

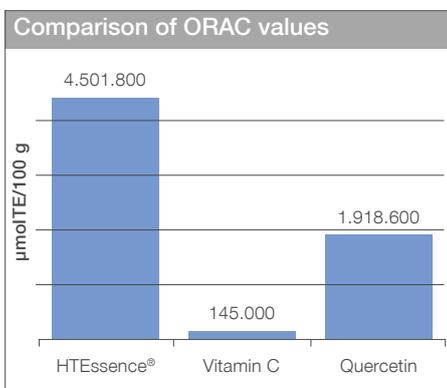
# DIVE INTO A NEW DIMENSION OF PURITY

Discover HTEssence<sup>®</sup>, the new WACKER hydroxytyrosol and its broad-ranged health benefits

## WHAT IS HYDROXYTYROSOL AND WHAT IS ITS ROLE IN THE HUMAN BODY?

Hydroxytyrosol is the active ingredient found in olives, and functions as a highly active antioxidant in the body.

Antioxidants are bioactive molecules that are present in many plants, but they do not all exhibit the same activity. Hydroxytyrosol is considered one of the most powerful antioxidants and market demand for it is soaring. It has an oxygen radical absorbance capacity (ORAC) of about 4.500.000  $\mu\text{molTE}/100\text{g}$ ; ten times that of green tea, and more than two times that of CoQ10 and quercetin.



## IT'S NEW AND IT'S PURE: HTEssence<sup>®</sup>

Our new product is a nature-identical hydroxytyrosol with a high safety profile. Because it has a defined specification, you can always be sure that it will contain the stated amount of active ingredient. It is a highly active antioxidant which offers significant health benefits, which is why market demand has increased recently.



HTEssence<sup>®</sup> / 20% hydroxytyrosol spray dried on maltodextrin; Appearance: fine powder; Color: white; Odor: odorless



Natural olive extract / 20% hydroxytyrosol; Appearance: fine powder; Color: brownish; Odor: moldy



## BENEFITS OF HTEssence®

### High Quality

WACKER complies with HACCP regulations and has implemented strict internal quality controls to permanently safeguard the product safety of WACKER hydroxytyrosol.

### Supply Security

Thanks to WACKER's production process, there is no dependence on raw material supply therefore there will be no fluctuation in quality.

Specification	%	Analysis	Method
Hydroxytyrosol incl. its monoethers and esters *	min 98.0 %	LC	QFBL539
Monoethers: 2-(3-hydroxy-4-methoxyphenyl)-ethanol +2-(4-hydroxy-3-methoxyphenyl)-ethanol	max 3.0 % in total	LC	QFBL539
Residual solvents	max 0.1 %	GC GC/MS-SIM	QFBG622 QFBG624

\* The same monoethers are also found in natural olives in addition to hydroxytyrosol

### Defined Content

There are no undefined byproducts that could interfere with your formulation.

### Color & Odor

Pure, white, odorless product that can be used in many different formulations.

### Attractive Cost-Benefit Ratio

The new process enables WACKER to offer the best cost-benefit ratio on the market.

### Universal Solubility

As hydroxytyrosol is an amphiphilic substance, it can be used in oil- and water-based formulations as well as in dry applications. This makes it ideal for dietary supplements, functional foods and beverages.

### Wacker Hydroxytyrosol Product Forms

- Spray-dried powder with 20 % hydroxytyrosol content, available in 5 kg & 20 kg packaging.
- Highly pure liquid with 98 % hydroxytyrosol content, available in 5 kg and 20 kg packaging.

### Cardiovascular health

Hydroxytyrosol has been shown to protect blood lipids, especially low density lipoprotein (LDL), from oxidative damage (1). That is why it can be beneficial to cardiovascular health. This functionality claim for hydroxytyrosol as the active ingredient in olive oil has been approved by the EFSA. A decrease in oxidation of LDL is often linked to a lowering of the risk of coronary heart disease and stroke (2). Hydroxytyrosol has been shown to have good bioavailability – the product is absorbed in the human body and, depending on the dose taken, is found in the blood stream. Scientific studies reveal that hydroxytyrosol even passes the blood brain barrier in relatively large amounts, thus accessing the cells in the central nervous system.

### Broad variety of health effects for various applications

There is growing interest in the various health benefits of olive oil polyphenols, especially hydroxytyrosol. It has been studied extensively in recent years and, aside from benefiting cardiovascular health, it has been linked to many other health benefits on the eyes, immune system, bones and colon. WACKER's new nature-identical hydroxytyrosol now enables the use of hydroxytyrosol in a broad range of products in dietary supplements, functional foods, and cosmetics.

Due to its defined content, formulators can be sure that formulations containing WACKER hydroxytyrosol are free of allergens and pesticides, which are a growing concern for many consumers.

(1) Olga Castañer et al., Protection of LDL from oxidation by olive oil polyphenols is associated with a downregulation of CD40-ligand expression and its downstream products in vivo in humans. *Am J Clin Nutr* 2012; 95: 1238–44

(2) Maria-Isabel Covas et al., The effect of polyphenols in olive oil on heart disease risk factors. *Ann Intern Med* 2006; 145: 333–341

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