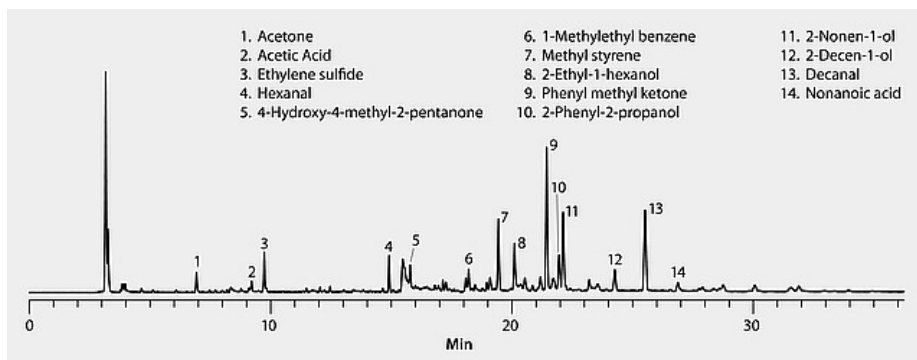


GC Analysis of Volatiles in PVC Pipe on SPB®-HAP after Collection/Desorption using Carbotrap® 300 Tube



Conditions

| | |
|---------------------------|--|
| sample/matrix | (1g PVC pipe Schedule 40) |
| dry purge | 60 min |
| thermal desorption tube | Carbotrap® 300 Glass-Fritted Thermal Desorption Tube, 1/4 in O.D. x 3.5 in L (30141-U) |
| desorption process | 350 °C with 10 min hold |
| column | SPB®-HAP, 60 m x 0.32 mm I.D., 4 µm (25020-U) |
| oven | 40 °C (3 min), 12 °C/min to 200 °C (20 min) |
| carrier gas | helium |
| transfer line/valve temp. | 180 °C |
| detector | MSD |
| MSD interface | 210 °C |
























Description


| | |
|-------------------|---|
| Analysis Note | Qualitative volatile headspace outgassing of PVC pipe using the ATIS with analysis by thermal desorption. |
| Categories | Analytical Chromatography, GC Applications, Air Monitoring Applications, Volatiles |
| Featured Industry | Environmental Industrial Hygiene |
| Legal Information | SPB is a registered trademark of Sigma-Aldrich Co. LLC, Carbotrap is a registered trademark of Sigma-Aldrich Co. LLC |
| Other Notes | Complementary products: Syringes Vials Gas Purification and Gas Management Inlet Liners, Glass Wool, and Specialized Hand Tools Septa and Specialized Hand Tools Column Ferrules, Nuts, and Specialized Hand Tools |
| suitability | application for air monitoring, application for GC |

Analyte

- 2-ethyl-1-hexanol
- 2-Nonen-1-ol
- 2-Phenyl-2-propanol
- 4-Hydroxy-4-methyl-2-pentanone
- Acetic acid
- Acetone
- Cumene
- Decanal
- Ethylene sulfide
- Hexanal
- Methylstyrene
- Nonanoic acid
- Phenyl methyl ketone

Materials

| Product # | Image | Description |
|-----------|---|--|
| 71251 |  | Acetic acid analytical standard |
| 90872 |  | Acetone analytical standard |
| PHR1219 |  | Acetone Pharmaceutical Secondary Standard; Certified Reference Material |
| 48358 |  | Acetone solution certified reference material, 2000 µg/mL in methanol: water (9:1) |
| 30141-U |  | Carbotrap® 300 glass TD tube, fritted, O.D. × L 1/4 in. × 3 1/2 in., unconditioned, pkg of 10 ea |
| 28220 |  | Cumene analytical standard |
| 36698 |  | Cumene PESTANAL®, analytical standard |
| 40669 | | Cumene solution certified reference material, 5000 µg/mL in methanol |
| D7384 |  | Decanal ≥98% (GC), liquid |
| W236209 |  | Decanal FCC, FG |
| 59581 |  | Decanal analytical standard |
| PHR1916 |  | Diacetone Alcohol Pharmaceutical Secondary Standard; Certified Reference Material |
| 128252 |  | Ethylene sulfide 98% |
| 538051 |  | 2-Ethyl-1-hexanol ≥99.6% |
| 08607 |  | 2-Ethyl-1-hexanol analytical standard |
| 1265526 |  | 2-Ethylhexan-1-ol United States Pharmacopeia (USP) Reference Standard |
| 1005706 |  | Glacial acetic acid United States Pharmacopeia (USP) Reference Standard |
| PHR1748 |  | Glacial Acetic Acid Pharmaceutical Secondary Standard; Certified Reference Material |
| W255718 |  | Hexanal ≥97%, FCC, FG |
| 115606 |  | Hexanal 98% |
| 18109 |  | Hexanal analytical standard |
| H41544 |  | 4-Hydroxy-4-methyl-2-pentanone 99% |
| 78891 |  | 4-Hydroxy-4-methyl-2-pentanone analytical standard |
| 73982 |  | Nonanoic acid analytical standard |

| Product # | Image | Description | |
|-----------|---|--------------------|--|
| N5502 |  | Nonanoic acid ≥97% | |
| N29902 |  | Nonanoic acid 96% | |