

“Sharpening the Saw” – Staying Fresh in the Field of Formulation Science

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Agenda

- Introduction
- K-C Formulation Science Team
- The Problem
- The Solution
 - Explore
 - Talk
 - Learn – Study
 - Learn – Do
 - Teach
- Summary

Who am I?

- Associate's Degree in Business
- B.S. in Microbiology, Chemistry Minor
- Cosmetic Chemist for 6 years – all with Kimberly-Clark
- Husband and Father
- Brew beer, remodel our house and play guitar in my spare time



Who is Scott?

- B.S. in Biology, Chemistry Minor
- Cosmetic Chemist for 16 years
- Member of SCC since 1995
 - 3 Chapters, various positions
- Husband and Father
- Hunt, fish, sports, chase my kids and wife around



K-C Formulation Science

- Large group of formulators in various locations
- Backgrounds vary
 - Degrees, years of education
 - Industry experience (0-16 years)



K-C Formulation Science

- All at maximum capacity -> working on 1-6 projects at a time
- Experts tend be utilized exclusively for extended periods of time (i.e. wipes)



The problem

- Companies have limited resources (people, money)
- People have limited time to:
 - Explore – chemistry, approach
 - Talk to each other and learn from experience
 - Learn by Studying
 - Learn by Doing
 - Teach

EXPLORE - “Blue Sky” Friday

- One day blocked off a month on everyone’s calendars
- Formulators are encouraged to make new-to-the-world or new-to-them formulations
- Formulations are captured in a master file
- Pizza is provided for lunch by the corporation for participation

TALK - Formulation Meeting

- Happens during “Blue Sky” Friday
- During meetings we discuss a topic relevant to the group
 - Project brainstorming
 - Technical hurdles
 - Upcoming projects, interest areas
 - Etc.

LEARN: STUDY - Paper Exercises

- Occur during formulation meetings
- Layout:
 - Teams of 2
 - Provided common ingredients, marketing copy, claims from a commercial product
 - Best guess of the INCI Declaration based on claims
 - Each team shares their answers/thinking
 - Actual INCI label is then shared with the team
 - Discuss answers vs. actual

LEARN: STUDY – Competitive Analysis

- Competitive Shopping Trips
 - At least 2X/year
- Discovery of:
 - New ingredients
 - New claims
 - Trends
 - Who's doing what

LEARN: DO – “Tear-Down” Week

- Occur bi-monthly to quarterly (4-6/year)
- Layout:
 - Random draw of teams (2-3 formulators/team) on Monday
 - At least 1 senior formulator paired with junior formulator
 - INCI Declaration, % solids, and commercial product sample provided
 - Teams prototype as they have time through the week
 - Teams talk through learning, issues, results, conclusions

LEARN: DO – “Tear-Down” Week

- Impartial judging on Friday (COA, pH, viscosity, match ingredient declaration, aesthetics, performance)
- Teams talk through learning, issues, results, conclusions
- Trophies awarded to the winning team

TEACH: Formulation Course

- Occurs once every two years
- Layout:
 - 2 days of instruction (technical and non-technical K-C employees)
 - Formulators volunteer to teach based on expertise/desire
 - Raw material classes, formulation types, claims, timing for development

TEACH: Formulation Course

- Modules and demonstrations
 - Make your own cleanser
 - Make your own emulsion
 - Surfactants
 - Emulsions and emulsifiers
 - Preservatives
 - Skin Biology
 - Product Safety/Regulatory
 - Etc.

Results

- Keep innovation pipeline fresh by setting aside one day a month to get in the lab (Blue Sky Fridays)
- Encourage teamwork and communication through formulation meetings
- Correlate chemistry and function through paper exercises and shopping trips

Results

- Expand formulating knowledge and foster healthy competition through Tear-Down Days
- Build credibility and obtain/polish presentation skills by teaching the formulation course
- Have FUN!

Questions?

- (Remember you only have 15 seconds)

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- (OK...I'll give you another 15 seconds)