SD&C Committee Spotlights

SOAP AND SYNTHETIC DETERGENT ANALYSIS COMMITTEE (JOINT WITH ASTM)

This AOCS committee is joint with ASTM Committee D12 on Soaps and Other Detergents, wherein it is organized as a subcommittee. The ASTM subcommittee presently is organized with five working task groups as follows:

Task Group 35: Analysis of Alpha Olefin Sulfonates

R.D. Gorsich, Chairman; G. Battaglini, K. Guin, L. McFarquahar, H.F. Robinson, E.A. Setzkorn, J.P. Simko, G. Spiegelman.

During the past year, an alpha olefin sulfonate analysis method covering six components normally found in this material was published in ASTM. Further work is proceeding on tests for color and equivalent weight determinations.

Task Group 36: Analysis of Carboxymethylcellulose (CMC) in Detergents

P. Kudirka, Chairman; A.H. Russell, A.F. Cronin, J.E. Rader, F.J. Masucci, D.S. Corliss, K.F. Guin, E.A. Setzkorn, M.L. Mausner.

Dr. Paul Dudirka has consented to act as chairman for this Task Group. A round robin is planned for 1979, testing a colorimetric procedure revised through the 1978 efforts of the Task Group.

Task Group 37: Analysis of Linear Detergent Alkylate

J.R. Morrison, Chairman; C.W. Ellis, K. Guin, R. Kelley, D. Lundgren, M. Mausner, E.A. Setzkorn, J. Corinth, G. Battaglini, P. Kudirka, D. Risi, P.J. Masucci, H. Robinson, J. Williams, F. Rehbein, W.W. Klemme, M.A. Johnson.

Round robin work conducted on eight physical property tests for detergent alkylate was conducted in 1978. In general, the precision of the results was not satisfactory. Some special work on the troublesome tests will be conducted in 1979. Another round robin is also scheduled for 1979. The addition of nine new members to the Task Group is expected to stimulate the Task Group program and also provide much additional test data for statistical evaluations.

Task Group 38: Analysis of Nonionic Surfactants

K. Guin, Chairman; J. Crossley, C.W. Ellis, R. Gorsich, R. Kelley, W. Kraszewski, R. Lehne, H. Locke, M.L. Mausner, A.H. Russell, E.A. Setzkorn, A. Schmitz, G. Battaglini, W.W. Klemme, F.J. Masucci, H. Robinson.

Another round robin activity was completed in 1978, completing tests on all quality parameters of commercial nonionic surfactants. Test results for color were not satisfactory and will require further study.

Additional work is planned utilizing High Pressure Liquid Chromatography for analysis of polyethylene glycols in nonionic surfactants, and a hydroiodic acid cleavage method will be studied for identification of the alkyl hydrophobe in a nonionic surfactant. The HI cleavage method forms alkyl iodides from the long chain alcohol portion of a nonionic. The Task Group will study the isolation of the alkyl iodides followed by characterization by GLC.

Task Group 39: Analysis of Anionic Detergent Actives by the p-Toluidine-HC1 Method

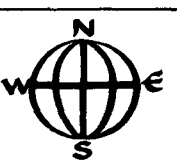
L.H. McFarquhar, Chairman; F. Rehbein, R. Gorsich, G. Battaglini, J. Crossley, H. Robinson, A. Russell, K. Guin, E.A. Setzkorn, G. Hile.

A round robin was conducted using this method to test four different types of anionic detergents for active content. The precision of the analyses was very satisfactory; however, the Task Group expressed concern on the accuracy of the method for the alcohol ether sulfate type active. This question will be studied in the coming year. In addition, studies are planned on extending the method to include the determination of equivalent weight of the anionic active matter.

Members-At-Large: W.J. Beach, T.C. Campbell, J.P. Cassidy, B. Cohen, R.G. Davis, J.J. Diliberto, G.D. Downey, G.C. Feighner, H.E. Gochman, D.R. Goodman, I.J. Greenberg, E.P. Holtveg, F.T. Lense, G.A. Lux, A.M. Mankowich, E. Miller, R.T. Morlino, R.E. Reavill, H. Stupel, D. Swit, J.R. Taylor, R.M. Teates, M. Brungel.

EUGENE SETZKORN
Chairman

SD&C Four Corners



Chairman, International Relations — Eugene Marshack • Corresponding Secretaries — B. Fell and P. Strasser

Australia ..... P. Strasser

The Tenth Congress of the International Federation of Societies of Cosmetic Chemists

The 10th Congress, with a theme of "Cosmetic Horizons," attracted 450 delegates and 150 accompanying persons from 21 countries at Sydney, Australia, last October.

The opening took place in the Sydney Opera House with Mr. H.J. King, chairman of the organizing committee and immediate past president of the Australian Society, welcoming the delegates.

Dr. M.R. Nearn, president of the Australian Society of Cosmetic Chemists, welcomed the overseas visitors and gave a short history of the A.S.C.C. since its conception in 1963. A brief description of Australia and its cosmetic and toiletries industry consisting of 58 manufacturers employing 4,500 people and with sales of $233 million established both the importance of the industry to Australia and a context for the Congress. Dr. N. Fukuhara, outgoing

president of the International Federation, thanked the organizers and introduced Mr. Peter H.A. Strasser, the incoming President of the I.F.S.C.C., inviting him to open the Congress.

Mr. Strasser noted the number of IFSCC member societies had grown to 21 with the admittance of South Africa at the 1978 Council meeting and that societies in New Zealand, Israel and Greece were in various stages of formation.

The increasing involvement of the Federation in regulatory affairs was illustrated in an international regulations meeting held after the Congress. Also, the IFSCC has been approached by the World Health Organization to become an affiliated body which can be consulted for scientific and technological advice.

A new initiative undertaken by the federation involves the creation of an award to be given in noncongress years to the member societies exhibiting the greatest relative activity and progress in promoting cosmetic science and education for its members, and the organization of an IFSCC-sponsored, one-day, between-Congress conference to be held conjointly with the 1979 Council meeting in Basle, Switzerland. The topic will be "Sensitization Testing and its Relevance to Humans."

The keynote speaker, Professor Emeritus G.M. Badger, chairman of the Australian Science and Technology Council (ASTEC), built his talk around ASTEC and gave a history of the growth of government interest in science and technology. Professor Badger explored the complexities and irrationalities in the current thrust of consumer protection legislation and gave examples of the dangers involved in uncritical acceptance of biological tests on animals without proof of direct extrapolation to man, unrealistic dosages given in some tests, and emphasis on eliminating side effects. He believes that an attempt should be made to determine what is an acceptable risk for food additives, medicaments and ingredients in cosmetics.

Dr. R.O. Hellyer, the scientific program director, introduced the scientific sessions held Oct. 25, 26 and 27. The first group of papers, related to "Dermatology," were presented under the chairmanship of Mr. M.G. De Navarre, the first president of the IFSCC. These covered the dermatological aspects of topicals and their vehicles, ranging from the interaction between the vehicles and medicaments and the influence on percutaneous absorption, to studies of surfactants' safety by use of in vitro cell transformation assay. The highlight was a controversial paper by Prof. A.M. Kligman on "Misadventures in the Toxicologic Study of Topicals." Reasons for the failure to recognize adverse effects before marketing were examined, and the incidence of various complaints illustrated with clinical examples. The use of preselected sensitives was strongly recommended to minimize risk of untoward incidence of consumer complaints.

The second group of papers, on "Sunscreens," was chaired by Dr. G.C. Erlemann, President of the Swiss S.C.C. Four papers were presented, two of which compared methods of testing for protective capability and for water resistance, respectively. A study of a natural sunscreen, urocanic acid in human skin, was fascinating, but the scientific highlight was the paper by A. Meybeck of Parfums Christian Dior, France, "E.S.R. Study of the Free Radicals Formed by Action of Ultra-Violet Light on Skin Proteins." This paper received the IFSCC Award of 4,000 Swiss Francs for the most meritorious paper given at the congress.

On Oct. 26, the third session, chaired by Dr. L.I. Conrad, a Past President of the IFSCC, was on the topic of "Emulsion Systems" with eight papers presented. The paper on "Low Surfactant Emulsification" by J.J. Lin of California, USA, was novel in its approach to a formulation process using a solubilization technique and process

optimization to achieve fine particle size emulsions with minimum mechanical energy. It received one of the 1978 IFSCC Honorary Mentions (500 Swiss francs). The other Honorary Mention was accorded to a paper by Mrs. R.M. Handjan-Vila et al. of L'Oreal, France, on "Dispersions of Lamellar Phases of Nonionic Lipids in Cosmetic Products." It discussed the advantages of cosmetic formulations based on aqueous dispersions of lipids in the form of particles having a lamellar structure (Liposome) particularly in regard to lower toxicity and closer control of availability of active substance at the stratum corneus.

The fourth group of papers, "Perfumery Chemistry," was under the chairmanship of Mr. D. Cartwright. Four papers were presented covering the aspects of fragrance perception, description of odor impressions, bacteriostatic activity and a more efficient approach to steam distillation of superficial essential oils.

The papers on Oct. 27, the fifth group, on "Technology of Hair and Hair Products," was chaired by Mr. N.V. Van Abbe. These covered a wide complex set of factors involved in the dyeing of hair, the measurement of physical performance factors in human hair, hair proteins, and the effects and absorption of ginseng and quaternary ammonium compounds. That afternoon was devoted to short papers under the chairmanship of Mr. C.W.M. White. There were four papers on "Hair Technology," three papers on "Sunscreens," and five papers on "Cosmetic Technology." Each group was followed by a group discussion in which the speakers formed a panel. ●

Germany ..... B. Fell

The program has been announced for a meeting April 25-27, 1979, in Mainz of the Detergent Chemistry section of the German Chemical Society.

Plenary lectures will be: *Hygienic Aspects of Washing and Cleaning,* Prof. Dr. L. Grün, Düsseldorf; *Chemical Aspects of Washing and Cleaning,* Dr. P. Berth, Düsseldorf; *Hygienics and Textile Washing,* Prof. Dr. H. Bösenberg, Münster; *Agents for Personal Care and Cleaning–Hygienic and Dermatologic Questions,* Prof. Dr. H. Tronnier, Dortmund; *Fundamental Aspects of the Hygienics of Solid Surfaces,* Prof. Dr. E. Kanz, Hamburg; and *Practice of the Hygienics of Solid Surfaces in Households and Industry,* speaker to be named.

Discussion papers: *Hygienic Requirements with the Cleaning and Disinfection of Solid Surfaces,* Dr. K. Bansemir, Düsseldorf; *Destruction of Microorganisms on Solid Surfaces,* Prof. Dr. Ing. M. Loncin, Karlsruhe; *Phosphoric Esters as Components of Disinfection Cleansing Agents,* Drs. H.D. Nielen and G. Sorbe, Knappsack; *Disinfecting Detergents in Trade and Industry,* Dr. H. Grund, Düsseldorf; *Compatibility of Optical Whitening Agents with Chlorine-Generating Substances in Disinfecting Washing Processes,* Dr. C. Eckhardt, Basel; *Experiences with the Application and Efficacy of the Relevant Hygienic Procedures in the Laundry Praxis,* Textilchemiker H. Sauer, Stuttgart-Hohenheim; *Relations Between Softening Agents and Napkin Dermatitus,* Dr. L.G.J. Schmitt; and *Health and Cleanliness of the Infant–Contributions from a Study,* Dr. J.R. Witting, Mainx.

The following tables indicate recent production and consumption of detergent products in West Germany.

Application of Surface Active Agents in West Germany, 1976 (Tons)

	Anionics	Nonionics	Cationics	Sum
Household detergents	84,000	27,000	17,000	128,000
Soap industry	1,000	100	---	1,200
Laundry	5,900	4,600	---	10,500
Cosmetics	13,000	3,000	100	16,100
Textile industry	8,500	10,000	1,600	20,100
Leather and for industry	800	400	100	1,300
Food and feed	---	1,500	---	1,500
Agriculture	2,500	2,000	50	4,550
Pulp and paper	700	1,500	100	2,300
Chemical industry	9,500	5,000	2,200	16,600
Dyes and printing inks	1,000	1,500	150	2,650
Mining and petroleum industry	300	2,000	250	2,550
Metal industry	4,000	2,500	50	6,550
Building industry	3,000	1,000	400	4,400
Industrial cleaner	2,500	3,700	150	6,350
Others	500	400	130	1,030

Production (1000 T)

Year	Heavy duty detergents	60 C Detergents	Softening and brightening agents	Special detergents	Dish washing agents		Household cleaner	Total
					manual	machine		
1975	441	130	274	58	121	40	131	1,219
1976	472	155	312	72	117	49	136	1,329
1977	475	130	335	63	128	58	121	1,321

Consumption (1000 T)

Year	Heavy duty detergents	60 C Detergents	Softening and brightening agents	Special detergents	Dish washing agents	Household cleaner	Total
1975	424	127	290	60	151	137	1,190
1976	466	150	302	75	154	143	1,290
1977	480	126	326	66	173	149	1,301