

Making Cosmetics Seminars

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John Woodruff

Making Cosmetics is annual event combining an exhibition, seminars, technical presentations and an interactive solutions centre for everyone manufacturing and outsourcing personal care products. It explores the complex issues of taking products from concept to consumer and gives attendees an effective opportunity to network and to discuss key technical, regulatory, and operational issues.

There were mixing demonstrations in the exhibition area to show how **Silverson** high shear mixers can rapidly disintegrate and dissolve solids, hydrate thickening and stabilising agents and create stable emulsions. **IKA** was showing its laboratory scale process plant for mixing and emulsifying. **Netzsch Mastermix** demonstrated examples of its mixing, dispersing and grinding equipment for cosmetic manufacturing and **Quadro Engineering** had YTron-Quadro processing equipment on show.

Safety and efficacy testing laboratories were represented by **Alba Science, Cutest Systems, AMA Laboratories, EnviroDerm Services, Eurofins and International Research Services**. Suppliers of laboratory testing instruments included **Delfin Technologies** and **Biox Systems**. Contract and own label manufacturers were also exhibiting their services and experts from the **CTPA** were on hand to guide delegates through the regulatory hurdles of marketing cosmetics in Europe.

Erika Bonnegrace, **CTPA**, set the scene with a presentation on what you need to know when starting out as a would-be cosmetic entrepreneur in which she highlighted the basics of EC 1223/2009. Bonnegrace outlined the 10 Key Principles of the Cosmetics Regulation that must be followed when starting to make or import cosmetic products to ensure they are safe and legal. Later that day Emma Meredith and Amanda Isom, **CTPA**, brought delegates up to date with the latest reports on cosmetic claims, nanomaterials and substances with possible endocrine-disrupting properties. Significant issues still to be decided, such as fragrance allergens and preservatives and points of difference across member states and the areas deemed to be outside the EU were also discussed.

The difficulties of complying with regulations for the fragrance industry was the subject presented by Alan Orbiston, **IFRA (UK)**. Fragrances are a complex mixture of naturals, synthetic odorous chemicals and functional ingredients and there are approximately 3,000 of these available to the perfumer. **IFRA** is the global trade association that represents the fragrance industry and promotes the safe use of fragrances. It does this through a dedicated science program that focuses on fragrance safety that helps both the consumer and the environment.

IFRA sets standards that take into account sensitisation, phototoxicity, systemic toxicity and ingestible toxicity where appropriate and issues certificates of compliance to **IFRA** standards depending on the product application and fragrance dosage. EU cosmetic regulations include many of the **IFRA** restrictions in its annexes and conformance to **IFRA** is a requirement in the cosmetic regulations of China, ASEAN, Mercosur and the UAE.

Fragrance creation and turning the customer vision into scent reality was discussed by Penny Williams, **Orchadia Solutions**, who talked us through the process of creating a fragrance for a range of male toiletries where after-shave was the lead product. It is a combination of

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creativity, art, science, technology and insight combined with value and safety, said Williams. The character of the target male was part of the process and it was described as someone who cares about appearance and likes to smell great. Two ideas went forward for further evaluation: Natural - woody, spice with herbal notes, musky, sandalwood; and Urban – amber, spice with citrus notes, woody, mossy, musky.

The subject of male grooming was a colourful and fascinating presentation by Julia Wray, **SPC magazine**. Using statistics for 2015 supplied by **Euromonitor** Wray said that despite roughly half the global population being male, men's specific beauty and personal care products account for just 10% of the total market. However this is worth about \$37.6 billion dollars world-wide, growing at an average 6.2% p.a. although this varies from 14.2% in Latin America to just 1% in Europe.

Wray described the changing perceptions of male masculinity and showed different retail products that were designed for the modern male. These included moisturisers for stubble and beards, body sculpting gels, hair styling and male fragrances. For skin care men want anti-ageing, energising and anti-fatigue products that are non-greasy and quickly absorbed but 93% do not want make-up!

The other 90% of the cosmetic market must be for females and Laura Husband, **Pure Beauty**, discussed the key trends within the UK beauty industry. The UK beauty market represents a 14% share of the total European value and the average UK woman spends approximately £100,000 on cosmetics in her lifetime. Husband illustrated trends across all sectors with new product launches. These included techno and bespoke beauty; energetic and anti-pollution skin care and reverse washing for hair care. There were growth opportunities across all sectors, said Husband, but the biggest potential was for the over 60's.

Aware of the regulatory requirements and with a clear understanding of the market, entrepreneurs need to provide a product brief to the formulator and it is time to select the packaging, instruct a manufacturer and prepare to launch the brand. All these steps were discussed in various workshops and seminars.

Technical processing issues were discussed by Darren Ragheb, **National Formulation Centre**, Alan Bell, **University of Reading** and Jake Grace, **Chemspeed**. The National Formulation Centre received £28 million to establish itself as a laboratory resource to assist companies in bringing new products to the marketplace. Its purpose is to provide radical innovation to accelerate the pace of new product and process development, creating real commercial value by bringing bigger and better innovations to market faster and enabling efficiency in R&D.

Continuing the formulation theme Jack Grace said that formulation sciences play a key role in the development of new products. Typical difficulties inherent to formulation are reproducibility, time constraints and process complexity. In addition, a large number of formulations are necessary to develop a new product or to re-formulate existing products. Grace described how **Chemspeed** tackles these challenges with the FORMAX, a fully automated and unattended formulation workstation. The combination of overhead gravimetric dispensing of ingredients and parallel high-performance formulation vessels allows for faster and better investigation of both the materials and the process. The presentation showed how

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certain challenging parallel workflows have been successfully automated and examples of its use in colour matching of lipsticks, screening raw materials for an eye cream and the processing of a sun cream were discussed.

The majority of cosmetic products have flow characteristics and Alan Bell described how an understanding of their rheological properties and the methods used to analyse them were of benefit to the manufacturer. Most cosmetics are non-Newtonian in behaviour and exhibit viscoelastic properties and Bell outlined techniques to quantify the ratio of elastic/viscous behaviours in materials to determine their true rheological properties.

Cosmetic production is required to conform to good manufacturing practice (GMP), a subject covered by Emma Meredith, Olivia Santoni and Amanda Isom of the **CTPA**. However, according to Ian Moore, **EFfCI**, there is a gap in ISO 9001:2008, which covers GMP for the processing of cosmetic products but does not directly control the raw materials. **EFfCI** is the European Federation for Cosmetic Ingredients with more than 100 member companies and it works with accredited certification bodies to audit suppliers in accordance with ISO 9001 protocols. In 2011 the French Cosmetic Association, **FEBEA**, indicated that it would adopt the **EFfCI** GMP Standard as the minimum acceptable for GMP for suppliers of cosmetic ingredients and now 97 certificates have been issued in 23 different countries.

Arguably the two biggest challenges likely to be faced by the cosmetic formulator are the preservative system and the perfume. The marketing department or brand owner have a big, but usually non-technical, input on the choice of these essential ingredients. **Preservative problems are the subject of this month's feature in SPC**. Trends in fragrances were an integral part of the presentations by Wray and Husband but technical issues in fragrance selection were the subject of the talk by Sunit Atwal, **Robertet UK**. Under the title "Smells Good – But is it Suitable" Atwal discussed the chemistry of fragrance materials and how they can interact with each other, the product base and the packaging.

Fragrance interactions with the base affect solubility, viscosity, clarity and colour. How these interactions can occur and how the perfumer and product formulator may overcome the problems they may cause were discussed. They should liaise to determine the theoretical compatibility of a fragrance by checking that it is soluble in the base and that known reactants are separated. Solvents are used to influence the overall polarity of fragrance compounds so that polar solvents are used for hydrophilic bases and non-polar solvents are used for lipophilic bases. Finally stability tests are carried out to predict the long-term stability of products in a range of environments, which represent potential storage conditions and these tests must be undertaken in the proposed final product and packaging.

The package is the first point of contact on the retail shelf and there were several presentations on this important aspect of cosmetic sales including a review of the latest packaging innovations by Paul Jenkins, **The Pack Hub**, and three talks about aerosols. Unfortunately, with so many concurrent presentations, the writer was unable to attend these.

A product brief should include the claims that are to be made for it and substantiating such claims is an important part of the Product Information File. How to substantiate claims for hair care products was described by Elodie Prestat-Marquis, **Eurofins**, and the changing landscape for USA advertising claim substantiation was presented by Stephen Schwartz,

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IRSI. Skin measurement instruments were presented by Helen Taylor, **EnviroDerm**, and new developments in skin imaging were described by Christos Bontozoglou, **Biox Systems**.

Before a brand is ready to launch owners need a clear understanding of the target market and how to reach it. There were a number of presentations by brand owners who have taken the plunge and all shared a passion for what they were doing. A good example of these speakers was **Sam Farmer** who shared some the mistakes he's made and the lessons learnt from the first few years of his journey. Farmer said that he had not taken MOQs (Minimum Order values) into account; did not realise the extent of potential wastage during processing or the number of free samples that he would have to give out before generating sales. However Farmer has persevered and is now pleased with progress.

The language of marketing was the subject of a talk by Di Tunney, **The Best Organisation**, who explained why the skilful choice of language is so important when talking about beauty products. Tunney said that there is a direct correlation between how we are motivated to behave in a particular way and the language that we use to describe our behaviour. Customers reveal their motivational and behavioural patterns whenever they describe their brand buying experiences and because this is the customer's own language, it is also the language that they are most likely to pay attention to in brand communications. Some consumers are motivated to buy products only when they can decide what they want. They respond to phrases like "the choice is yours" and "only you can decide". Others are motivated when others help them decide by giving an opinion or recommendation and respond to such phrases as "I would suggest" and "my advice would be".

Carol Carson of **Grow your Brands** said that the reduction in the use of cosmetics where we go back to a natural state of clear skin is termed reverse metamorphosis. The causes can be low self-esteem and lack of socialising; homeworking where there is no need to leave the home and go through the routine of putting on makeup or simply a lack of time in a busy life. Carson gave examples of products that could be aimed at these different categories before describing life changing events and emphasising the products that should be aimed at the older woman.

The presentation that the writer found the most uplifting was that by Sarah Glover of **Born to Be Beautiful**, which is a registered charity aimed at restoring dignity and hope to lives devastated by exploitation. It does this by providing beauty therapy training and skills to victims of abject poverty and those who have been affected by sickness and war, helping them to gain employment or set up their own businesses. It is mainly funded by corporate sponsorship and fund-raising campaigns and more information can be found on

www.borntobebeautiful.org

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www.creative-developments.co.uk