

# NovaSOL® ISO

## Unique Liquid Isoflavone Solution



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Isoflavones are well known for their positive health effects. Various studies suggest soy Isoflavone supplementation may have beneficial effects for breast and prostate cancer patients. In addition supplementation with Isoflavones is associated with positive effects on the prevention of women's skin aging processes in conjunction with menopause.

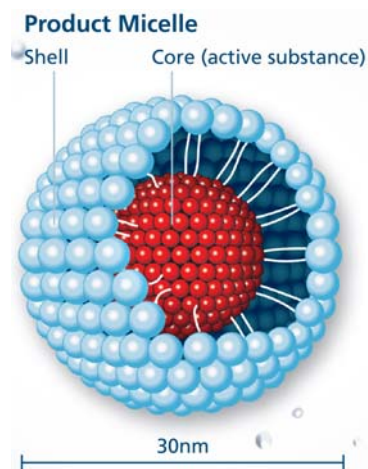
However the challenge for Isoflavone products is to allow an efficient absorption of the active substance. AQUANOVA's Isoflavone formula NovaSOL® ISO is protected by a European patent. With this product AQUANOVA offers a worldwide unique fat- and water soluble form ("ambiphilic") of Isoflavone for use in various industries and applications. The underlying proprietary technology relies on nanoparticles of the Isoflavones ("product micelles"), which leaves the natural substance chemically unchanged, but now make the Isoflavones available for new applications such as fortified clear beverages.



### Applications

NovaSOL® ISO is recommended for the following applications:

- Dietary supplements
- Functional Food
- Beverages



### Advantages

Utilize the unique NovaSOL® ISO characteristics for your products:

- Superior bioavailability
- Liquid and clear solution
- Both water & fat soluble ("ambiphilic")
- Ready-to-use
- Chemically unmodified substances
- Mechanically, thermally, pH stable
- Processing without additives
- Sound research & analysis basis
- Patent protected formula

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A crucial physiological advantage of the new formula consists of its superior bioavailability for the consumer. Unlike traditional Isoflavone formulas the patented NovaSOL® ISO formula allows the substance to be absorbed much better and faster. This effect is enforced and explained in detail by research of Technical University of Munich. As their scientific research shows, shortcomings of traditional formulas can be overcome by the solubilization into nanoparticles ("product micelle") via the AQUANOVA technology. As the experts explain, the NovaSOL® ISO nanoparticles containing the phytoestrogens (typical substances are isoflavones such as Daidzein and Genistein) have a much higher aqueous distribution and thus increase access to membranes responsible for uptake. This yields in much higher bioavailability which partially equalizes the lower biological activities.



Phytoestrogens are plant substances with hormone-like activity in humans. The activity of these compounds in comparison to the intrinsic female sexual hormones is several hundred times lower. This is due to structural incompatibilities according to the key-lock system as compared to structures of the natural hormones. In addition to these structural shortcomings the low bioavailability of the plant derived substances is a problem, for which now the "NovaSOL ISO" offers a crystal clear and liquid solution. This product however is only one example of AQUANOVA's broad range of solutions. Also in the challenging field of phytoextracts solubilization AQUANOVA is a reliable partner and innovator.

### Presentation

NovaSOL® ISO is offered in a variety of forms such as:

- Yellow-orange liquid (solubilisate)
- Bulk soft or hard gels
- Full service soft or hard gels



### Documentation & Samples

On request we will supply you with:

- Product data sheet
- Material safety data sheet (MSDS)
- Study reports
- Samples solubilisate

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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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