

ROSEMARY EXTRACT

USING NATURAL PRESERVATIVES TO EXTEND THE SHELF LIFE OF YOUR PRODUCTS

What is Rosemary Extract? It is from rosemary (*Rosmarinus officinalis* L.), a common household plant that has grown in the Alps since the middleages, and is now found throughout the world. Rosemary has been used for thousands of years as a savory spice, food preservative, in cosmetics and hair products, and as an herbal medicine for a variety of health disorders. Until now however, the exact chemical pathways involved in its beneficial effects have remained unknown.

There are hundreds of research papers and studies on the extensive antioxidant capabilities of rosemary . Botanist Dr. James Duke from the U.S. Department of Agriculture established that, rosemary contains more than two dozen antioxidants , and it is the only compound in his database (CRC Handbook of Biologically Active Phytochemicals, 1992) to have immune regulating, anti-inflammatory, and antioxidant activities. Rosemary extract is now being used commercially as an antimicrobial food preservative.

An anti-oxidant is a preservative that reduces the rate of oxidation in oils and processed foods that oxidize quickly. Oxidation is a chemical process that occurs when oils or other natural ingredients are exposed to oxygen. Anti-oxidants extend the shelf life of your products by reducing the rate of oxidation of your oils. An antioxidant is used in any formulation, which contains fragile oils and natural ingredients such as savories, confectionary, sweets, beverages, seasonings, sauces, dressings etc. Antioxidants can be directly in oils and prepared foods or in the oil phase of the recipes to help keep them fresh. Lip balms, lotion bars, creams, lotions, scrubs and any other product containing oils can benefit from the addition of an antioxidant.

Antioxidants have been proven to deactivate free radicals, but not all antioxidants are equal. In most cases, once an antioxidant has neutralized a free radical it is no longer useful as an antioxidant because it becomes an inert compound. Even worse, it may become a free radical itself.

That's where rosemary extract is significantly different: it has a longer life span of antioxidant activity. Not only that, it contains more than two dozen antioxidants, including carnosic acid, one of the only antioxidants that deactivates free radicals through a multilevel cascade approach.

In vitro studies have shown that as carnosic acid attacks free radicals it is transformed into at least four other antioxidant compounds, each with the ability to neutralize additional free radicals. Most antioxidants do not have this same capacity.

When rosemary extract is combined with other antioxidants its potency increases for instance, vitamin E must be re-cycled after quenching a free radical before it can quench another. But when it is combined with rosemary extract, the carnosic acid, which starts the cascade effect, rejuvenates vitamin E back to its original state, so it can attack additional free radicals.

Rosemary Extracts are more effective than Vitamin E (synthetic), BHA, BHT etc., and are much more high temperature resistant.

In the USA, rosemary extracts have the GRAS status (FDA 21 CFR 182.10) declaring that they can be used in any concentration in any application. They are classified as natural flavors in the EU (EC 88/338). They go by the CLEAN label.

This product is a Full Spectrum deodorized extract standardized to 6% carnosic acid manufactured using the Super Critical Fluid CO2 extraction process. It is simply the best botanical preservative in the food / nutraceutical sector.