

# NovaSOL® Q

Unique Nano Liquid Water & Fat-Soluble CoQ10



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NovaSOL® Q fully utilizes the benefits of AQUANOVA's advanced nanotechnology. For the first time, Coenzyme Q10 is available as a crystal clear liquid with unparalleled product features. Unlike other formulations, NovaSOL® Q offers 100% water and 100% fat solubility at the same time. Our nano sized carriers ("product micelle") for Coenzyme Q10 have a diameter below 30 nanometers (a millionth of a millimeter) and therefore are even smaller than the wavelength of light. This makes it possible for NovaSOL® Q to generate crystal clear solutions, which prove to have a significantly higher bioavailability than other formulations on the market today. Thus NovaSOL® Q goes far beyond the scope of standard powders or other standard formulations with lipophilic Coenzyme Q10. NovaSOL® Q can be used in a broad variety of applications and products such as beverages or dietary supplements, especially soft gel capsules. Furthermore the formulation is proven to be absolutely stable, industry safe and ready to use for production. Thus AQUANOVA opens up a new space for your creation of innovative products in the food, health, cosmetics and pharmaceutical sectors.



### Applications

NovaSOL® Q is available for a variety of applications:

- Dietary supplements
- Functional food
- Innovative beverages
- Crystal clear fitness & energy drinks
- Cosmetic creams
- Pharmaceutical products

### Coenzyme Q10 (ubiquinone)

An ubiquitous nutrient

- Natural, lipophilic compound
- Located in cell mitochondria
- Essential cofactor in the generation of energy (ATP)
- Strong physiological antioxidant for cosmetics
- Physiological synthesis starts to slow down beyond the age of 20 and drops dramatically beyond the age of 40
- Supposed benefits for heart health and immune system
- Supposed "anti aging" effect for the skin

### Scientific basis

NovaSOL® Q has proven to be a superior dietary supplement.

- Controlled blinded and randomized study
- Up to 4 times faster and higher resorption
- Challenging comparison to leading market products and straight CoQ10
- Strictly conducted along state of the art standards
- Basis: 60 participants
- Conducted in 2005

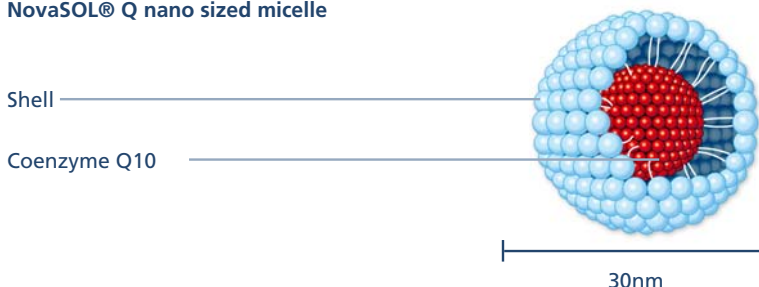
## Unique Nano Liquid Water & Fat-Soluble CoQ10

NovaSOL® Q stands for novel water- & fat soluble and highly bioavailable CoQ10 grades manufactured through AQUANOVA's advanced nano-technology.

**NovaSOL® Q 5% capsule grade:** The dietary supplement grade. Especially designed for soft gel capsules but also well suited for hard gels. Its superior bioavailability has been proven in comparative human studies. The higher efficacy allows to take less CoQ10 for the same physiological effect. The high bioavailability is due to the water solubility, which, in turn, is achieved by the nano-sized micelles, which function as a carrier for CoQ10. These micelles have a diameter of less than 30 nanometers and don't need any further biological micellization to pass the wall of the small intestine. NovaSOL® Q 5% can be encapsulated without any auxiliary or further processing step and has a very high stability. For our customer's convenience, beside the NovaSOL® Q 5% bulk solution, AQUANOVA offers the final dosage form, i.e. soft or hard gels as well. It is also recommended for the use in cosmetic creams.

**NovaSOL® Q 22% and 3% grade:** The basic (22%) and the beverage (3%) grade belong together. The 3% grade is made by diluting the basic grade with water prior to application. The nano-sized carrier micelles are smaller than the wavelength of light, and, hence, yield crystal clear solutions. This means, for the first time CoQ10 can be added to crystal clear beverages, which opens up the whole segment of the highly attractive sports, energy and fitness-drinks. The high bioavailability guarantees an optimal absorption from those drinks. This could be shown in a human study.

### NovaSOL® Q nano sized micelle



AQUANOVA's Nano-Technology offers the dietary supplement, functional foods and drinks, as well as the cosmetics industries, great opportunities to supply new value added CoQ10 products with properties hitherto not possible.

### Presentation

- Yellow-orange liquid (solubilisate)
- Bulk solubilisate with three grades
  - 3% beverage grade (in Germany only)
  - 5% capsule grade
  - 22% basic grade
- NovaSOL® Q 5% in final dosage form, i.e. 15 or 30 mg soft or hard gel capsules

### NovaSOL® Q

Unique features of our high tech formula are:

- Superior bioavailability
- Liquid & crystal clear
- Readily water soluble
- Readily fat soluble
- State of the art nanotech/nano sized product micelles
- GRAS status ("generally recognized as safe")
- Highest Japanese origin raw material quality
- GRAS status approved
- Kosher
- Halal upon request
- Animal free, GMO free



### Documentation & Samples

On request we will supply you with:

- Product data sheet
- Certificate of analysis
- Material safety data sheet (MSDS)
- Summary bioavailability study
- Product samples



AQUANOVA is a leading supplier of innovative solubilisates for raw materials and active substances. Completely in accordance with the era of nanotechnology, AQUANOVA develops and produces nano structured substances (product brand "NovaSOL®") utilizing its proprietary technology and in close cooperation with renowned scientists. The basis are nano particles (so called "product micelles"), which are thermally, mechanically and pH stable, even in gastric acid. These particles exhibit an average diameter of only approx. 30 nm. By means of the product micelle and the AQUANOVA solubilisates, the development of innovative and pioneering end products in the fields of nutraceuticals, cosmetics, and pharmaceuticals is extremely simplified technically / galenically (due to dispensing with matrix design). The absorption of the active substance in the solubilisate (product micelles) and the bioavailability is significantly increased and optimized. In addition the solubilisates generate unique technical features and benefits such as superior antioxidative capacity for essential oils. The company's headquarter is located in Darmstadt (near Frankfurt), Germany.

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