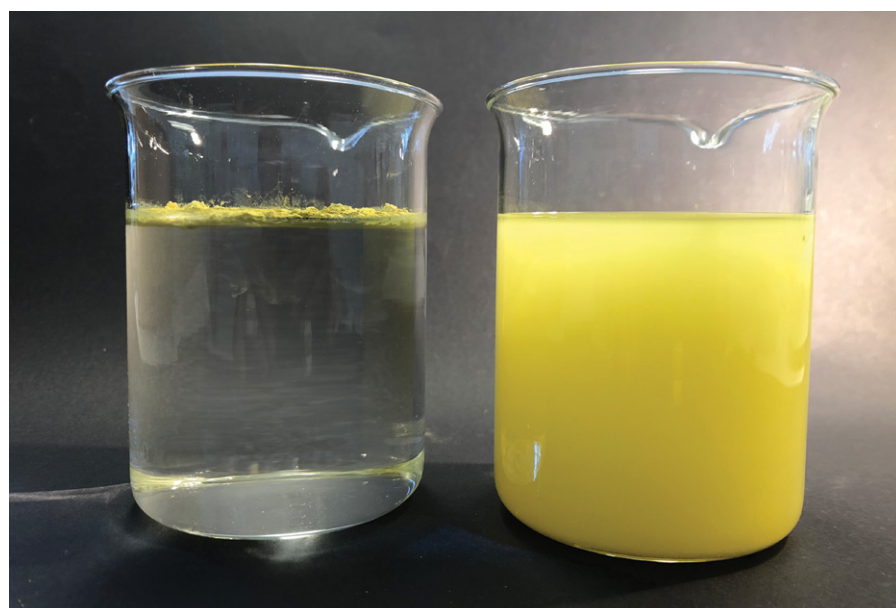


## Quercetin CWD 90 advanced flavonoid delivery.

Quercetin CWD 90 is a cold water dispersible (CWD) quercetin powder, specifically designed to increase its bioavailability. Utilising exclusive, patented LipiSperser® technology means that quercetin's normally limited ability to dissolve in aqueous environments (such as the stomach), is enhanced and can disperse freely. This increases Quercetin CWD 90's bioavailability and therefore efficacy as it becomes more readily available.

### Patented LipiSperser advantage.

LipiSperser® is an award-winning technology developed by Pharmako Biotechnologies. LipiSperser® works by creating repulsive forces between the particles to prevent agglomeration or aggregation: allowing the quercetin to have proper particle dispersion. Proper dispersion increases surface area which offers advantages in absorption, dosage requirements, efficacy and final product quality.



**Typical quercetin powder = poor dispersion:**  
The small effective specific surface area of typical quercetin powders or crystals result in reduced bioavailability and functionality. You can see the individual particles and "clumps" or "fish-eyes" stuck together by various forces. These particles may appear as aggregates (an assemblage of particles rigidly joined together), or as agglomerates (assemblage of particles which are loosely coherent).

**LipiSperser® Quercetin CWD enhanced powder = optimum dispersion:**  
With LipiSperser® Quercetin CWD 90 optimised dispersion the effective specific surface area is increased thereby enhancing absorption and functionality.



### Quercetin CWD 90's advantage over standard quercetin:

- water dispersibility.
- improved functionality.
- enhanced bioavailability.

### LipiSperser® can be customised:

- for customer requirements.
- for regulatory frameworks.
- for dosage format(s).

### The LipiSperser® technology platform is:

- patented
- supported by human pharmacokinetic studies
- award winning

### Quercetin CWD 90 can be used in multiple product sectors and applications including:

- nutraceutical,
- cosmetic,
- pharmaceutical,
- veterinary,
- antibacterial,
- dietary supplements,
- food and beverage.

### Quercetin's health benefits:

- antioxidant
- heart health
- natural antihistamine
- immune function
- blood pressure regulation
- anti-viral

### Quercetin's sports benefits

- anti-inflammatory
- endurance capacity
- exercise recovery
- improve athletic performance
- reduce oxidative stress

### Quercetin botanical source:

*Sophora japonica L.*

### Exclusive use.

LipiSperser® is a patented technology and a registered trade mark owned exclusively by Pharmako Biotechnologies Pty Ltd.

## Releasing the power of quercetin.

Quercetin, categorized as a flavonol, is one of the best known flavonoids. Flavonoids are a superfamily of phytochemicals, that are regarded as the most potent naturally occurring antioxidants.

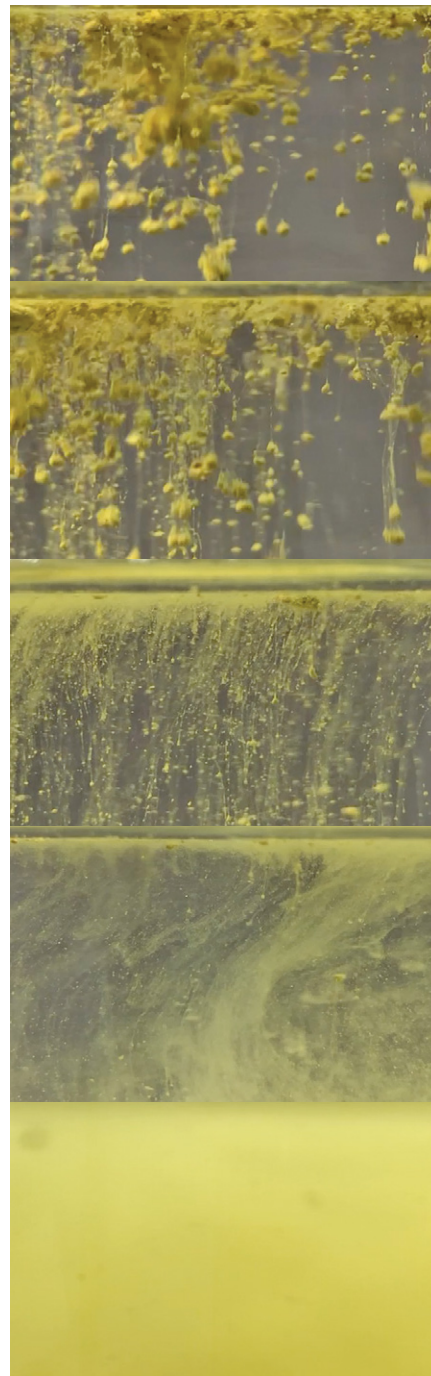
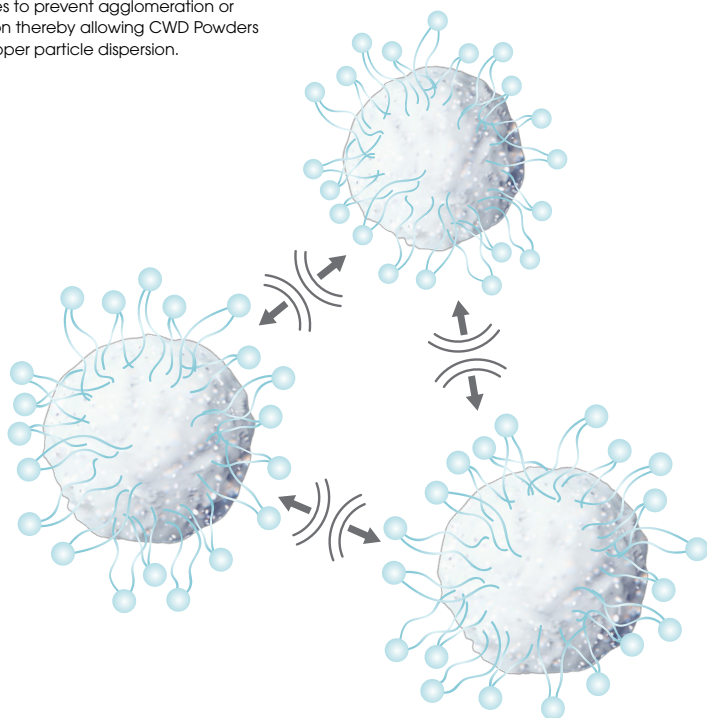
Quercetin is most significantly found in apples, onions, citrus, kale, blueberries, sweet potatoes, green tea and red wine.

Flavonoids are phenolic compounds found in plants which are important for human health because of their high pharmacological activities. They are essential constituents of the cells of plants. Plants have evolved to produce flavonoids to protect themselves against fungal parasites, herbivores, pathogens and ultraviolet (UV) radiation.

Flavonoids are important for human health because of their antioxidant, antibacterial, antiviral, and anti-inflammatory activities. They act as free radical scavengers as they are potential reducing agents that protect cells from oxidative damage.

**Quercetin CWD 90 increases quercetin's normally limited bioavailability through improved dispersion technology, exponentially increasing this super antioxidant's power.**

**LipiSpurse® Quercetin CWD 90 technology** works by creating repulsive forces between the particles to prevent agglomeration or aggregation thereby allowing CWD Powders to have proper particle dispersion.



**LipiSpurse® Quercetin CWD 90 in action:**  
Time lapse photography over 60 seconds of Quercetin CWD 90 in water.

Please note this product description sheet is applicable for customers in countries all over the world and hence it may contain statements or product classification not applicable to your country. The claims made are in reference to ingredients only, and do not refer to finished products. The claims may not comply with different regulations. The marketer of any finished product containing any ingredient is responsible for assuring that the destination of the product and the claims made for the finished product are lawful and comply with all applicable laws and regulations of the country or countries in which the product is to be sold.

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