



»Preservatives for Cosmetics«

Second Edition by David C. Steinberg

A Book Review by

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Another attempt to start a new service to our members, in other words YOU, is to include in every issue of the IFSCC Magazine a review of a new book in cosmetic science. This depends of course on the willingness of the publishers of these books to send two free copies of such a book to me in order to identify two reviewers. Publishers, please send an e-mail first before sending copies in order to assess the suitability of your new book for inclusion in this series at johann.wiechers@uniqema.com prior to sending books to me at P.O. Box 2, 2800 AA Gouda, The Netherlands.

We start this series with a review of the second edition of a standard work on preservatives in cosmetics bearing exactly that same title... The author is David C. Steinberg, the Publisher Allured Publishing Corporation, Carol Stream, IL 60188-2787 USA, and the ISBN number 978-1-932633-12-2, price US\$ 69, 137 p. in hard cover. Order at www.allured.com/bookstore or Books@allured.com.

This second edition of »Preservatives for Cosmetics« appears some 10 years after the original. As the author states in the introduction, this successor volume updates and expands (although it only runs to a modest 127 pages). New sections include those on water activity and non-traditional preservatives. Given the fast changing nature of this market responding to regulatory and other factors, such a new edition is timely.

The initial general information section of the book covers frequency of preservative use as reported to the FDA over the last 10 years. This is followed by a succinct overview of the basic approval and regulation systems in the US, the European Union, Japan and Canada (supplemented by reference tables in the appendix covering the CIR reviews, the approved or restricted lists for Brazil, Canada, the EU, Japan and Mexico). The introduction is completed by a sage analysis of the safety (*i.e.*, sensitization potential) of preservatives.

The heart of the book is a listing of the common and less frequently used preservatives, alone and in commercially available combinations. A simple but comprehensive standard format is adopted comprising: INCI name, CAS number, EINECS number, chemistry, regulations, cosmetic ingredient review, non-cosmetic approvals, producers and trademarks, solubility, activity, inactivators, stability, incorporation, analysis and concerns. A separate chapter covers »Preservatives as active ingredients« emphasizing the consequent drug legal status in the US of claiming micro-organism kill in applications such as anti-dandruff, antiseptic, anti-fungal, acne and anti-plaque.

'Natural' preservatives such as formaldehyde, tea tree oil, blends and grapefruit seed extract (given a withering critique!) are dealt with in the following chapter. Two new chapters follow. Firstly 'non-traditional preservatives' such as enzyme

systems, glycols, high purity mono-esters and biomimetic phospholipids are reviewed. The second new chapter is perhaps the most thought-provoking. It covers water activity, showing how an understanding can avoid the need for additional preservatives in some formulations, and also introduces Hazard Analysis Critical Control Point (HACCP), a system used in the food and drug industry to identify, monitor and control locations where contamination could possibly occur. According to the author, it has been clearly shown that such studies can 'greatly reduce reliance on routine microbiological testing and provide a high degree of confidence in cosmetic product safety'. The acronym is introduced in the first sentence of the book, but the wait of more than 100 pages to find out what it means is worth it!

The book concludes with two short chapters covering antioxidants and chelating agents, the mechanism of the latter in enhancing the performance of antioxidants and particularly preservatives is elucidated.

An authoritative book on preservatives has the potential to be a cure for insomnia. David Steinberg has taken great care to ensure that this volume is an excellent read. It is well indexed, and so functions as a ready reference manual. The author's sense of humor is allowed to come through without diminishing from his scholarship. Highly recommended!

