Surfactant use

By 1991, U.S. demand for surfactants will reach 8 billion pounds per year, valued at over $4 billion, according to a study by the Freedonia Group Inc.

The Cleveland-based market research firm noted that as the domestic market for surfactants continues to mature, demand will moderate to 2.2% per year. From 1970 through 1986, the overall market grew by 2.6% per year.

Although the smallest segment of the market, amphoterics have been showing the fastest growth since 1970 because of their non-irritating qualities, excellent emulsifying characteristics and compatibility with other materials. Since 1970, use of amphoteric surfactants increased by almost 11% per year, from 9 million pounds to 47 million pounds. Continued annual growth of 6.7% is expected to boost the market to 65 million pounds by 1991.

Anionics, used in traditional solid detergent formulations, accounted for 62% of the total market in 1986. As liquid detergents dominate the market, anionic growth is expected to slow to 1.4% per year, the firm said. By 1991, they will account for less than 60% of the total and by 1995, for 58%.

Continuing to steal market share from anionics, nonionic surfactants, used in liquid laundry products, will show above average growth of 3.6% per year through 1991, accounting for 31% of the total surfactant market that year.

Cationics, meanwhile, will show healthy growth of almost 3% per year, according to Freedonia, citing their compatibility with other detergent raw materials. In 1986, demand for these surfactants totalled 563 million pounds; by 1991, demand should reach 639 million pounds, Freedonia predicted.

Singapore plant

Ethoxylates Manufacturing Pte. Ltd. is constructing a facility on the island of Pulau Ayer Merbau, Singapore, to manufacture ethoxylated nonionic surfactants.

Ethoxylates Manufacturing is a joint venture between P.T. Prima Inti Perkasa of Indonesia and Albright & Wilson (Marchon) Pte. Ltd. of Singapore.

Construction, now under way, is expected to be completed by the end of the year. Principal products will be fatty alcohol ethoxylates which are prime raw materials for manufacturing liquid detergents and textile auxiliaries. The facility will have a rated capacity of 18,000 metric tons (MT) per year.

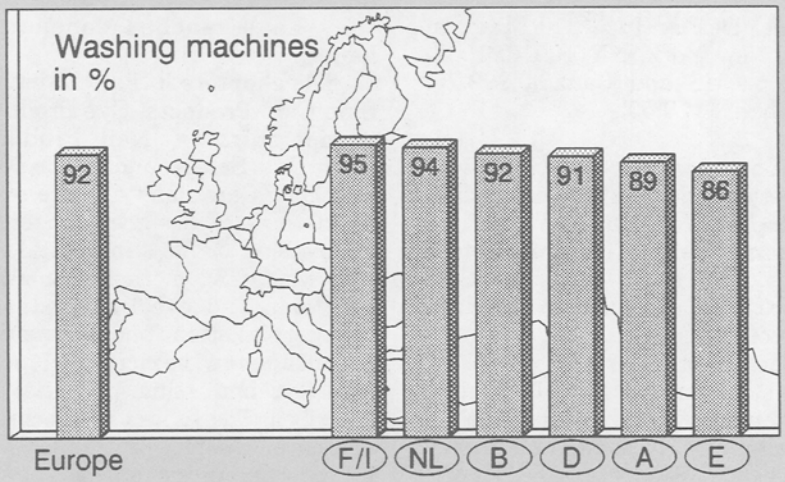
A major portion of planned production is expected to be sold within Southeast Asia, where the consumption of ethoxylates, currently estimated at 10,000 MT annually, is predicted to grow substantially.

Japan cosmetics

The operating income of Japan's five leading personal care product firms showed an increase of 16% for 1986 over 1985, and another 6% is expected for 1987, according to *Nomura Weekly*. Factors cited for the increased profits included: new products, such as hair tonic, developed in recent years; lifestyle changes which have caused renewed interest in such products as shampoo, rinse and conditioners; and the lower cost of raw materials due to the appreciation in the value of the Japanese yen.

News briefs

USI Chemicals Co. has consolidated the color concentrate and additive businesses of the former **Nortech Division of Enron Chemical Co.** and **USI**. The resulting business will operate as a unit of USI's specialty polymers group. USI acquired Enron Chemical Co., including its Nortech Division, during late 1986. Meanwhile, **Brian R. Crosby** has been appointed sales manager for color



About 92% of households in Europe have washing machines in the household building. The chart shows percentage of households with access to washing machines in (from left): France/Italy, the Netherlands, Belgium, Germany, Austria and Spain. Automatic dishwashers are available to 21% of households in Europe; in France that figure is 33%, in the Netherlands, 8%. Tumble dryers are available to about 10% of European households, to about 38% in Belgium and about 1% in Italy.
–From "The Detergent and Cleanser Market in Europe", presented by Hans-Dietrich Winkhaus, executive vice president of Henkel KGaA, Dusseldorf, West Germany, during the Second World Conference on Detergents, Oct. 5-10, 1986, Montreux, Switzerland.

concentrates, additives and compounds for USI.

Engelhard has begun producing specialty zeolites catalysts at its facilities in Seneca, South Carolina.

Wayne R. Salkeld has been appointed director of the specialty chemicals department of **Sandoz Chemicals Corp.**

DeSoto Inc. has sold its Orange, California, consumer paint and household detergent manufacturing facility to **Akzo Coatings America**, a subsidiary of **Akzo Chemie**. The transaction took place June 25, 1987. Meanwhile, DeSoto's Chemical Specialties Division has announced it will install a Chemithon sulfur-burning unit at its Santa Fe Springs, California, facility. The $1.5 million unit is scheduled to be in operation in early 1988. The division supplies surfactants and chemical formulations to industrial, institutional and agricultural markets.

A.H.L. Alberts has joined **Emery Chemicals'** European sales division as manager of marketing and distribution.

A new soap plant will be established in Papua, New Guinea as a joint venture between **Colgate-Palmolive Co.** and a local soap manufacturer, **Melanesian Soap Ltd.** According to a report in *The Cocomunity* newsletter, the new company, called **Colgate Palmolive Pty.**, will market the soap locally.

Crosfield Chemicals Inc., a member of the **Unilever** group of companies and a wholly-owned subsidiary of **Unilever United States Inc.**, has acquired the assets of **Stauffer Chemical Co.'s** metasilicate business, including facilities in Joliet, Illinois, and Pittsburgh, California.

The West German chemicals and detergents group, **Henkel**, has announced it would buy the French detergents company **Lesieur-Cotelle**, according to a report in *Chemistry and Industry* published in London, England, in July.

Meanwhile, **Donald Buchanan** has been named vice-president and general executive of **Akzo Chemie**. He will continue as general manager of **Armak's** Canadian fatty amines operations.

Surfactants & Detergents Publications

Book reviews

Cosmetic Safety, A Primer for Cosmetic Scientists (Cosmetic Science and Technology Series, Vol. 5), edited by James H. Whittam (Marcel Dekker Inc., 270 Madison Ave., New York, NY 10016, 1987, 368 pp., US and Canada $99.75, elsewhere $119.50).

This book provides an overview of cosmetic product safety for product developers. It is divided into two sections, Part I: General Safety Issues, and Part II: Safety Considerations in Specific Product Categories.

The chapters in Part I include Cosmetic Safety, Eye Irritation, Teratogenic Risk Assessment: A Managerial Viewpoint, Laboratory Safety, and Statistics and Experimental Design. This section elucidates the types of adverse reactions consumers have experienced as a result of the use of cosmetics as well as methods for evaluating skin sensitization (allergy) and eye irritations in preclinical (animal) and clinical (human) sample populations. The concepts of relevance of animal experimental models to human response and adequate margin of safety are discussed. The longest chapter in the book describes techniques which can be used to design and statistically evaluate safety studies and to perform postmarketing surveillance of products once they have reached consumers' hands.

The chapters in Part II include Skin Care Products, Eye Products, Antiperspirants, Nail Products, Hair Dye Safety and Toxicology, and Hair Care Safety. Since many cosmetics are designed to remain on the skin or have incidental contact with skin, methods for assessing skin and eye irritation, contact sensitization, photodermatitis, percutaneous toxicity, comedogenicity, and sting potential are described. The subject of subchronic and chronic safety testing is raised in the chapter on antiperspirants since these products, among many others, are designed for long-term daily use. The final three chapters address safety concerns associated with nail and hair care products, i.e., nail polishes and extenders and contact dermatitis; hair sprays and inhalation hazard; hair colorants and carcinogenicity in animals.

Throughout the book, several authors mention a developing area of methodology which may be of interest to cosmetic scientists: alternative test systems utilizing invertebrates or cell cultures rather than live mammals. The book devotes considerable space to descriptions of preclinical and clinical safety substantiation methods which would not likely be used by someone untrained in toxicology. Since safety evaluation is a complex process that depends on the judgment of experts, it is hoped that cosmetic product formulators would read this book with a view toward raising their awareness of the extensive testing that may be necessary if they develop a new formula and of the need to consult regularly with their company safety experts regarding necessary safety testing.

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Nonionic Surfactants: Chemical Analysis, edited by John Cross (Marcel Dekker Inc., 270 Madison Ave., New York, NY 10016, 1987,