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**DESCRIPTION**

BV-OSC (Tetrahexyldecyl Ascorbate) is a stable, oil soluble form of Vitamin C.

**PROPERTIES**

- BV-OSC at 0.1% reduces melanin synthesis by 80%.
- BV-OSC at 10% eliminates age spots in 16 weeks.
- BV-OSC at 3% in vivo reduces Delta-L value by 15% vs. placebo (22 people), a way to measure whitening effect.
- BV-OSC at 0.1% in vitro increases collagen by 50%.
- BV-OSC tested at 10% in vivo to treat acne with 80% of patients (12 people) satisfied with results.
- BV-OSC increases collagen synthesis at least twice as much as ascorbic acid.
- BV-OSC inhibits MMP-2 and MMP-9 over 3 times better than ascorbic acid.
- BV-OSC penetrates the skin 4 times better than Magnesium Ascorbyl Phosphate.
- BV-OSC delivers pure Vitamin C 50 times better than ascorbic acid.
- BV-OSC decreases 8-OHdG induced by UV-A.
- BV-OSC decreases p53 expression induced by UV-B.
- BV-OSC protects the cells against UV-B better than other esters of Vitamin C.
- BV-OSC works synergistically with Thiotaine as both penetrate the cells for anti-oxidant activity.

**FORMULATION**

BV-OSC is a slight to pale yellow liquid with a faint characteristic odor. It is very soluble in ethanol, hydrocarbons, esters and vegetable oils. It is insoluble in glycerin and butylene glycol. BV-OSC should be added into the oil phase at temperatures below 80°C. It can be used in formulas with a pH range of 3 to 6. Use level is 0.5% - 3%. BV-OSC is approved as a quasi-drug in Korea at 2%, and in Japan at 3%.

**LEGISLATION**

INCI Name: Tetrahexyldecyl Ascorbate  
JSCI: 532297 (Ascorbyl Tetra 2-Hexyldecanoate)  
CAS: 183476-82-6  
EINECS:

KOREA: Approved as a functional ingredient for whitening at 2%.

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BV-OSC ELIMINATES AGE SPOTS

BV-OSC at 10% concentration was applied to the skin of 10 people for a period of 16 weeks. Results (below) show that BV-OSC eliminated age spots.

COMPARISON OF ABILITY FOR COLLAGEN SYNTHESIS

Proline involved in collagen synthesis was labeled by $^3$H and added to human dermal fibroblasts (NHDF) with various concentrations of BV-OSC/L-ascorbic acid and cultivated for 24 hours. Then collagen fractions were obtained. The amount of $^3$H taken into the collagen fraction was measured by using a liquid scintillation counter and slot blotter. As shown below, BV-OSC significantly promoted collagen synthesis.

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