

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

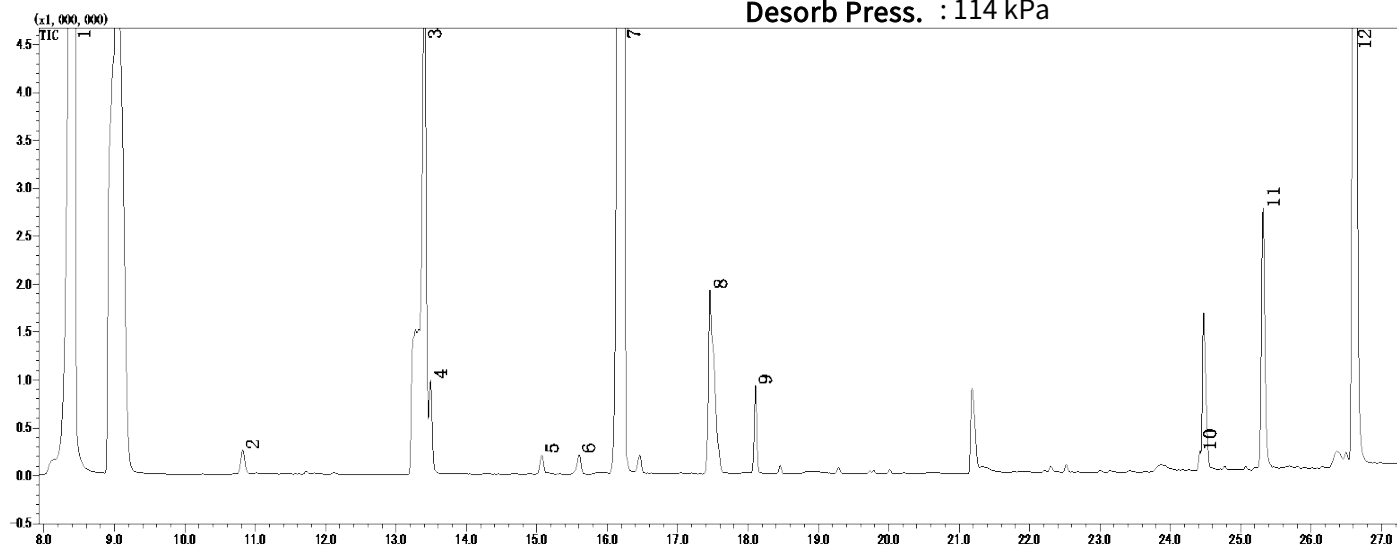


GC Conditions

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.

1. Ethanol
2. Pinene
3. Pinene
4. Pinene

5. Myrcene
6. Terpinolene
7. Limonene
8. Terpinyl methyl ether

9. Cymene
10. Linalool
11. Isopulegol
12. Levomenthol

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