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Contract Analytical Services - Case Study

Case Study #6 **Malodor in Coated Aluminum Foil**

Internal Reference: Project Code Number A02230

Industry: Packaging

Commodity: Multi-layer coated aluminum foil

Problem/Goal: Product with undesirable odors. Some products with a fishy odor and others with floral/acidic odors.

Analytical Approach: SPME headspace collection of volatile odor compounds followed by analysis on the AromaTrax MDGC-O-MS system to identify and rank the importance of the offending odor compounds.

Findings: In one type of sample, three significant odors were identified and ranked as to their importance to the overall odor. One of the odors was correlated to client off-odor perception of the material. Acceptable material did not have this compound present at significant levels. A second type of sample had a completely different odor profile from the first. Its odor profile was dominated by floral and acidic odors that also correlated to the client perception of the material's off-odor.

Resolution: There is no feedback from the client about how this off-odor problem was finally resolved, if at all.

Comments: The power of the AromaTrax system to resolve difficult odor / flavor problems was pointed up by this study. Two 'character defining' odorants were located and isolated very quickly; resolving a long standing problem for which other approaches had failed to produce any significant findings.

Links for More Information

Aroma and malodor contract services: www.off-odor.com
Analytical Instrumentation for Aroma Analysis: www.mdgc.com



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