

## What's New and Different?

The *Updated Tables, January 2017*, include chemicals that have results available from the NHANES survey periods 2005-2006, 2007-2008, 2009-2010, and 2013-2014. No new 2011-2012 data were released for this *Updated Tables*. New chemicals measured for the first time include the herbicide atrazine and five of its metabolites, the insect repellent DEET and two of its metabolites, triclocarban, branched and linear isomers of both PFOS and PFOA, and six blood VOCs: 1,1,1,2-tetrachloroethane; 1,2,3-trichloropropane; 1,2-dibromoethane; furan; isopropylbenzene (cumene); and nitromethane. A new chemical group created in 2013-2014 is the Personal Care and Consumer Product Chemicals and Metabolites, which reflects the chemical uses and combines three previous groups: Environmental Phenols, Parabens, and Other Pesticide Metabolites. The chemical group previously called Perfluorinated Compounds: Surfactants has been renamed as Perfluoroalkyl and Polyfluoroalkyl Substances: Surfactants.

Chemicals with updated data in this release are

- adducts of hemoglobin (acrylamide and glycidamide);
- blood VOCs, including disinfection by-products;
- urinary PBA, benzophenone-3, triclosan, four parabens, 2,4-dichlorophenol, and 2,5-dichlorophenol;
- whole blood metals and mercury species;
- serum metals;
- urinary metals and arsenic species;
- urinary perchlorate, nitrate, and thiocyanate;
- serum perfluoroalkyl and polyfluoroalkyl substances (PFAS);
- urinary polycyclic aromatic hydrocarbon metabolites;
- serum polychlorinated dibenzo-*p*-dioxins (pooled);
- serum polychlorinated dibenzofurans (pooled);
- serum dioxin-like polychlorinated biphenyls: coplanar PCBs (pooled).

### CAS Registry Numbers (CAS Nos.)

With this *Updated Tables*, we are including CAS registry numbers in the Table of Contents placed along with the chemical name. Not all chemicals have a CAS No. assigned, and there is no number for chemicals that have values calculated from two or more species (e.g., arsenic) or isomers (e.g., PFOS, PFOA).

### Updated Tables in Two Volumes

In this release, we have expanded the *Updated Tables* to **two volumes**, each as a separate PDF. This change was made because the file size of the single PDF had become so large that it could not easily be shared or sent as an attachment. **Volume One** contains data tables for most of the chemicals measured in the U.S. general population. **Volume Two** contains data tables for the persistent organic pollutants and pesticides previously measured in individual samples and are currently measured in pooled samples. **Volume Two** also contains data tables for the special sample of adult cigarette smokers and nonsmokers, including recently released data

from NHANES 2013-2014. We anticipate that future *Updated Tables* will continue to be presented in two volumes.

### **PFOS and PFOA Results for NHANES 2013-2014**

Starting in 2013, we began measuring linear and branched isomers of both PFOS and PFOA and no longer measure total PFOS or PFOA. The isomers of each chemical represent more than 95% of what was previously reported as PFOS and PFOA. PFOS and PFOA were calculated by summing the linear and branched isomers for each participant before applying the appropriate sample weight. Because the 2013-2014 values are a calculated sum, there is no limit of detection (LOD) for PFOS and PFOA. Data tables for each of the four isomers also are presented. See [Calculation of PFOS and PFOA as the Sum of the Isomers](#) for more details. The 2013-2014 PFOS and PFOA results can be used to compare with previous measurements and to examine trends in the general U.S. population.

### **NHANES 2005-2006 Urine VOC Metabolite Data Were Withdrawn**

The NHANES 2005-2006 urine VOC metabolite data were withdrawn in January 2016 because of a systematic bias in several analytes. We have removed the data tables that were previously presented using those data. Once the data are revised and re-posted, we will again present data tables for these chemicals.

With the exception of one analyte, *t,t*-muconic acid, a metabolite of benzene, the NHANES 2011-2012 data were not affected and those data tables are included in this *Updated Tables*. The data for *t,t*-muconic acid was withdrawn for NHANES 2011-2012 because of recently identified analytical issues that could not be resolved.

### **Chemicals No Longer Being Reported**

Results for several chemicals are no longer reported in the *Updated Tables* because their concentrations have been largely undetectable in previous survey periods. These chemicals are atrazine and five atrazine metabolites (measured in 2007-2008), and two PFAS chemicals: PFOSA (also referred to as FOSA) and Et-PFOSA-AcOH (also referred to as EtFOSA).

For the information in this section, "What's New and Different," contained in previous releases of *Updated Tables*, please see the Archives from *Updated Tables* at: <http://www.cdc.gov/exposurereport/>.