

Technical data sheet

Fumaric acid (FA)

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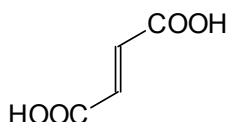
Synonyms

trans-2-Butenedioic acid; *trans*-1,2-Ethylenedicarboxylic acid; Allomaleic acid, (E)-2-Butenedioic acid.

Formula

 $C_4H_4O_4$

Structural formula



Molecular weight: 116.1

CAS number

110-17-8

EINECS number

203-743-0

EEC number

E297

Product specification

Characteristics	Unit	Value	Method*	Reference
Appearance		White or nearly white crystal	GM037	
Purity	%	99.7 min	GM005all01	
Moisture	%	0.25 max	GM010	ASTM E-203
Colour in alcohol (5% sol.)	Hz	10 max	GM011all01	ASTM D-1209
Ash (Sulphated)	ppm	50 max	GM015	ASTM D-482
Iron	ppm	5 max	GM008	
Arsenic	ppm	1 max	GM008	

Characteristics	Unit	Value	Method*	Reference
Heavy metals (as Pb)	ppm	10 max	GM008	
Lead	ppm	1 max	GM008	
Mercury	ppm	1 max	GM008	
Maleic acid	%	0.1 max	GM001all03	
(1) Microbiologic data				
• Bacteria	CFU/g	<10		
• Moulds & yeasts	CFU/g	<10		
• Total coliforms	CFU/g	<10		
• Faecal coliforms	CFU/g	<10		
• Salmonella	/25g	absent		

Note: ⁽¹⁾ This is a statistical control performed in an external laboratory and do not appear on the Certificate of Quality.

* Internal methods available upon request.

Typical properties

Characteristics	Unit	Value		
Melting point	°C	287		
Solubility in water @ 20°C	g/100 ml	0.7		
Bulk density	Kg	0.8 ÷ 0.9		
Granulometric analysis				
Granular FF				
• on 30 mesh sieve	%	2.5 max		
• on 140 mesh sieve	%	60 min		

Main applications

Fumaric acid is mainly used as food/feed additives. Due to its reactivity FA is a useful material for a variety of industrial applications such as paper sizing, unsaturated polyester resins (U.P.R.), alkyd and allyl resins, adhesives, lubricants.

Polynt fumaric acid complies with the current edition of **US FCC and USP-NF**.

It is produced in accordance with

- **FSSC 22000** and it complies with **Commission Regulation (EC) No 231/2012** for food additives, in terms of specific purity requirement.
- **FAMI-QS Code of Practice for Feed Additive and Premixture Operators** and it complies with **Regulation (EC) No 1831/2003** for additives used in animal nutrition. **Category:** Technological Additives (cat.1), **Functional Group:** Preservatives (a).

Fumaric acid is free from proteins, fibre, starches, vitamins, fats, preservatives, colours, antioxidants or milk products and every product having an animal origin.

It is suitable for the vegetarian, vegan, diabetic, Jewish or Muslim diets.

Polynt fumaric acid is Kosher certified.

Handling

Packaging: 25 kg or 50 lbs multi-wall paper bags;
500/1000 kg big bags;
bulk in autosilos

Storage: it must be stored at room temperature, away from open flames or other potential ignition sources, in a dry and well-ventilated place.

Shelf life: 24 months from production date.

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Refer to the appropriate Safety Data Sheet for health, safety and environmental information