

Concentration Analysis of Antiperspirant Flavor Components - Using HandyTD Portable Thermal Desorber and MonoTrap Simplified Enrichment Tools

The flavor components of liquid antiperspirants were screened and analyzed using HandyTD and MonoTrap RGPS TD a simplified enrichment tool. HandyTD is a compact, portable, and easy-to-operate thermal desorption device. After sample collection, set the MonoTrap in a glass liner and introduce the heat-desorbed components into a GC inlet. Terpenes and other substances that confer refreshment were detected.

Preliminary processing procedure

Liquid antiperspirant

Place 500 μ L of sample in a 40 mL vialCollection (HS)
One MonoTrap RGPS TD

15 min at room temperature

TD/GC/MS

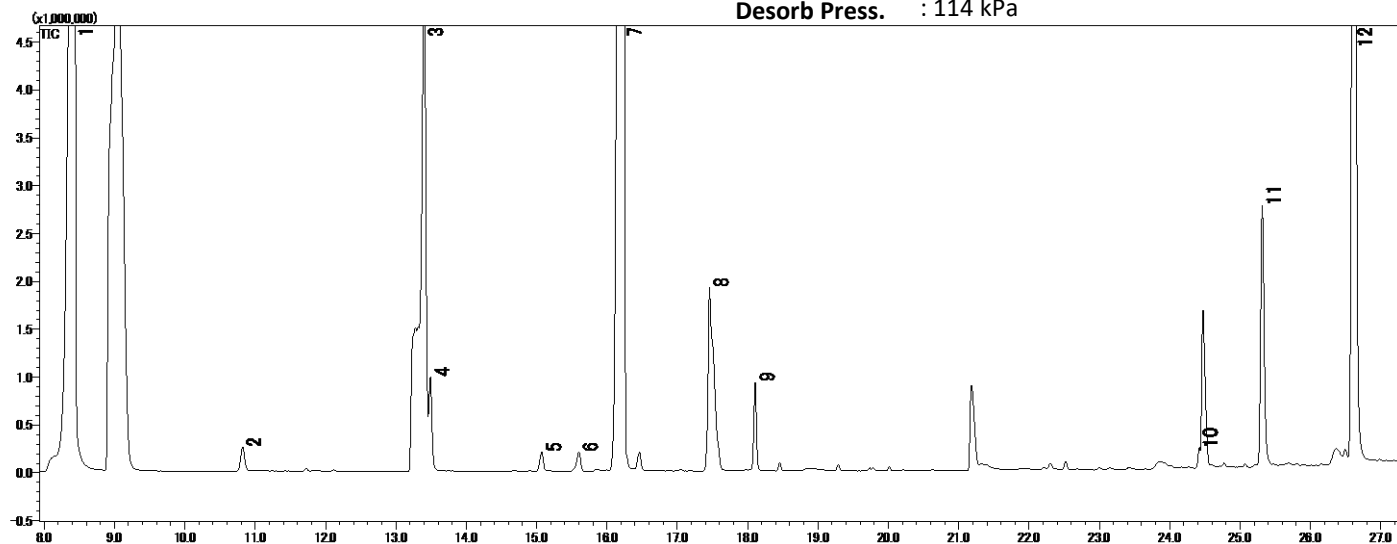


GC Conditions

System	: Thermal Desorption-GC/MS (HandyTD TD265)
Column	: InertCap Pure-WAX 0.32 mm I.D. x 60 m, df = 0.50 μ m
Col. Cat. No.	: 1010-68264
Col.Temp.	: 40 °C(5 min) - 6 °C/min - 250 °C
Carrier Gas	: He, 2.0 mL/min
GC Inlet	: 250 °C, Split 9:1
Detection	: MS Scan (m/z 45-450)

HandyTD Conditions

Desorb Temp.	: 40 °C - 45 °C/sec - 250 °C (1.5 min)
Desorb Press.	: 114 kPa



* Standard samples are not used for qualitative analysis. Results from a library search.

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|------------|--------------------------|-----------------|
| 1. Ethanol | 5. Myrcene | 9. Cymene |
| 2. Pinene | 6. Terpinolene | 10. Linalool |
| 3. Pinene | 7. Limonene | 11. Isopulegol |
| 4. Pinene | 8. Terpinyl methyl ether | 12. Levomenthol |

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