A multiple tool for beer brewing

CC food®

Keep fresh, keep healthy.

CC food® is a high quality Calcium Chloride product that provides several advantages during the beer making process

It is used worldwide in the brewing industry and is recognized as important both by large-scale multinational brewers as well as local and smaller brewers. There are multiple reasons for using CC food® which are highlighted below. Notably from a taste perspective the salty CC food® enhances the beer's flavor and provides palate fullness. Furthermore, thanks to the high solubility and availability of the calcium ions in CC food® the following advantages can be achieved:

Improvement of the water quality

The Ca^{2+} ions help to adjust the mineral content of the water in order to achieve the desired quality. When the water has been totally de-mineralized or when it is naturally soft (low mineral content) the Ca^{2+} ions provided by CC food® will help increase the mineral content to the required process level.

Acidifying effect on the wort

The wort generally contains large amounts of phosphates derived from the malt. Phosphates have a buffering effect: they take up hydrogen ions and keep the pH higher than desired. Calcium ions precipitate phosphates as insoluble calcium phosphates, releasing hydrogen into the wort. This release results in a lower wort pH.

Removal of Oxalate

Oxalic acid is not wanted in beer because it may cause gushing. CC food® helps precipitate oxalic acid as calcium oxalate that can then be removed by filtration.

Precipitation of proteins

A high protein level generally makes the beer hazy and for some categories of beers a good transparency is very important. Furthermore a high level of proteins may decrease the shelf-life of the product, which decreases its commercial value. Lowering the pH as described above will improve the precipitation of proteins. As a second effect the presence of Ca^{2+} ions tends to improve the aggregation of the proteins in suspension. They become easier to separate from the wort by filtration as they form larger aggregates.

Improves enzyme activity and optimizes fermentation

The activity of the amylase enzyme is enhanced by the Ca^{2+} ions, making the wort more fermentable and consequently shortens the total processing time.

Yeast flocculation

Ca^{2+} ions flocculate yeast cells, improving its settling and separation from the liquid at the end of the aging process.

Dosage & Guidelines

An optimal pH for beer brewing if often achieved at 5.1 to 5.3. Calcium usual range: 50–200 ppm corresponding to 0.3 to 1.2 liter of CC food® 36% or 180 to 720 g of CC food® 77% per 1000 l wort.

Choosing CC food® from TETRA Chemicals

TETRA Chemicals is specialized in the manufacture of Calcium Chloride. Our Calcium Chloride grade CC food® is designed to answer the high demands from the various food industries and from the brewing industry in particular. CC food® guarantees a high and consistent quality which is carefully and regularly controlled. It fulfills all the major food standards like FCC and FAO, and is Kosher certified. Our focus on quality combined with more than 50 years' experience makes us a reliable supplier who can deliver directly to major brewers in Europe as well as to distributors to the brewing industry. The ability to deliver from four different plants in Europe makes TETRA Chemicals a safe choice when full reliability in logistics and product delivery is required. Being a world leader in Calcium Chloride we also have well established logistics solutions on a global level. CC food® is available as a liquid at 34% or 36% (450 g/liter resp. 485 g/liter) in bulk or IBCs as well as flakes at 77% in 25 kg and 1000 kg Big-Bags.

Read more on www.tetrachemicals.com and www.ccfood.eu

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