



DETAILED APPLICATIONS

Carbonated Beverages

Adding Malic Acid improves artificially sweetened products. Flavors are enhanced, allowing the use of less additives, and the overall flavor profile is broader, smoother and more natural.

Non-carbonated Beverages

Malic Acid is a preferred acidulant for still beverages (fruit drinks, nectars, iced-teas, sports drinks, calcium fortified juices), because it enhances fruit flavors, improves pH stability, and masks the aftertaste of artificial sweeteners and some salts.

Ciders and Wines

For alcoholic apple ciders, Malic Acid is added to maintain a consistent “sharp” taste.

Confectionaries

Malic Acid gives an appealing tartness to hard, soft, tableted, and sugarless candies as well as chewing gum. Blending multiple acids creates unique tasting confections. Malic Acid’s high solubility allows it to be blended with cooled confections. Adding acids at the end of the candy making process minimizes sugar inversion.

Hard Candy

Malic Acid boosts sourness intensity and enhances fruit flavors. It has a lower melting point than other food acids this means that it can be incorporated into molten hard candy without added water. The shelf life is increased as the initial moisture level in the hard candy is lower.

Soft Candy

In agar, gelatin or pectin-based candies such as jellies and gummies, Malic Acid is used to achieve a natural fruit flavor profile, uniform & controlled gelling, and good product clarity.

Powdered Mixes

In iced tea, sports drink, or fruit soup dry mixes, Malic Acid is preferred due to its rapid dissolution rate and flavor enhancement qualities. Since Malic Acid provides more sourness than Citric Acid, less acidulant is required and unit weight can be reduced.

Calcium Supplements and Calcium-fortified Beverages

In liquid calcium supplements, Malic Acid adds a tart and fruity flavor while controlling the pH and improving the solubility and bio-availability.

Low Calorie Beverages

Malic Acid's extended sourness masks sweetener aftertaste and its blending and fixative abilities give a balanced taste profile.

Acidified Dairy Products

Whey-based protein beverages acidified with Malic Acid have enhanced fruit flavor with less noticeable whey flavor. Fruit flavored milk drinks made with fruit juice and acidified with Malic Acid have improved flavor and palatability.

Fruit Preparations and Preserves

Malic Acid enhances fruit flavors and creates a more natural flavor profile in jams, jellies, and fruit preparations. Fruit preparations are acidified with Malic Acid so that the fruit flavor stays strong, even when the fruit preparation is used in dairy products, frozen desserts or baked goods.

Desserts

Malic Acid is an economical fruit flavor enhancer in sherbets and water ices. In gelled desserts, Malic Acid enhances fruit flavors and helps stabilize pH to control gel texture.

Bakery Products

Bakery products with fruit fillings (cookies, snack bars, pies, and cakes) have a stronger and more naturally balanced fruit flavor when the fruit filling includes Malic Acid.

Medical and Personal Care Products

In throat lozenges, cough syrups, and effervescent powdered preparations, Malic Acid enhances fruit flavor and can diminish the flavor impact of active components. As Malic Acid stimulates saliva flow, it can be used in tooth-cleaning preparations and mouthwashes.

Germicidal compounds are used in combination with Malic Acid in soaps, mouthwashes, and toothpaste.

Acid-Based Facial Products

Malic Acid can be used in skin care products to rejuvenate and improve skin conditions.

Oil Field Applications

Demands for Malic Acid in the oil industry are rapidly increasing. The product is used to aid in the transfer of raw crude from the well to the refinery.

Gypsum Cement Retarders

Malic Acid is used in Gypsum cement to control the rate of setting of the cement by retardation.

Acrylic Fibre Production

Acrylic fibre whiteness is enhanced by the addition of Malic Acid during the manufacturing process and also helps in the control of polymerization reaction and prevents oxidation.

Electroplating Chemicals

Malic Acid is an important constituent in plating chemicals to maintain pH, improve and control the rate of deposition of active metals like nickel.