|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Chemical** | | **Ethyl paraben** | **Methyl paraben** | **Propyl paraben** | **Molar sum of parabens** | **Bisphenol A** | **Bisphenol S** | **2,4-DCP** | **Butyl paraben** | **Triclocarban** |
|  | |  | | | | | | |  | |
| **Phylum** | **Genus** |  |  |  |  |  |  |  |  |  |
| Actinobacteria | Dermabacter |  |  | **☑** |  |  |  |  |  |  |
| Microbacterium |  |  |  |  |  |  |  |  |  |
| Propionibacteriaceae\_[G-1] |  |  |  |  |  |  |  |  |  |
| Propionibacteriaceae\_[G-2] |  |  | **☑** |  |  |  |  |  |  |
| Scardovia |  |  |  |  |  |  |  |  |  |
| Bacteroidetes | Bacteriodales [G-2] |  |  |  |  |  |  | **☑** |  |  |
| Bacteroides |  |  |  |  |  |  |  |  |  |
| Pedobacter |  |  |  |  |  |  |  |  |  |
| Tannerella |  |  | **☑** |  |  |  |  |  |  |
| Firmicutes | Anoxybacillus |  |  |  |  |  |  |  |  |  |
| Clostridiales\_[F-1][G-2] |  |  |  |  |  |  |  |  |  |
| Clostridiales\_[F-3][G-1] |  |  |  |  |  |  |  |  |  |
| Erysipelothrix |  |  |  |  |  |  |  |  |  |
| Lachnoanaerobaculum |  |  |  |  |  |  |  |  |  |
| Lachnospiraceae\_[G-7] |  |  |  |  |  |  |  |  |  |
| Lysinibacillus |  |  |  |  |  |  |  |  |  |
| Megasphaera |  |  | **☑** |  |  |  |  |  |  |
| Mitsuokella spp |  |  | **☑** |  |  |  |  |  |  |
| Mogibacterium |  |  |  |  |  |  |  |  |  |
| Paenibacillus |  |  |  |  |  |  |  |  |  |
| Peptostreptococcaceae\_[XI][G-1] |  |  |  |  |  |  |  |  |  |
| Ruminococcaceae\_[G-1] |  |  |  |  |  |  |  |  |  |
| Staphylococcus |  |  |  |  |  |  |  |  |  |
| Streptococcus |  |  |  |  | **☑** |  |  |  |  |
| Fusobacteria | Fusobacterium |  |  | **☑** |  |  |  |  |  |  |
| Leptothrix |  |  |  |  | **☑** |  |  |  |  |
| Proteobacteria | Achromobacter | **☑** |  |  |  |  |  |  |  |  |
| Eikenella |  |  | **☑** |  |  |  |  |  |  |
| Helicobacter |  |  | **☑** |  |  |  |  |  |  |
| Moraxella |  |  |  |  |  |  |  |  |  |
| Novosphingobium |  |  |  |  |  |  |  |  |  |
| Paracoccus | **☑** |  |  |  |  |  |  |  |  |
| Saccharibacteria (TM7) | Saccharibacteria (TM7) [G-3] |  |  | **☑** |  |  |  |  |  |  |
| Spirochaetes | Treponema |  |  |  |  |  |  | **☑** |  |  |
| Synergistetes | Fretibacterium |  |  |  |  |  |  | **☑** |  |  |

**Overview of the ANCOM-BC results.** Only taxa with p-value < 0.01 were presented. Chemicals with sidebar color in brown were categorized into quartiles and chemicals with sidebar color in purple were categorized into below and above the limit of detection. Check mark “**☑**”: taxon was identified to be differentially abundant in at least one quartile of the chemical; downward arrow “ ”: taxon was identified to be monotonically decreasing as the increase of the chemical concentration; upward arrow “”: taxon was identified to be monotonically increasing as the increase of the chemical concentration.