

Malic Acid (E296)

Raw Materials

HARKE
Coatings &
Polymers

Fruit Acids

YOUR BENEFITS

- More sourness than Citric Acid
- Smooth build up and longer retention of flavor
- Extends the shelf life of your products
- Better solubility and impars greater clarity

HARKE Coatings, Plastics & Polymers
Your Partner for Fruit Acids

MALIC ACID

HARKE
Coatings &
Polymers

Malic Acid

Malic Acid is a **major natural organic acid** occuring in fruits and berries. In fact, contrary to the common belief, Malic Acid is the prominent constituent of many fruits. As a **naturally occuring substance** in our environment Malic Acid also participates in the vital function of carbohydrate metabolism in animals and humans. It is produced and broken in the human body every day.

Economy Improvement

Malic Acid ensures **more sourness than Citric Acid.** So less acidulant is needed and the total weight is reduced.

The Flavour Enhancer – Blending Ability

Malic Acid **blends extremely well** with an extensive range of essences and flavors allowing less flavor to be used. Also, it has a **smooth build up and longer retention of flavor,** which makes Malic Acid highly useful in soft drink formulations and dietary products and gives a balanced taste.

The Shelf Life Extender

Malic Acid is naturally anhydrous and non-hygroscopic, which **extends its storage life and the shelf life** of products it is blended with. This is of specific advantage in powdered soft drink concentrates and dry beverages.

The Lower Melting Point Advantage

Malic Acid has a melting point of 129 °C. This is important for the manufacture of hard candies, where the acidulant is incorporated in powder form in the cooked syrup on the slab. Malic Acid's **lower melting point makes it to easily disperse** in the syrup melt and consequently minimum folding and kneading are required.

Malic Acid – For Better Solubility

Water used in many processes often contains small amounts of hard water salts. Easy and better solubility of Malic Acid and its calcium salt prevents 'cloudiness' of the end product and imparts **greater clarity,** when Malic Acid is used as the acidulant (in place of Citric Acid).

Product Information

Malic Acid is a white crystal fine granulate without or only little odor. It is free flowing, stable and non-hygroscopic.

Synonym	Hydroxy Succinic Acid Common Malic Acid
CAS-No.	617-48-1 DL-Malic Acid
EINECS-No.	210-514-9
Chemical Formula	$C_4H_6O_5$

Specification

Assay on Dry Basis	99.5% min. Titrimetry
Fumaric Acid	1.0% max.
Maleic Acid	0.05% max.
Residue on Ignition	0.1% max.
Moisture Content	0.4% max.
Color – 10% Solution	APHA 10 max.
Heavy Metals (as Pb)	20ppm max.
Lead (as Pb)	2ppm max.
Water insolubles	0.1% max.

Grades of Granularity

Granular
Fine Granular
Powder

Packaging

25kg	HDPE-Bags with PE-Inner Bag
1,000kg	Big Bags

HARKE Chemicals GmbH
Business Unit Coatings & Polymers
Xantener Straße 1
45479 Mülheim an der Ruhr
Germany

+49 208 3069 0
cpp@harke.com
www.harke.com/cpp

HARKE GROUP