Message

From: Washington, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FDC3E8CE9F1D45C4894881FF420CA104-WASHINGTON, JOHN]
Sent: 5/13/2019 12:07:29 PM
To: Post, Gloria [Gloria.Post@dep.nj.gov]; Lindstrom, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=04bf7cf26aa44ce29763fbc1c1b2338e-Lindstrom, Andrew]; Strynar, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5a9910d5b38e471497bd875fd329a20a-Strynar, Mark]; Lau, Chris [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd4494e8927a4d78a5d2b9b20c618d4e-Lau, Chris]
CC: Bergman, Erica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user69ab393b]; Goodrow, Sandra [Sandra.Goodrow@dep.nj.gov]
Subject: RE: Information on toxicity of Solvay replacement compounds CONFIDENTIAL

Gloria,

Regarding the fourth compound, I think you are correct on your interpretation of structure. I looked for a few permutations of this molecule as described below and did not find it.

1) I used soil sample 8, which was among the most concentrated on the ClPFPECA compounds we identified.
2) For these ClPFPECA compounds, the Ethyl,Propyl = 1,1 congener was among the strongest signals.
3) For the 1,1, I detect it by decarboxylating in the ESI, so Cl(CF2)3O(CF2)3O(CF2)2OCF2COOH → Cl(CF2)3O(CF2)3O(CF2)2OCF2- (532.9254)
4) I looked for 532.9254 – Cl + COOH and did not find it.
5) And looked for (532.9254-Cl)/2 (decarboxylating both termini) and did not find it.

Thanks,
John

From: Post, Gloria <Gloria.Post@dep.nj.gov>
Sent: Friday, May 10, 2019 3:11 PM
To: Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>; Strynar, Mark <Strynar.Mark@epa.gov>; Lau, Chris <Lau.Christopher@epa.gov>; Washington, John <Washington.John@epa.gov>
Cc: Bergman, Erica <erica.bergman@dep.nj.gov>; Goodrow, Sandra <Sandra.Goodrow@dep.nj.gov>
Subject: Information on toxicity of Solvay replacement compounds CONFIDENTIAL
Importance: High

Mark, Andy, John, and Chris,

Solvay recently submitted information to NJDEP about the replacement PFAS they are using at their NJ facility. Although some of it is marked as Confidential Business Information, Erica told me that it can be shared with you since it is relevant to your study of non-target PFAS in NJ.

Solvay provided four Material Safety Data Sheets (MSDSs) for replacement PFAS that they used/are using in NJ. The MSDSs indicate that acute toxicity (LD50) studies and repeated dose (28 day and 90 day) studies were conducted in rats. The toxicity information is summarized in the attached table.

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We are not aware of any data on the bioaccumulation (e.g. half-life) of the Solvay replacement PFASs in animals or humans, and data on toxicokinetics, including human and animal half-lives etc. are not shown on MSDSs. However, other PFAS with generally similar structures are known to bioaccumulate in humans, including those found in the "GenX Exposure Study" in North Carolina, and also the PFAS found in "F 53B", a replacement for PFOS in metal plating (Shi et al., 2016).

Adding to the concern about these PFAS is other information provided by Solvay showing that these four replacement PFAS were discharged to air and water, in some cases as much as several 1000 kg per year for some years.

Gloria

From: Reap, David M. <DReap@KelleyDrye.com>
Sent: Wednesday, May 01, 2019 6:07 PM
To: Post, Gloria <Gloria.Post@dep.nj.gov>
Cc: Olawski-Stiener, Joan <Joan.Olawski-Stiener@dep.nj.gov>
Subject: [EXTERNAL] Re: Toxicology information requested from Solvay

This could prove really useful, thanks for sending.

Thanks again for all your time today, I along with the rest of the special counsel team am tremendously grateful!

Sent from my iPhone

On May 1, 2019, at 6:04 PM, Post, Gloria <Gloria.Post@dep.nj.gov> wrote:

CAUTION External Email

David,

Relevant to today's discussion, this is a summary of the 2014 toxicology information requested from Solvay. We never received any of it. I also have the actual emails with Virginia Hubert of Solvay about this.

Also, the 3 studies mentioned below (Stump et al., Mertens et al., Mundt et al.) as well as the recent Graber et al. paper on the Paulsboro serum study are attached.) We do not have the 6 studies mentioned in #1. below or the WIL Laboratory study.

Thank you!

Gloria

From: Gloria Post
Sent: Thursday, September 18, 2014 5:24 PM
To: Gary Buchanan
Subject: Toxicology information requested from Solvay

As requested, I have summarized the PFNA toxicology information that was requested from Solvay but has not been provided. I have email correspondence with Virginia Hubert of Solvay about these requests.

1. Solvay said that 6 studies on PFNA and/or the Surflon S-111 PFC mixture consisting primarily of PFNA (with lower amounts of PFOA, C11, and C13) were conducted by a trade association, Society of Plastics Industry, and funded by three companies including Solvay. These studies were requested but were not provided.

2. Two toxicology studies of the Surflon S-111 mixture sponsored by Solvay and other industries have been published:

Mertens JJ, Sved DW, Marit GB, Myers NR, Stetson PL, Murphy SR, Schmit B, Shinohara M, Farr CH. Subchronic toxicity of S-111-S-WB in Sprague Dawley rats. Int J Toxicol. 2010 Jul;29(4):358-71.

Stump DG, Holson JF, Murphy SR, Farr CH, Schmit B, Shinohara M. An oral two-generation reproductive toxicity study of S-111-S-WB in rats. Reprod Toxicol. 2008 Jan;25(1):7-20.

- In these papers, the percentage of each in the test material is not stated. This information was requested from Solvay but not provided.

- In Mertens et al. (2010), the serum levels of PFNA, PFOA, C11, and C13 are presented graphically in Figures 2, 3, and 4. Due to the scale of the graph, it is not possible to estimate the values at the lower dose levels from the graphs. The numerical data for the information presented in the graphs is needed to determine the serum levels at which effects occurred. The numerical data were requested from Solvay but not provided.

- In Stump et al. (2008), data for total Surflon S-111 in serum is shown graphically (Figure 3), but information on serum levels of each PFC (PFNA, PFOA, C11, and C13) is not shown. This information, in numerical form, was requested from Solvay but not provided.

3. The study entitled "WIL Research Laboratories, LLC. Study number WIL-497002, 2006" is cited in Mundt et al. 2007. Clinical epidemiological study of employees exposed to surfactant blend containing perfluorononanoic acid. Occup. Environ. Med. 64: 589-594. Attempts to obtain the Wil Research Laboratories study from Solvay and from the sponsor of the Mundt et al. paper, Environ Corporation, were not successful.

<MertensSurflonSubchronic.pdf>

<stump et al surflon C9 oral 2 generation rat.pdf>

<Mundt 2007 Clinical_epidemiological_study_of_employees_expose.pdf>

<Graber et al. 2018.pdf>

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