Technical Data Sheet

Beverage Stabilization
Ascorbic Acid (E 300)

Stabilizer

Ascorbic Acid stabilizer is a very pure vitamin C product, specially selected for application in wine, champagne, and fruit juice. It protects the bottled beverage against chemical oxidations.

The specific advantages of Ascorbic Acid stabilizer:

- Rapid reaction with oxygen, which prevents chemical oxidation
- Stabilization of the beverage bouquet and taste
- Positive influence on the taste, above all beverages low in acid
- High chemical purity

Application

In the filled bottle, Ascorbic Acid stabilizer serves to protect the beverage from chemical oxidations. Through its use in wine and champagne, however, it is not possible wholly to dispense with SO_2, because the sulphurous acid demonstrates other characteristics (e.g. protection against enzymatic reactions, protection against secondary fermentations, combination with free acetaldehyde content), which cannot be taken over by Ascorbic Acid.

Ascorbic Acid stabilizer is very sensitive to heavy metals, such as iron and copper.

For this reason, Ascorbic Acid stabilizer should only be added to the beverage ready for bottling. With wine and champagne, it is important to control the free SO_2 content before addition, which should be around 0.21 lb/1,000 gal (25 mg/l). Only when the wine or champagne shows a stable SO_2 content, an optimal protection against oxidation can be guaranteed by Ascorbic Acid.

The problem of hints of a typical ageing
The addition of Ascorbic Acid stabilizer at the young wine stage can delay the formation of AAP (2-aminoaceto-phenone), which is responsible for the occurrence of hints of atypical ageing. For successful implementation, the following basic rules should be followed.

Early addition (if required) of approximately 0.67 lb/1,000 gal (80 mg/l) of Ascorbic Acid at the young wine stage after the first racking:

- Cool storage
- Containers should be kept filled up to the stopper
- Regular SO_2 checks

Prior to filling, a further dose of 0.33 lb/1,000 gal (40 mg/l) should be added.

The maximum permitted quantity in wine or champagne in Germany is 2,09 lb/1,000 gal (250 mg/l) since Aug 7, 2003. In other countries, the relevant national legislation is to be observed. No general recommendation for the addition of Ascorbic Acid stabilizer to wine can be given.

In the fruit juice sector, the relevant legislation of the country in which the application takes place must be observed. With fruit juice also, the addition of Ascorbic Acid stabilizer should take place shortly before filling.

Ascorbic Acid stabilizer is dissolved free of lumps in 10 – 20 times the volume of beverage and slowly added to the entire beverage by intensive mixing. After addition, continue mixing for some minutes to ensure even distribution.

Product Characteristics

Ascorbic Acid stabilizer is a very high quality and pure product, contained in many fruits as naturally-occurring vitamin C. Due to its very strong reducing characteristics, Ascorbic Acid stabilizer is excellently suited as protection against chemical oxidations in beverages. Ascorbic Acid stabilizer is sensitive to air and light.

Safety

When used correctly, Ascorbic Acid stabilizer demonstrates no detrimental effects.

Further safety information can be found in the relevant Material Safety Data Sheet, which can be downloaded from our website.

For more information:
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Storage

Ascorbic Acid stabilizer is supplied in air- and lightproof aluminum-multilayer film. Open packages should immediately be tightly reclosed, stored cool, dry and protected from light, and quickly used up. Closed packages will last at least two years.

Delivery Information

Ascorbic Acid stabilizer is sold under article no. 64.202 and is available in the following package sizes:

2.2 lb (1 kg)	aluminum-multilayer film
25 x 2.2 lb (1 kg)	in cardboard box

Ascorbic Acid stabilizer is sold under article no. HW.003 and is available in the following package size:

55.1 lb (25 kg)	plastic foil in carton

Certified Quality

Ascorbic Acid stabilizer is monitored regularly during the production process to ensure consistently high quality. These inspections cover technical function criteria as well as compliance with the law governing the production and sale of foodstuffs. Strict controls are also carried out immediately before and during final packing.