

Kakadu Plum (Vitamin C Blend) Research Paper

APPEARS INS



The Three Ships Dew Drops serum contains Vitamin C derived from the Kakadu plum. This plant is known to have 100 times more Vitamin C than oranges. The key roles that Vitamin C plays in the Dew Drops serum are working as a powerful antioxidant and helping to lighten dark spots over time. This plant-derived Vitamin C can be chemically unstable and will oxidize over time. It is formulated with stabilizing ingredients, such as Vitamin E, to prolong the stability and shelf life of Vitamin C.

DEW DROPS HAS ANTI-INFLAMMATORY AND ANTI-MICROBIAL PROPERTIES DUE TO THE PRESENCE OF BOTH VITAMIN C AND E

People get most of their Vitamin C from their diets, but only a small percentage of it makes its way to the skin. So even if your diet is rich in Vitamin C, or you were to increase the intake of Vitamin C to a certain amount, the body regulates the intake internally and the excess that your body does not need will pass through to your urine. The body can also overdose on Vitamin C as well if too much is being digested at once and this can lead to adverse effects.



The Vitamin C Three Ships uses is made from sustainably sourced Kakada plums that are hand-picked to go through a gentle water-based extraction process to preserve the quality of the antioxidant. This extraction method is proprietary knowledge, however, the plums are macerated into a pulp, concentrated, and then finally put through a fractionating phase for the Vitamin C.

This exact method of extraction is proprietary information to the manufacturer.

VITAMIN C CAN ALSO BOOST COLLAGEN PRODUCTION

Our bodies do not naturally produce antioxidants such as Vitamin C, and E so we must ingest and topically apply it to protect our skin from modern-day stressors. Vitamin C is a potent antioxidant that helps to block oxidative stress. Oxidative stress comes from things like the sun, pollution, and smoking, and these stressors create reactive oxidative species (ROS) which break down the skin's collagen and continuously create more ROSs in the making. Antioxidants like Vitamin C neutralize those ROSs and prevent them from breaking down the collagen in our skin, as well as simultaneously stop the chain reaction from producing more. It can also help decrease the amount of sun damage to the skin by minimizing the level of inflammation and redness caused by overexposure to the sun.

Vitamin C can also boost collagen production by signaling two enzymes that help collagen within our skin adhere to our skin cells better. These enzymes also influence the quality of collagen produced, which is important for healthy and youthful-looking skin. Vitamin C also helps to inhibit enzymes to prevent them from breaking down the connective tissues between skin cells. In addition, Vitamin C helps to even out pigmentation by neutralizing a copper compound within tyrosinase (an enzyme) to prevent the enzyme from reacting with tyrosine, which produces melanin.

SCIENTIFIC STUDY

Study on the Free Radical Scavenging Activity of Vitamin C from Kakadu Plums

One study was done to measure the free radical scavenging activity of Vitamin C derived from Kakadu plums. The testing medium was using the DPPH methodology which tests antioxidant activity by tracking the absorption and neutralization of electrons. Recall that antioxidants work by donating their extra electron to the free radical which ends the chain reaction caused by the free radical. In this study, the Vitamin C derived from the Kakadu plum was tested at varying concentrations: 0.05%, 0.1%, and 0.2%, with Trolox[®] (an antioxidant) as the positive control sample. The DPPH solution and varying Vitamin C concentrations were incubated for 30 minutes and 24 hours. The results showed that the Kakadu plum Vitamin C was effective at free radical scavenging, proving itself to be a strong antioxidant. The antioxidant activity was also found to increase with concentration, with the 0.2% concentration showing significantly antioxidant efficacy at 54% after 30 minutes to 79% after 24 hours.

Vitamin C is a powerful antioxidant with free radical scavenging abilities. Vitamin C is also known to boost collagen production and even out skin pigmentation. A downfall of Vitamin C is the fact that it is unstable and will oxidize over time. Three Ships works to combat this oxidation through different ways, such as formulating with stabilizers like Vitamin E. This powerhouse ingredient can be found in Three Ships' Dew Drops Mushroom Hyaluronic Acid + Vitamin C Serum.