**Supplementary Material**

**Table S1.** Overview of studied VOCs and VVOCs (μg/m³), by quantile of compliance with guideline values.

| Category | Compound (μg/m³) | n | GM | GSD | min | p10 | p25 | p50 | p75 | p90 | Max | Ref. Value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50th percentile | | | | | | | | | | | | |
| Other VOCs | methylisothiazolinone | 232.0 | 1.2 | 2.2 | 0.5 | 0.5 | 0.5 | 1.0 | 2.0 | 4.0 | 9.5 | <1.00 |
| 75th percentile | | | | | | | | | | | | |
| Acyclic aliphatic aldehydes | formaldehyde | 345.0 | 11.9 | 6.1 | 0.5 | 0.5 | 8.6 | 24.9 | 40.1 | 55.5 | 368.8 | 30.0 |
| Aromatic hydrocarbons | benzene | 369.0 | 2.7 | 2.2 | 0.2 | 1.0 | 1.5 | 2.5 | 4.0 | 8.0 | 37.0 | 3.0 |
| Terpenes | limonene | 370.0 | 10.3 | 4.3 | 0.2 | 1.0 | 4.5 | 10.0 | 26.2 | 81.7 | 605.0 | 23.0 |
| | pinene, β- | 370.0 | 3.8 | 5.0 | 0.1 | 1.0 | 1.5 | 4.0 | 10.0 | 29.4 | 626.0 | 8.7 |
| 90th percentile | | | | | | | | | | | | |
| Acyclic aliphatic aldehydes | acetaldehyde | 338.0 | 9.9 | 6.3 | 0.5 | 0.5 | 4.7 | 17.7 | 32.1 | 57.1 | 342.8 | 54.0 |
| | nonanal | 321.0 | 2.8 | 5.3 | 0.5 | 0.5 | 0.5 | 7.2 | 13.4 | 19.0 | 32.6 | 19.0 |
| Aliphatic hydrocarbons | hexane, n- | 370.0 | 2.5 | 3.6 | 0.2 | 0.3 | 1.0 | 2.5 | 5.0 | 15.9 | 941.5 | 8.0 |
| | heptane, n- | 370.0 | 2.7 | 2.8 | 0.2 | 1.0 | 1.0 | 2.0 | 5.0 | 9.5 | 130.5 | 9.0 |
| | octane, n- | 370.0 | 2.2 | 3.0 | 0.2 | 1.0 | 1.0 | 1.6 | 4.1 | 10.0 | 102.0 | 5.0 |
| | nonane, n- | 370.0 | 2.2 | 3.7 | 0.2 | 0.5 | 1.0 | 1.5 | 4.5 | 16.3 | 251.5 | 5.0 |
| | decane, n- | 370.0 | 2.1 | 4.1 | 0.2 | 0.2 | 1.0 | 1.5 | 5.5 | 15.5 | 334.5 | 11.0 |
| | undecane, n- | 370.0 | 2.0 | 4.5 | 0.1 | 0.1 | 1.0 | 1.6 | 5.5 | 14.0 | 180.0 | 14.0 |
| Aromatic hydrocarbons | ethyl-benzene | 370.0 | 2.1 | 3.2 | 0.2 | 1.0 | 1.0 | 1.5 | 3.0 | 14.1 | 100.5 | 10.0 |
| | propyl-benzene, n | 370.0 | 0.8 | 4.1 | 0.1 | 0.1 | 0.5 | 1.0 | 1.5 | 6.0 | 42.0 | 2.1 |
| | naphthalene | 370.0 | 0.6 | 3.1 | 0.1 | 0.1 | 0.1 | 1.0 | 1.0 | 1.5 | 18.0 | 1.2 |
| | toluene | 370.0 | 8.7 | 3.7 | 0.2 | 2.0 | 3.0 | 7.0 | 19.6 | 67.5 | 340.5 | 30.0 |
| | trimethylbenzene, 1,2,3- | 370.0 | 0.9 | 4.0 | 0.1 | 0.1 | 0.5 | 1.0 | 1.5 | 5.0 | 38.0 | 2.6 |
| | trimethylbenzene, 1,2,4- | 370.0 | 2.9 | 3.7 | 0.2 | 1.0 | 1.0 | 2.0 | 5.5 | 22.4 | 182.6 | 11.0 |
| | trimethylbenzene, 1,3,5- | 370.0 | 0.8 | 4.2 | 0.1 | 0.1 | 0.5 | 1.0 | 1.5 | 6.0 | 53.3 | 3.0 |
| | xylene, m- | 370.0 | 3.8 | 3.9 | 0.2 | 1.0 | 1.5 | 2.5 | 7.0 | 33.8 | 269.0 | 29.0 |
| | xylene, o- | 370.0 | 2.2 | 3.6 | 0.2 | 1.0 | 1.0 | 1.5 | 3.5 | 16.7 | 154.3 | 9.0 |
| Esters of alcohols | phenoxyethanol | 232.0 | 2.0 | 2.9 | 0.5 | 0.5 | 0.5 | 2.0 | 4.9 | 8.0 | 19.5 | 5.0 |
| Halocarbons | dichlorobenzene, 1,4- | 370.0 | 0.3 | 1.9 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 1.0 | 30.0 | <1.00 |
| | perchlorethylene | 370.0 | 0.2 | 3.9 | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 | 1.0 | 464.5 | <1.00 |
| Maximum value | | | | | | | | | | | | |
| Acyclic aliphatic aldehydes | propanal | 284.0 | 0.7 | 2.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 241.7 | 14.0 |
| | butanal | 282.0 | 0.6 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 138.8 | 10.0 |
| | pentanal | 285.0 | 0.8 | 3.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 9.9 | 353.1 | 20.0 |
| | hexanal | 309.0 | 3.2 | 7.0 | 0.5 | 0.5 | 0.5 | 4.6 | 16.7 | 33.3 | 806.3 | 55.0 |
| | heptanal | 282.0 | 0.6 | 1.8 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 41.1 | 6.7 |
| | octanal | 282.0 | 0.6 | 1.8 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 28.1 | 8.0 |
| | decanal | 282.0 | 0.6 | 2.0 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 18.5 | 7.0 |
| Aliphatic hydrocarbons | dodecane, n- | 370.0 | 1.5 | 3.5 | 0.1 | 0.1 | 1.0 | 1.5 | 3.5 | 7.0 | 64.0 | 9.0 |
| | tridecane, n- | 370.0 | 1.1 | 2.6 | 0.2 | 0.2 | 1.0 | 1.0 | 1.5 | 3.5 | 103.0 | 5.0 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | tetradecane, n- | 370.0 | 1.4 | 2.7 | 0.2 | 0.2 | 1.0 | 1.5 | 2.5 | 3.5 | 26.5 | 4.0 |
| | styrene | 370.0 | 1.7 | 2.6 | 0.2 | 1.0 | 1.0 | 1.0 | 2.5 | 5.5 | 3872.0 | 12.0 |
| | xylene, p- | 370.0 | 1.8 | 3.3 | 0.2 | 0.5 | 1.0 | 1.0 | 3.0 | 11.5 | 119.0 | 29.0 |
| Esters of alcohols | butylacetate | 232.0 | 4.3 | 3.8 | 0.5 | 0.5 | 1.5 | 4.8 | 11.5 | 23.6 | 327.8 | 27.0 |
| | butoxyethanol | 370.0 | 1.9 | 5.7 | 0.1 | 0.1 | 1.0 | 2.0 | 4.5 | 11.0 | 5916.5 | 13.0 |
| | butoxyethoxyethanol | 370.0 | 1.5 | 3.1 | 0.2 | 0.2 | 1.0 | 1.5 | 3.0 | 6.5 | 25.5 | 8.0 |
| Halocarbons | trichloroethylene | 370.0 | 0.3 | 1.5 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 5.0 | <1.00 |
| Ketones | butanone | 184.0 | 0.7 | 3.2 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 8.8 | 58.6 | 33.0 |
| Other aldehydes | crotonaldehyde | 179.0 | 0.5 | 1.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 34.4 | <2.00 |
| | methacrolein | 179.0 | 0.5 | 1.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 13.6 | <3.00 |
| | benzaldehyde | 282.0 | 0.6 | 2.0 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 32.1 | 15.0 |
| Terpenes | carene, 3- | 370.0 | 1.7 | 4.9 | 0.1 | 0.1 | 1.0 | 1.5 | 4.5 | 15.5 | 211.5 | 26.0 |
| | pinene, $\alpha$- | 370.0 | 4.9 | 4.3 | 0.1 | 1.0 | 2.0 | 4.5 | 12.0 | 34.8 | 396.0 | 68.0 |
| No guideline value | | | | | | | | | | | | |
| Aromatic hydrocarbons | propyl-benzene, i- | 370.0 | 0.3 | 3.0 | 0.1 | 0.1 | 0.1 | 0.1 | 1.0 | 1.5 | 10.9 | – |
| Esters of alcohols | butoxypropanol | 370.0 | 2.1 | 4.6 | 0.2 | 0.2 | 1.0 | 2.0 | 7.0 | 15.0 | 262.5 | – |
| | ethoxyethoxyethanol | 370.0 | 1.6 | 3.6 | 0.1 | 0.5 | 1.0 | 1.5 | 3.5 | 7.0 | 358.5 | – |
| Other aldehydes | tolualdehyde | 282.0 | 0.5 | 1.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 20.7 | – |

VOCs: volatile organic compounds; n: number of samples; GM: geometric mean; GSD: geometric standard deviatoin; p10-p90: percentiles.

Ref. value: reference value according to the German Association of Environmental Institutes (AGÖF).