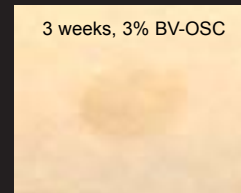
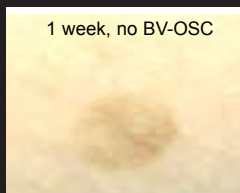


Barnet Products Corporation 140 Sylvan Avenue Englewood Cliffs NJ 07632
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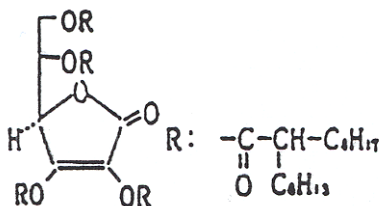
BV-OSC

- Whitening - now tested *in vivo*
- MMP Inhibitor
- Anti-Oxidant
- Collagen Synthesis & Protection
- DNA Protection



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 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 at 10% *in vivo* treats acne with 80% of patients (12 people)
- * 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.

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. BV-OSC can also be used at pH 7 in combination with chelating agents or antioxidants (guidelines are offered). Use level is 0.5% - 3%. BV-OSC is approved as a quasi-drug in Korea at 2%, and in Japan at 3%.

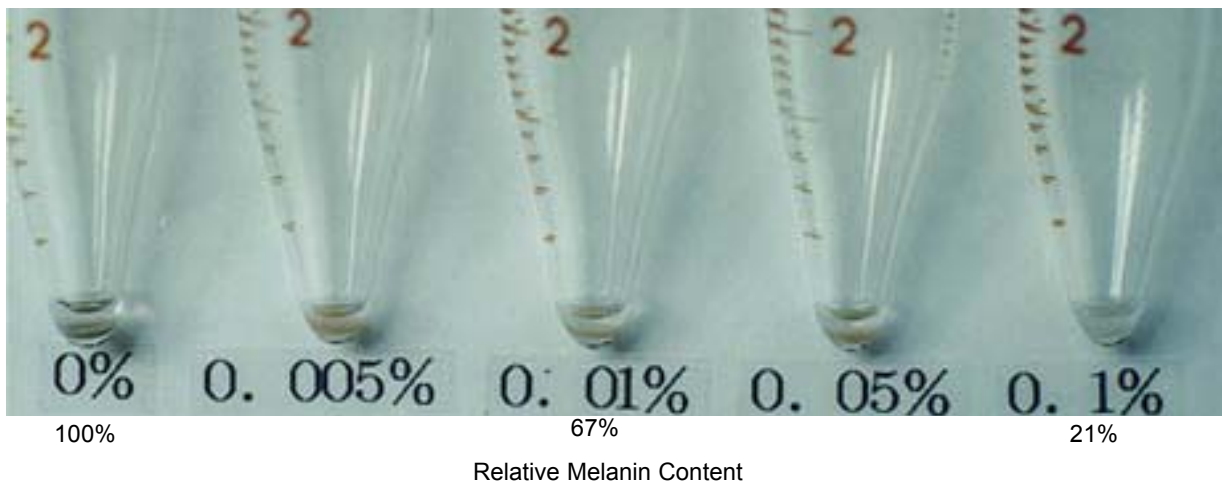
LEGISLATION

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

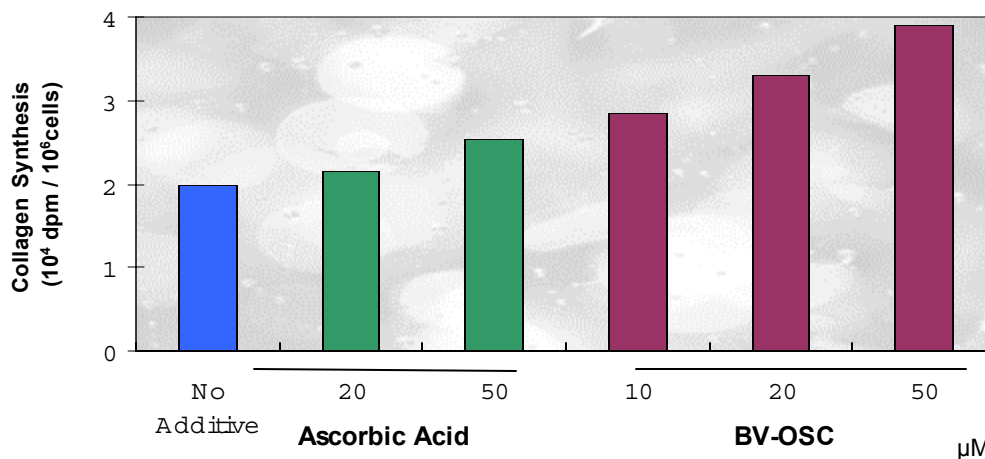
KOREA: Approved as a functional ingredient for whitening at 2%.

BV-OSC

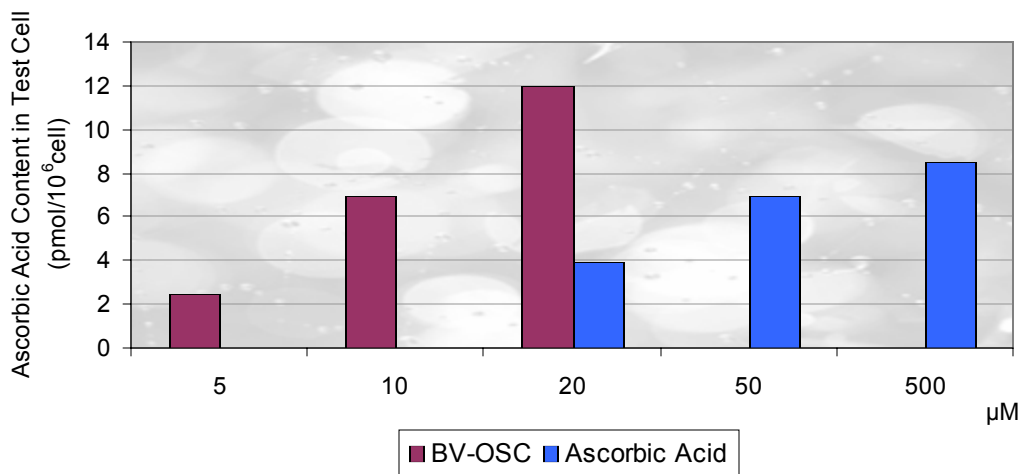
REDUCTION OF MELANIN SYNTHESIS



COMPARISON OF ABILITY FOR COLLAGEN SYNTHESIS



UPTAKEN CONTENT OF INTRACELLULAR (KERATINOCYTES) ASCORBIC ACID



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BV-OSC

ADDITIONAL FORMULATING GUIDELINES

The following information should be considered when formulating with BV-OSC.

1. pH must be below 6.0 (for the water phase): Although BV-OSC is oil soluble, it's stability can be effected by the pH. The factory suggests that the pH be adjusted to below 6.0 before BV-OSC is added to the formulation. (adjusting it after it is added may be too late).
2. Use of chelating agents and antioxidants (tocopherol) is suggested.
3. Avoid long exposure of the formulation to strong heat.
4. BV-OSC should not be added alone in to water. It should be mixed with at least an equal amount (3.5%) of non-polar oils (squalane or esters)
5. Quasi Drug whitening formulation must contain 3% BV-OSC. The specified range is + 10%, which calculates to 2.7 - 3.3%.
6. BV-OSC in the formulation. The factory therefore suggests that 3.3% BV-OSC should be added to the finished formulation to insure compliance with the required range of 2.7 - 3.3%.
7. The use of Hectorites with BV-OSC may cause instability. Customer should evaluate the stability upon the use of BV-OSC and Hectorites.

