



BARTEK

Malic Acid Flavour Improvement Kit

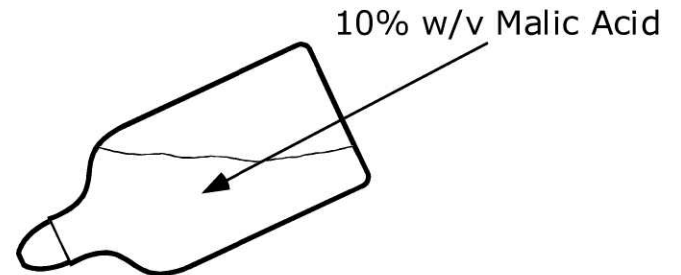
Bartek Malic Acid improves flavour in many products by enhancing and blending flavour notes. It does this at very low levels - less than 100 ppm.

The enclosed dropper bottle dispenses a 10% w/v Bartek Malic Acid solution in drops of 0.035 ml, or 3.5 mg of Malic Acid per drop. As shown at right, one drop in 200 ml equals 17.5 ppm of Malic Acid. Product developers use this bottle to rapidly prepare samples with different levels of Malic Acid in order to gauge its effect on flavour.

Malic Acid has been shown to improve flavour in the following types of beverages:

- Carbonated soft drinks
- Coffee beverages
- Enhanced waters
- Energy drinks
- Malt beverages
- Sports drinks
- Still fruit drinks
- Tea beverages

Initial taste trials should include the evaluation of samples containing between 15 and 70 ppm of Malic Acid. In coffee beverages, for example, 15 ppm of Malic Acid is enough to suppress bitterness and impart smoothness. Fruit flavoured beverages would normally include at least 50 ppm of Malic Acid to enhance fruit flavours.



- 1 drop in 200 ml. = 17.5 ppm.
- 3 drops in 200 ml. = 52.5 ppm.

Malic Acid's flavour improving effect is thought to be the result of hydrophobic association between flavour compounds and Malic Acid molecules. This association retards the release of the flavour compounds from the saliva. As a result, the olfactory receptor cells in the nasal cavity are stimulated by these flavour compounds for a longer time and in a less orderly sequence. The brain interprets this experience as stronger, smoother, and more blended flavour.

Bartek conducts technical training seminars on the selection and use of acidulants for food and beverage manufacturers. The *Self Teaching Guide for Food Acidulants* is available at www.bartek.ca or in CD-ROM format by contacting sales@bartek.ca.