



Test Method for analysis of Talc and Mineral Fibers in Cosmetics

*JIFSAN Symposium – Asbestos in Talc
Moderators
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Objective

To establish concurrence on an analytical protocol for mineral fibers in cosmetics containing talc



Show of Hands

- Geologist?
- Lab Analyst?
 - Microscopist (PLM, SEM, TEM)
 - XRD
- Medical/Biological?
- Regulators

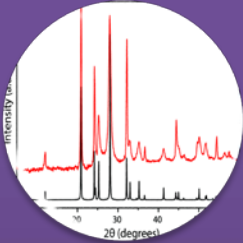


Things to consider

- Cosmetics with talc are finely milled (Fiber resolution)
- Cosmetics can have waxes and binders present, that can interfere/influence prep.
- Identification of minerals can be problematic
- Mineral habit (not assigned macroscopically, but can it be inferred?)
- Where is the cosmetic used? Lips (Ingestion) powders (Inhalation/ingestion)
- Lack of Reference standards



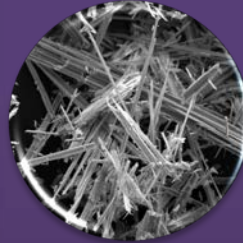
Analytical Techniques



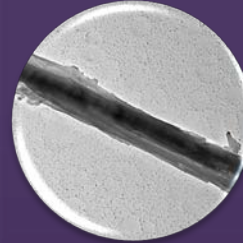
XRD



PLM



SEM



TEM



Other



Prep Options

- Homogenization
- Milling
- Sieving
- Wet/Dry
- Gravimetric Reduction
- Density Separation (ISO 22262)
- Solvent separation (Addison Davies)
- Fluidized Bed Segregator



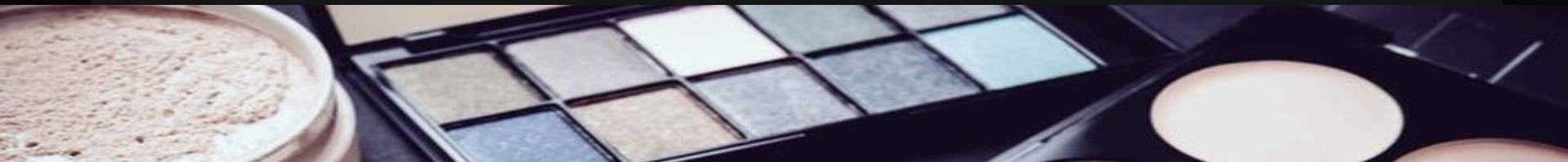
Data Recording

- What should be considered for data recording?
 - Morphology (Session B: Measurement criteria for ID and fiber counting)
 - Interpretation (Session C: Interpretation of Testing Data)



Relevant Results

- What results are needed?
 - Units? %, Qualitative, str/g, f/cc, str/cc
 - Purpose?
 - Testing for manufacturing
 - Testing for exposure
 - Testing for regulation
 - Testing for risk/litigation



Methods amenable to cosmetics

- EPA 600-R/93/116
 - Gravimetric Reduction
 - PLM/TEM (%)

