

Beverage Stabilization SIHA[®] Activated Carbon UF

SIHA Activated Carbon UF fining agent is an activated carbon of plant origin that was specially developed for the correction of color defects in beverages. It is used in ultrafiltration (UF) systems. SIHA Activated Carbon UF fining agent has an ideal grain size distribution for protecting the membranes, pumps and piping of the UF system. It has very high adsorption capability for colorants and polyphenols and therefore offers high performance at low dosage.

The specific advantages of SIHA Activated Carbon UF fining agent:

- Adsorption of undesirable colorants in beverages with high coloring or beverages that have become brown
- Adsorption of undesirable tannins
- Large internal surface area with resulting high adsorption capability
- Stabilization of fruit juice through adsorption of polyphenols

Application

It is advisable to determine the quantity of SIHA Activated Carbon UF fining agent required in a preliminary test. Pre-mix this quantity then with a small quantity of beverage in order to achieve full wetting of the powder. Then add the whole container while stirring. Stir for 15 – 20 minutes, depending on the effectiveness of the stirrer. The activated carbon is subsequently separated through ultrafiltration.

Dosages

- Color correction in juices with high coloring or juices that have become brown
0.83 – 1.67 lb/1,000 gal (10 – 20 g/hl).
- For the treatment of sugar solutions (approx. 60 °Brix) a dosage of 0.25 – 0.75% by volume is required.
- For stabilization and decolorization of fruit juices
2.09 – 6.26 lb/1,000 gal (25 – 75 g/hl).

The required quantity can be determined in preliminary tests with 3.38 fl oz (100 ml) of beverage. Use a 5% suspension of SIHA Activated Carbon UF fining agent for this purpose. Increasing quantities of the suspension are then pipetted into 3.38 fl oz (100 ml) of beverage.

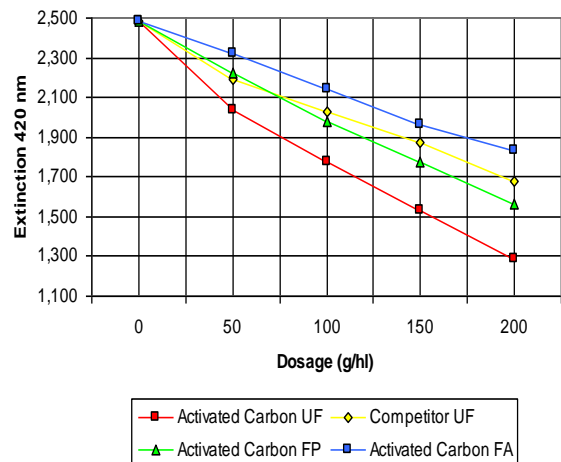
0.007 fl oz (0.2 ml) of the 5% suspension in 3.38 fl oz (100 ml) of beverage corresponds to a required dose of 0.83 lb/1,000 gal (10 g/hl).

The preliminary tests are carried out according to the following scheme.

SIHA Activated Carbon UF suspension fl oz/gal (ml/100 ml)	Corresponding quantity to be added to the beverage lb/1,000 gal (g/hl)
0.51 (0.4)	1.67 (20)
1.02 (0.8)	3.34 (40)
1.54 (1.2)	5.01 (60)
2.05 (1.6)	6.68 (80)
2.56 (2.0)	8.35 (100)

Stir the fining mixtures intensely and subsequently filter via an adequately pre-wetted fluted filter. Discard the first 0.34 fl oz (10 ml) of the filtrate. Thereafter compare the filtrate with the reference sample. The precise quantity of SIHA Activated Carbon UF fining agent is determined through this color comparison.

Decolorization of Apple Juice 24 °Brix, 68 °F (20 °C)



Safety

When used and handled correctly, there are no known unfavorable effects associated with SIHA Activated Carbon UF fining agent.

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

Storage

SIHA Activated Carbon UF fining agent is suitable for storage. Due to the high adsorption capability of the carbon it must be stored in a dry, cool, well-ventilated, and odor-neutral place. After opening, the pack should be sealed properly and used up as quickly as possible.

Delivery Information

SIHA Activated Carbon UF fining agent is sold under article no. 63.109 and is available in the following package size:

44.09 lb (20 kg) paper bag

Certified Quality

During the production process, SIHA Activated Carbon UF fining agent is regularly monitored to ensure consistently high product quality. These tests cover technical function criteria as well as conformance with the relevant laws governing the production and sale of foodstuffs. Strict controls are carried out immediately before and during final packaging.

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