**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.