

Book Review

ENCYCLOPEDIA OF SHAMPOO INGREDIENTS, by Anthony L. L. Hunting. Micelle Press, Inc., Cranford, NJ, 1983. 467 pages, paper bound. Price: \$75.00.

The *Encyclopedia of Shampoo Ingredients* is a telephone directory-sized compendium of everything you always wanted to know about shampoo composition and then some. Although much of the book is to be recommended, it is basically flawed by an excess of "marketing" information having limited timeliness and questionable significance. The imbalance shows in the book's organization which allocates an inordinate emphasis to a survey of the ingredient listings of shampoos. This display detracts from the book's focus as a technical reference. However, despite this shortcoming, Mr. Hunting has produced an authoritative, interesting book, one containing an assortment of information useful to shampoo manufacturers, formulators, and raw material promoters.

The encyclopedia contains two main sections, the first of which consists of a survey of ingredient panels from 438 shampoos. These shampoos, representing over 80 manufacturers, were gathered from the New York tri-state area during the year beginning September 1980. Mr. Hunting categorizes the price range (inexpensive, low-medium, medium-high, and

expensive), and provides the marketing position(s) used for each shampoo's promotion. The difficulty here is that shampoo marketing is dynamic, always undergoing change. By the time the book finds its way to the hands of the reader the data presented for some shampoos will have been altered. Some shampoos will have been removed from sales; others, not cited, will have taken their place. This section is interesting to glance through, but the information disclosed is more suited to a trade periodical that can be updated regularly, rather than to the more permanent reference text which this book strives to be.

Statistics presented from data in this section are not only vulnerable to rapid obsolescence, but lead to confusion. Mr. Hunting introduces the RIF value (Relative Importance Factor) as a calculation based upon the numerical position of an ingredient on a shampoo label and the frequency that ingredient appears in the 438 shampoos surveyed. The relevance of the RIF number is questionable since (1) ingredients under 1% concentration can be randomly arranged on the label according to the discretion of the manufacturer, and (2) ingredients of shampoos with sizeable market share are given equal weight with those ingredients of local private label brands. Hence, we find that a shampoo structural ingredient such as

Sodium Cocoglyceryl Ether Sulfonate is given the same RIF number as the folkloric Jojoba Extract. A technologist and a promotionalist will place opposite values on such ingredients, discounting the worth of the other. Those interested in statistics intrinsically should appreciate the RIF calculation, but the tabulation of ingredient popularity, presented in the text, suffices for general interest.

The second main section, spanning about two-thirds of the book, is an encyclopedic mixture of chemical dictionary and technical essay. It is the section by which the book will find its use, and it is the section in which Mr. Hunting shines as a technologist. When an ingredient is discussed, its chemical classification and formula are presented, its reason for use is given, and safety data, physical data, and use level are disclosed. Also given are the suppliers of the ingredient, the commercial shampoos having the constituent and statistical marketing data. However, it is the attendant technical information which Mr. Hunting provides in detail for all ingredient listings that is most invaluable. For example, on Cocamide MEA: "Because secondary amides are much more resistant to hydrolysis than tertiary amides, coconut monoethanolamide should be preferred to coconut diethanolamide in acid shampoos." On Coconut Oil: "Ingredient labels can be misleading if a chemical reaction occurs during the processing of a shampoo. Except for small amounts of unreacted material, a shampoo, which from a study of the label, appears to contain coconut oil may not in fact do so." On Nucleic Acid: "It is doubtful that the addition of a nucleic acid contributes to the performance of a shampoo." In these discussions Mr. Hunting supplies a blend of authoritative scientific wisdom, common sense, and a highly subjective point of view gathered from personal experience. The feeling the reader gets is that the author has extended

his thoughts openly to those eager to be informed. Certainly not every one will agree with Mr. Hunting's pronouncements; nevertheless, his insights are refreshingly candid and welcome.

Interspersed with the chemical dictionary, Mr. Hunting has written several dozen definitive essays ranging from aspects of shampoo marketing to industrial chemistry. These articles discuss the composition of shampoos in various marketing categories (Herbal, Ethnic, Salon, Baby, Color, etc.). They tell about the ingredient classes used in formulation (Preservatives, Conditioning Agents, Chelating Agents, Antidandruff Agents, etc.). They detail the chemistry of raw materials (Ethoxylates, Sorbitan Derivatives, Polymers and Resins, etc.). Particularly well covered are the subjects of Imidazoline-Derived Amphoteric, Fatty Acids, Foam Boosters and Stabilizers, and Fatty Alcohol Sulfates. Unfortunately, Mr. Hunting does not supply an index to his technical articles. One has to leaf through pages to find that "Interrupted Soaps" falls under "Mild Shampoo Ingredients." An index would also guide the reader to incidental subjects such as Oxo and Ziegler chemistry which are covered under the Lauryl Alcohol heading. There is no need to index specific ingredients; they are arranged alphabetically in the encyclopedia conforming to the nomenclature in the *CTFA Cosmetic Ingredient Dictionary*, both second and third editions.

In a page towards the end of the book the author acknowledges the havoc obsolescence could play with the timeliness of the encyclopedia's content. He takes this opportunity to update the subjects of Colors, Formaldehyde, and Medicated Shampoos. Also provided are several appendices giving raw material supplier information and tabulations of statistical data. He closes the book with a bibliography for the pursuing reader and a list of 273 references cited in the text.

With respect to the physical quality of the book, the page paper requires upgrading and so does the intensity of the ink which appears somewhat faded, perhaps because of the yellowish tone and porosity of the heavy paper. Micelle Press, Inc., the publisher, has placed a steep \$75.00 price on the book; its purchase can be

justified solely from the teachings of Mr. Hunting. This book does not conflict with the intent of the *CTFA Cosmetic Ingredient Dictionary* but rather supplements its application in the special sector occupied by shampoo ingredients.—**TERRY GERSTEIN**—Revlon Research Center, Inc.