Table 4‑5. Studies of 6PPD and 6PPD‑q concentrations in roadside soil

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Location | Information | Concentration (ng/g) | Lab Instrumentation | Detection Limit |
| [New Territories and Kowloon, Hong Kong](https://pubs.acs.org/doi/10.1021/acs.est.1c07376)  (Cao et al. 2022) | In August and September 2021, researchers collected 12 samples of roadside soil on nonrainy days and analyzed them for a range of antioxidants and transformation products, including 6PPD and 6PPD‑q. 6PPD‑q is the primary quinone present in soil, comprising 75.7% of the total PPD-q detected in roadside soil samples. | The concentrations of 6PPD and 6PPD‑q in roadside soil were found to be [median (range)]:  6PPD: 309 (31.4–831) 6PPD‑q: 234 (9.50–936) | Analytical: UHPLC Triple Quadrupole Mass Spectrometry | IQL: 6PPD: 0.035 ng/mL  6PPD‑q: 0.023 ng/mL |

Notes: IQL=instrument quantification limit, ng/g=nanograms per gram, PPD-q=para-phenylenediamines-quinones, UHPLC=ultra-high–performance liquid chromatography

**References**(Marques dos Santos and Snyder 2023)

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