

## **VOLATILE ANALYSIS**

## 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 offodor 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.volatileanalysis.com Analytical instrumentation for aroma/malodor analysis: www.mdgc.com

> Volatile Analysis 29750 US HWY 431 Grant, AL 35747 USA PH: (256) 486-3531 Email: info@volatileanalysis.com

