Extended Data Table 2.

**Identification of volatile components from field and laboratory volatile collection.** Compounds were tentatively identified by matching their mass spectra with those found in MS Libraries (NIST11 and Wiley). The identification was verified by synthetic standards (Compound (standard)) and matching Kovats retention indices (Compound (RI)) found in literature ( for DB-WAX and HP-5 capillary columns.

| **Chemical group** | **Compound**  **(standard)** | **Compound**  **(RI)** | **CAS** | **DB-WAX RI**  **(calc)** | **DB-WAX**  **RI**  **(lib)** | **DB-WAX**  **ΔRI** | **HP-5 RI**  **(cal)** | **HP-5 RI**  **(lib)** | **HP-5 ΔRI** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| reference compound | nonane | nonane | 111-84-2 | 900 | 900 | 0 | 900 | 900 | 0 |
| acetate ester | isobutyl acetate | isobutyl acetate | 110-19-0 | 995 | 1002 | -7 | - | - | - |
| acetate ester | isoamyl acetate | isoamyl acetate | 123-92-2 | 1114 | 1126 | -12 | 880 | 876 | 4 |
| acetate ester | (*Z*)-3-hexenyl Acetate | (*Z*)-3-hexenyl Acetate | 3681-71-8 | 1316 | 1320 | -4 | - | - | - |
| acetate ester | (*Z*)-2-hexenyl acetate | (*Z*)-2-hexenyl acetate | 56922-75-9 | 1332 | 1319 | 13 | - | - | - |
| primary alcohol | 1-propanol | 1-propanol | 71-23-8 | 1026 | 1035 | -9 | - | - | - |
| primary alcohol | 1-butanol | 1-butanol | 71-36-3 | 1122 | 1136 | -14 | - | - | - |
| primary alcohol | (*Z*)-3-hexen-1-ol | (*Z*)-3-hexen-1-ol | 928-96-1 | 1382 | 1387 | -5 | - | - | - |
| secondary alcohol | 3-hexanol | 3-hexanol | 623-37-0 | 1189 | 1189 | 0 | - | - | - |
| secondary alcohol | 3-octanol | 3-octanol | 589-98-0 | 1388 | 1396 | -8 | - | - | - |
| dialkyl ketone | 3-hexanone | 3-hexanone | 589-38-8 | 1044 | 1042 | 2 | - | - | - |
| dialkyl ketone | 2-heptanone | 2-heptanone | 110-43-0 | 1185 | 1184 | 1 | - | - | - |
| dialkyl ketone | 3-octanone | 3-octanone | 106-68-3 | 1262 | 1248 | 14 | - | - | - |
| methyl ketone | 6-methyl-5-heptene-2-one | 6-methyl-5-heptene-2-one | 110-93-0 | 1332 | 1341 | -9 | - | - | - |
| aliphatic aldehyde | (*E*)-2-hexenal | (*E*)-2-hexenal | 6728-26-3 | 1224 | 1218 | 6 | - | - | - |
| aliphatic aldehyde | octanal | octanal | 124-13-0 | 1280 | 1287 | -7 | - | - | - |
| saturated fatty aldehyde | nonanal | nonanal | 124-19-6 | 1398 | 1396 | 2 | - | - | - |
| saturated fatty aldehyde | decanal | decanal | 112-31-2 | 1490 | 1498 | -8 | - | - | - |
| monocarboxylic acid | acetic acid | acetic acid | 64-19-7 | 1410 | 1410 | 0 | - | - | - |
| monocarboxylic acid | butanoic acid | butanoic acid | 107-92-6 | 1614 | 1612 | 2 | - | - | - |
| monocarboxylic acid | pivalic acid | pivalic acid | 75-98-9 | 1566 | 1579 | -13 | - | - | - |
| aromatic hydrocarbon | toluene | toluene | 108-88-3 | 1027 | 1037 | -10 | - | - | - |
| aromatic hydrocarbon | styrene | styrene | 100-42-5 | 1254 | 1254 | 0 | - | - | - |
| benzaldehyde | benzaldehyde | benzaldehyde | 100-52-7 | 1537 | 1528 | 9 | - | - | - |
| benzoate ester | methyl salicylate | methyl salicylate | 119-36-8 | 1783 | 1778 | 5 | - | - | - |
| monoterpene | (*E*)-alloocimene | (*E*)-alloocimene | 14947-20-7 | 1404 | 1396 | 8 | - | - | - |
| monoterpene | 3-carene | 3-carene | 13466-78-9 | 1148 | 1142 | 6 | - | - | - |
| monoterpene | p-cymene | p-cymene | 99-87-6 | 1277 | 1265 | 12 | - | - | - |
| monoterpene | (*E*)-4,8-dimethylnona-1,3,7-triene | (*E*)-4,8-dimethylnona-1,3,7-triene | 19945-61-0 | 1303 | 1302 | 1 | 1103 | 1110 | -7 |
| monoterpene | limonene | limonene | 138-86-3 | 1211 | 1200 | 11 | - | - | - |
| monoterpenoid | linalool | linalool | 78-70-6 | 1531 | 1540 | -9 | - | - | - |
| monoterpene | *β*-myrcene | *β*-myrcene | 123-35-3 | 1166 | 1165 | 1 | - | - | - |
| monoterpene | (*E*)-*β*-ocimene | (*E*)-*β*-ocimene | 3779-61-1 | 1251 | 1250 | 1 | 1055 | 1051 | 4 |
| monoterpene | (*Z*)-*β*-ocimene | (*Z*)-*β*-ocimene | 3338-55-4 | 1233 | 1234 | -1 | 1045 | 1040 | 5 |
| monoterpene | *α*-pinene | *α*-pinene | 80-56-8 | 1015 | 1015 | 0 | - | - | - |
| monoterpene | *γ*-terpinene | *γ*-terpinene | 99-85-4 | 1242 | 1250 | -8 | - | - | - |
| monoterpene | monoterp1 | *β*-pinene | 127-91-3 | 1161 | 1136 | 25 | - | - | - |
| monoterpenoid | monoterp2 | monoterp2 | - | 1164 | - | - | - | - | - |
| monoterpenoid | monoterp3 | monoterp3 | - | 1230 | - | - | - | - | - |
| monoterpenoid | monoterp4 | monoterp4 | - | 1252 | - | - | - | - | - |
| monoterpenoid | monoterp5 | (*Z*)-4,8-dimethylnona-1,3,7-triene | - | 1262 | 1274 | -12 | 1123 | 1110 | 13 |
| monoterpenoid | monoterp6 | monoterp6 | - | 1272 | - | - | - | - | - |
| monoterpenoid | monoterp7 | monoterp7 | - | 1277 | - | - | - | - | - |
| monoterpenoid | monoterp8 | monoterp8 | - | 1297 |  | - | - | - | - |
| monoterpenoid | monoterp9 | monoterp9 | - | 1305 | - | - | - | - | - |
| monoterpenoid | monoterp10 | monoterp10 | - | 1306 | - | - | - | - | - |
| monoterpenoid | monoterp11 | monoterp11 | - | 1308 | - | - | - | - | - |
| monoterpenoid | monoterp12 | monoterp12 | - | 1315 | - | - | - | - | - |
| monoterpenoid | monoterp13 | monoterp13 | - | 1371 | - | - | - | - | - |
| monoterpenoid | monoterp14 | (4*E*,6*Z*)-allo-ocimene | 7216-56-0 | 1376 | - | - | - | - | - |
| monoterpenoid | monoterp15 | monoterp15 | - | 1399 | - | - | - | - | - |
| monoterpenoid | monoterp16 | monoterp16 | - | 1405 | - | - | - | - | - |
| sesquiterpene | *β*-bisabolene | *β*-bisabolene | 495-61-4 | 1740 | 1727 | 13 | 1528 | 1517 | 11 |
| sesquiterpene | *β*-caryophyllene | *β*-caryophyllene | 87-44-5 | 1619 | 1604 | 15 | 1448 | 1444 | 4 |
| sesquiterpene | (*E*)-*β*-farnesene | (*E*)-*β*-farnesene | 18794-84-8 | 1668 | 1665 | 3 | 1467 | 1456 | 11 |
| sesquiterpene | germacrene D | germacrene D | 23986-74-5 | 1744 | 1746 | -2 | - | - | - |
| sesquiterpene | *α*-humulene | *α*-humulene | 6753-98-6 | 1699 | 1690 | 9 | 1483 | 1477 | 6 |
| sesquiterpenoid | sesquiterp1 | sesquiterp1 | - | 1493 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp2 | sesquiterp2 | - | 1498 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp3 | cyclosativene | 22469-52-9 | 1500 | 1490 | 10 | - | - | - |
| sesquiterpenoid | sesquiterp4 | *α*-copaene | 3856-25-5 | 1503 | 1497 | 6 | - | - | - |
| sesquiterpenoid | sesquiterp5 | ylangene | 14912-44-8 | 1523 | 1499 | 24 | - | - | - |
| sesquiterpenoid | sesquiterp6 | 7-epi-sesquithujene | 159407-35-9 | 1533 | - | - | 1405 | 1391 | 14 |
| sesquiterpenoid | sesquiterp7 | (*Z*)-*α*-bergamotene | 18252-46-5 | 1547 | 1555 | -8 | 1420 | 1418 | 2 |
| sesquiterpenoid | sesquiterp8 | *α*-cedrene | 469-61-4 | 1552 | 1565 | -13 | - | - | - |
| sesquiterpenoid | sesquiterp9 | sesquiterp9 | - | 1561 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp10 | (*E*)-*α*-bergamotene | 13474-59-4 | 1566 | 1573 | -7 | 1434 | 1439 | -5 |
| sesquiterpenoid | sesquiterp11 | sesquiterp11 | - | 1588 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp12 | *α*-santalene | 512-61-8 | 1591 | 1597 | -6 | 1441 | 1427 | 14 |
| sesquiterpenoid | sesquiterp13 | sesquiterp13 | - | 1594 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp14 | sesquiterp14 | 17699-05-7 | 1607 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp15 | sesquiterp15 | - | 1648 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp16 | (*Z*)-*β*-farnesene | 28973-97-9 | 1653 | 1652 | 1 | - | - | - |
| sesquiterpenoid | sesquiterp17 | *α*-himachalene | 3853-83-6 | 1657 | 1649 | 8 | - | - | - |
| sesquiterpenoid | sesquiterp18 | sesquiterp18 | - | 1658 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp19 | sesquiterp19 | - | 1665 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp20 | sesquiterp20 | - | 1678 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp21 | *γ*-curcumene | 28976-68-3 | 1704 | 1695 | 9 | - | - | - |
| sesquiterpenoid | sesquiterp22 | sesquiterp22 | - | 1705 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp23 | sesquiterp23 | - | 1717 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp24 | *β*-curcumene | 28976-67-2 | 1753 | 1744 | 9 | 1497 | 1492 | 5 |
| sesquiterpenoid | sesquiterp25 | sesquiterp25 | - | 1768 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp26 | *α*-curcumene | 644-30-4 | 1784 | 1773 | 11 | - | - | - |
| sesquiterpenoid | sesquiterp27 | sesquiterp27 | - | - | - | - | - | - | - |
| sesquiterpenoid | sesquiterp28 | (*E,E*)-4,8,12-trimethyltrideca-1,3,7,11-tetraene | 62235-06-7 | 1809 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp29 | cadine-1,4-diene | 16728-99-7 | 1816 | 1802 | 14 | - | - | - |
| sesquiterpenoid | sesquiterp30 | 14-hydroxycaryophyllene | 50277-33-3 | 1972 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp31 | *β*-santalol | 77-42-9 | 2020 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp32 | *β*-caryophyllene oxide | 1139-30-6 | 2023 | 2013 | 10 | 1617 | 1607 | 10 |
| sesquiterpenoid | sesquiterp33 | sesquiterp33 | - | 2036 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp34 | sesquiterp34 | - | 2075 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp35 | sesquiterp35 | - | 2139 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp36 | (*E*)-*α*-bergamotol | 88034-74-6 | 2175 | - | - | - | - | - |
| sesquiterpenoid | sesquiterp37 | sesquiterp37 | - | 2269 | - | - | - | - | - |
| unknown | comp1 | butyl acetate | 123-86-4 | 1054 | 1059 | -5 | - | - | - |
| unknown | comp2 | 1-methoxy-2-propanol | 107-98-2 | 1114 | 1135 | -21 | - | - | - |
| unknown | comp3 | butyl acrylate | 141-32-2 | 1163 | - | - | - | - | - |
| unknown | comp4 | comp4 | - | 1183 | - | - | - | - | - |
| unknown | comp5 | butyl butanoate | 109-21-7 | 1213 | 1221 | -8 | - | - | - |
| unknown | comp6 | 5-hepten-2-one | 6714-00-7 | 1253 | 1249 | 4 | - | - | - |
| unknown | comp7 | 2-heptanol | 543-49-7 | 1316 | 1315 | 1 | - | - | - |
| unknown | comp8 | 2,2,6-trimethyl-cyclohexanone | 2408-37-9 | 1333 | 1335 | -2 | - | - | - |
| unknown | comp9 | anisole | 100-66-3 | 1344 | 1340 | 4 | 923 | 918 | 5 |
| unknown | comp10 | 2-ethyl-hexyl acetate | 103-09-3 | 1380 | - | - | - | - | - |
| unknown | comp11 | 4--methyl-3-heptanol | 14979-39-6 | 1393 | - | - | - | - | - |
| unknown | comp12 | comp12 | - | 1399 | - | - | - | - | - |
| unknown | comp13 | nonan-4-yl acetate | 5990-73-8 | 1414 | - | - | 1210 | 1206 | - |
| unknown | comp14 | comp14 | - | 1442 | - | - | - | - | - |
| unknown | comp15 | comp15 | - | 1450 | - | - | - | - | - |
| unknown | comp16 | comp16 | - | 1569 | - | - | - | - | - |
| unknown | comp17 | comp17 | - | 1580 | - | - | - | - | - |
| unknown | comp18 | comp18 | - | 1619 | - | - | - | - | - |
| unknown | comp19 | comp19 | - | 1711 | - | - | - | - | - |
| unknown | comp20 | comp20 | 7380-78-1 | 1754 | - | - | - | - | - |