	Food acid
Chemical name	DL Malic Acid
Chemical formula	C ₄ H ₆ O ₅
Production method	Chemical synthesis

1.3 Legislative product information

CAS number	617-48-1		
EU food additive	E296		
Country of Origin	South-Africa		
Organic products	For the purposes of Article 19(2)(b) of Regulation (EC) No 834/2007, malic acid may be used in the manufacture of processed organic foods.		

2. PRODUCT INFORMATION

2.1 Physical and Chemical properties

	Unit	Specification	Method
Appearance		Granules	
Colour		White to nearly white	
Odour/taste		Odourless	
Purity	%	99,48	FCC 11
Assay	wt%	99,75	
Water	wt%	0,13	

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Bulk density	g/cm ³	0,75	
Molecular weight	g/mole	134,0874	
Boiling point	°C	150	
Melting point	°C	128,4	
Flash point	°C	203	
pH		~2.3	10 g/L Water
Particle size	> 850µm	min. 99,83	

2.2 Microbiological data

Total plate count	cfu/g	max. 10	
Moulds	cfu/g	max. 10	
Yeasts	cfu/g	max. 10	
E Coli	cfu/g	absent	
Salmonella spp.	cfu/25g	absent	
Coliforms	cfu/g	absent	

2.3 Chemical analyses

Maleic acid	wt%	0,002	FCC 11
Fumaric acid	wt%	0,83	FCC 11
Arsenic (As)	ppm	<1	FCC 11
Heavy metals	ppm	<5	FCC 11
Chloride (Cl)	mg/kg	max. 40	Isegen Proc. 1.22.5.2.17
Mercury (Hg)	ppm	<0,1	FCC 11
Lead (Pb)	ppm	<2	FCC 11

2.4 Nutritional Information

2.4.1 Nutritional Values

Energy	kJ/100g	1300	
Energy	kcal/100g	300	
Protein	g/100g	0	
Carbohydrate:	g/100g	0	
Of which Sugars	g/100g	0	
Polyols	g/100g	0	
Starches	g/100g	0	

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Others	g/100g	0	
Fat:	g/100g	0	
Of which Saturated	g/100g	0	
Mono-unsaturated	g/100g	0	
Poly-unsaturated	g/100g	0	
Transfatty acids	g/100g	0	
Cholesterol	mg/100g	0	
Water	g/100g	0,3	
Organic acid	g/100g	99,9	
Dietary fiber	g/100g	0	

2.4.2 Minerals

Sodium (Na)	mg/100g	50	
Calcium (Ca)	mg/100g	0,2	
Iron (Fe)	mg/100g	0,1	
Ash (Minerals)	mg/100g	100	

3. FOOD INTOLERANCE

3.1 Allergens

Yes = ✓ / No = ✗	Contains	Direct Contamination	Cross-Contamination (Risk)
Barley	✗	✗	✗
Beef	✗	✗	✗
Cacao	✗	✗	✗
Carrot	✗	✗	✗
Celery and celery products	✗	✗	✗
Cereals containing gluten and products produced with these (wheat, rye, oats, spelt, barley)	✗	✗	✗
Chicken	✗	✗	✗
Coriander	✗	✗	✗
Crustaceans and Shellfish	✗	✗	✗
Eggs and egg products	✗	✗	✗

NATUURLIJK NATUURLIJK
special food ingredients
Sint Hubertus 115
NL-6713 JR Ede

T: +31 (0)318-220 081
E: info@natuurlijk-natuurlijk.nl
I: www.NatuurlijkNatuurlijk.eu
I: www.SpecialFoodIngredients.eu

Chamber of Commerce: 09133868
TAX: NL164780877B01
IBAN: NL82 INGB 000 952 0355
BIC: INGBNL2A

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Fish and fish products	X	X	X
Glutamate	X	X	X
Lupin and products thereof	X	X	X
Milk and milk products (including Lactose)	X	X	X
Molluscs and products thereof	X	X	X
Mustard and mustard products	X	X	X
Nuts and nut products (almonds, hazelnuts, walnuts)	X	X	X
Peanuts and peanut products	X	X	X
Pork	X	X	X
Sesame and sesame products	X	X	X
Soybean and soybean products	X	X	X
Sulphite (E221 - E228)	X	X	X
Sulphur dioxide (>10mg/kg)	X	X	X

3.2 Suitability for other diets:

Coeliacs	✓	Lactose intolerant	✓
Halal	✓	Vegans	✓
Kosher	✓	Vegetarian	✓

3.3 GMO Declaration:

Malic Acid does not contain genetically modified organisms and is not produced using raw materials of a genetically modified origin. At no stage during production does the product come into contact with genetically modified organisms.

3.4 Irradiation:

Malic Acid is not treated with ionizing radiation .

3.5 BSE/TSE declaration:

The used ingredients for Malic Acid are not of animal origin. The processing equipment and the packing material which is used to manufacture, pack or fill the products into the packing units do not come into contact with any meat or meat-by product.

3.6 Residual Solvents:

For the manufacturing of Malic Acid, no solvents are used.

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4. STORAGE CONDITIONS

Storage conditions	In closed original packaging. Must be kept cool and dry in a well-ventilated place.
Shelf life	24 months after production, under the above mentioned conditions.

5. FOOD SAFETY

5.1 Hygiene:

This product is produced in a facility with an on HACCP based food safety system.

5.2 Identifications of dangers:


Classification of the substance
(Regulation (EC) No 1272/2008) | Eye Irrit. 2; Causes serious eye irritation.

5.3 Labeling, directions for use:

5.3.1 Disclaimer:

These labeling directions are not required for packaging with a content of 125ml or less.

5.3.2 Hazards identification:

Hazard pictogram	
Signal Word	Warning
Hazard Statements	H319: Causes serious eye irritation.

5.3.3 Safety Recommendation:

Prevention	P264: Wash hands thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313: If eye irritation persists: Get medical advice/attention.
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6. EXTENDED PRODUCT INFORMATION

6.1 Usage

Malic acid is used to provide acidity to food products. And to a much lesser extent to chelate metal ions, from hard water or in wine.

Malic acid tastes less sharply acid than citric acid and is used to provide an acid taste that is less immediate but persists longer. It is used alone or in combination with other acids to give a range of acid impacts. It is particularly useful in product formulations that use intense sweeteners.

It has a lower melting point than citric acid, which is beneficial in the manufacture of boiled sweets.

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6.2 Dictionary

NL	The Netherlands	Appelzuur
GB	Great Britain (UK)	Malic acid, DL Malic acid, Hydroxysuccinic Acid
DE	Germany	Äpfelsäure, Apfelsäure
FR	France	Acide malique
ES	Spain	Ácido málico
PT	Portugal	Ácido málico
IT	Italy	Acido malico
DK	Denmark	Malinsyre, Æblesyre
NO	Norway	Eplesyre
SE	Sweden	Äppelsyra
FI	Finland	Omenahappo
IS	Iceland	Mikilli eplasýru
CZ	Czech Republic	Kyselina jablečná
SK	Slovak Republic	Kyselina jablčná
HU	Hungary	Almasav
HR	Croatia (Hrvatska)	Jabučna kiselina
GR	Greece	
SI	Slovenia	Mlečna kislina
PL	Poland	Kwas jabłkowy, Acidum malicum
RO	Romania	Acidul malic
BG	Bulgaria	Ябълчена киселина
RU	Russian Federation	Яблочная кислота
TR	Turkey	Malik asit

7. DISCLAIMER

Although we take great care in setting up this product specification, we cannot accept any liability for the completeness and fully accurateness of the information provided. The content of this Product Specification is completed to the best of our knowledge.

This document does not dismiss the user of his legal obligations with respect to food safety.

This product specification replaces any previously issued specifications.