Table S 1 . List of dioxin, PCB and PAH analytes with molecular structures, CAS number, formulae, and supply information.

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| *Polychlorinated pisphenyls (PCBs)* | | | | | |
| **Abbreviation** | **Structure** | **Formula** | | **Number of Cl** | |
| PCB28 |  | C12H7Cl3 | | 3 | |
| PCB52 | PCB No 52 analytical standard 35693-99-3 | C12H6Cl4 | | 4 | |
| PCB101 | PCB No 101 analytical standard 37680-73-2 | C12H5Cl5 | | 5 | |
| PCB118 | CAS No : 31508-00-6 | Chemical Name : PCB 118 | Pharmaffiliates | C12H5Cl5 | | 5 | |
| PCB138 | PCB No 138 analytical standard 35065-28-2 | C12H4Cl6 | | 6 | |
| PCB153 | PCB No 153 analytical standard 35065-27-1 | C12H4Cl6 | | 6 | |
| PCB180 | PCB No 180 analytical standard 35065-29-3 | C12H3Cl7 | | 7 | |
|  | | | | | |
| Dioxin | Structure | | Cl atoms | |
| 2,3,7,8-TCDD | A picture containing clock, watch  Description automatically generated | | 4 | |
| 1,2,3,7,8-PeCDD | A picture containing clock  Description automatically generated | | 5 | |
| 1,2,3,4,7,8-HxCDD | Diagram  Description automatically generated | | 6 | |
| 1,2,3,6,7,8-HxCDD | Diagram  Description automatically generated | | 6 | |
| 1,2,3,7,8,9-HxCDD | Diagram  Description automatically generated | | 6 | |
| 1,2,3,4,6,7,8-HpCDD | Diagram  Description automatically generated | | 7 | |
| OCDD | Diagram, schematic  Description automatically generated | | 8 | |
| 2,3,7,8-TCDF | Shape, rectangle  Description automatically generated | | 4 | |
| 1,2,3,7,8-PeCDF | Diagram, rectangle  Description automatically generated | | 5 | |
| 2,3,4,7,8-PeCDF | Diagram  Description automatically generated | | 5 | |
| 1,2,3,4,7,8-HxCDF | Diagram  Description automatically generated | | 6 | |
| 1,2,3,6,7,8-HxCDF | Diagram, schematic  Description automatically generated | | 6 | |
| 1,2,3,7,8,9-HxCDF | Shape  Description automatically generated | | 6 | |
| 2,3,4,6,7,8-HxCDF | Shape  Description automatically generated | | 6 | |
| 1,2,3,4,6,7,8-HpCDF | Diagram, schematic  Description automatically generated | | 7 | |
| 1,2,3,4,7,8,9-HpCDF | Diagram, schematic  Description automatically generated | | 6 | |
| OCDF | A picture containing radar chart  Description automatically generated | | 8 | |

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| PAH | Structure | Rings | Carcinogenic |
| Naphthalene |  | 2 | No |
| Acenaphtyhlene |  | 3 | No |
| Acenaphthene |  | 3 | No |
| Fluorene |  | 3 | No |
| Phenanthrene | Phenanthrene | C14H10 - PubChem | 3 | No |
| Anthracene |  | 3 | No |
| Fluoranthene |  | 4 | No |
| Pyrene | Pyrene - Wikipedia | 4 | No |
| Benz(a)anthracene |  | 4 | Yes |
| Chrysene |  | 4 | Yes |
| Benzo(b)fluoranthene |  | 5 | Yes |
| Benzo(k)fluoranthene |  | 5 | Yes |
| Benzo(a)pyrene |  | 5 | Yes |
| Indeno(1,2,3-cd)pyrene |  | 6 | Yes |
| Benzo(ghi)perylene |  | 6 | No |
| Dibens(ah)anthracene |  | 5 | Yes |