**Supplementary material**

**Table S1.** Cut-off concentrations for illicit substances analyzed in oral fluid or pooled urine samples using quantitative methods.

|  |  |  |
| --- | --- | --- |
| **Illicit substance** | **Neat oral fluid****(µg/L)a** | **Pooled urine****(µg/L)** |
|  |  |  |
|  *Cannabis* |  |  |
|  Tetrahydrocannabinol | 0.37 | n.a. |
|  Carboxy-tetrahydrocannabinol | n.a. | 0.060 |
|  *Central stimulants* |  |  |
|  Amphetamine | 15 | 0.10 |
|  Benzoylecgonine | 4.3 | 0.060 |
|  Cocaine | 1.1 | 0.060 |
|  MDMA (ecstasy) | 2.3 | 0.060 |
|  Methamphetamine | 8.9 | 0.060 |
|  *Illicit opiate* |  |  |
|  Heroin | n.a. | 0.10 |
|  6-monoacetylmorphine | 4.7 | 0.060 |
|  *Hallucinogens* |  |  |
|  LSD | 0.019 | n.a. |
|  Ketamine | 0.34 | 0.060 |
|  Salvinorin A | 3.1 | n.a. |
|  *NPSb* |  |  |
|  25B-NBOMe | n.a. | 0.10 |
|  25C-NBOMe | 0.048 | 0.10 |
|  25I-NBOMe | 0.062 | 0.10 |
|  2C-B | 0.23 | n.a. |
|  2C-I | 0.28 | n.a. |
|  3,4-dimethylcathinone | n.a. | 0.060 |
|  3,4-methylenedioxy-pyrovalerone | 0.50 | 0.060 |
|  4-fluoromethcathinone | n.a | 0.060 |
|  4-methylamphetamine | 0.54 | n.a. |
|  4-methylcathinone | n.a. | 0.060 |
|  5F-APINACA | 0.093 | n.a. |
|  5F-PB-22 | 0.091 | n.a. |
|  Alpha-PVP | 0.13 | 0.10 |
|  AM-2201 | 0.087 | n.a. |
|  Buphedrone | n.a. | 0.060 |
|  Butylone | n.a. | 0.060 |
|  Diclazepam | 0.19 | n.a. |
|  Dimethyltryptamine | 0.11 | n.a. |
|  Ethcathinone | n.a. | 0.060 |
|  Ethylone | n.a. | 0.060 |
|  Ethylphenidate | 0.15 | n.a. |
|  Etizolam | 0.22 | n.a. |
|  Flubromazepam | 0.20 | n.a. |
|  Flubromazolam | 0.22 | n.a. |

**Table S1** continued.

|  |  |  |
| --- | --- | --- |
| **Substance** | **Neat oral fluid****(µg/L)**a | **Pooled urine****(µg/L)** |
|  Mephedrone | 0.11 | 0.060 |
|  Methcathinone | n.a. | 0.060 |
|  Methedrone | n.a. | 0.060 |
|  Methiopropamine | 0.087 | n.a. |
|  Methylone | n.a. | 0.060 |
|  Naphyrone | n.a. | 0.060 |
|  Penthedrone | n.a. | 0.060 |
|  Pentylone | n.a. | 0.060 |
|  THJ-2201 | 0.087 | n.a. |
|  UR-144 | 0.075 | n.a. |

aAssuming that 0.4 mL oral fluid was collected and mixed with 0.8 mL preservative buffer.

bThe listed substances were defined as NPS in this study.
n.a.: not analyzed.