Message

From: Strynar, Mark [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=5A9910D5B38E471497BD875FD329A20A-STRYNAR, MARK]
Sent: 7/31/2018 6:10:05 PM
To: Leung, Lam-Wing H [LAM.H.LEUNG-1@chemours.com]
Subject: RE: Standards and others
Attachments: 6_2 FTS vs Nafion BP2 CA.pptx

Lam,

Per our discussion I do not think you are seeing the 6:2 FTS. If you do an EIC (extracted ion chromatogram) of the monoisotopic mass of the 6:2 FTS it is +/- ~ 5 ppm of the chemical I have been calling the Nafion BP2 CA (carboxylic acid). It is a likely byproduct of an earlier acid fluoride and a HF addition across the double bond. Much like in the Nafion BP1 and BP2 story.

Unfortunately these two chemicals have a VERY similar monoisopic mass, and seem to elute at about the same time. We have seen this in our own labs work on water. However if you look at the isotopic distribution spectra you will see the 6:2 FTS and the Nafion BP2 CA have a very different peak for the M+2 (see the attached slides) due to 34S and 18O in one and only 18O in the other.

James and I have some additional data and spectra. However I think this is what you are seeing, especially if you are doing and EIC. If you do MS/MS on your QTOFMS one will give an m/z 80 (sulfonate) and one with not (perhaps an m/z 185 or so. If it is in the Chemours effluent but not in your process blank I think it is this for sure.

James can chime in as well.

Mark

From: Leung, Lam-Wing H [mailto:LAM.H.LEUNG-1@chemours.com]
Sent: Tuesday, July 31, 2018 12:27 PM
To: Strynar, Mark <Strynar.Mark@epa.gov>
Subject: RE: Standards and others

Thanks Mark, please call my cell at Personal Matters / Ex. 6 as I might be in and out of the lab.

Lam

From: Strynar, Mark [mailto:Strynar.Mark@epa.gov]
Sent: Tuesday, July 31, 2018 12:03 PM
To: Leung, Lam-Wing H <LAM.H.LEUNG-1@chemours.com>
Subject: RE: Standards and others

Hi Lam,

1. We have not seen and issue with the 6:2 FTS in our WAX method blanks. Let me call you to get specifics. However we use the Waters WAX Plus style cartridges not the 3 cc or 6 cc syringe style so it may be we don't use the same cartridge.
2. The SPE concentrator is essential a Waters piece of equipment sold in Japan. I have recently inquired as to if Waters can make these assessable to those in the US. They are working on it I am told. We got it years ago

from Waters as part of a CRADA. I think so other labs are looking to get one as well. Other companies make one similar to it but I am not sure how to get one.

I will call after some lunch.

Mark

From: Leung, Lam-Wing H [mailto:LAM.H.LEUNG-1@chemours.com]
Sent: Monday, July 30, 2018 4:35 PM
To: Strynar, Mark <Strynar.Mark@epa.gov>
Subject: RE: Standards and others

Hi Mark,

I look forward to meeting up at Boston. I just came across your latest paper in J Chrom and I have couple questions:

1. The SPE WAX cartridges you used from Waters, have you ever had any issues with contaminates from them. We recently found out that part of our WAX collections from Water had 6:2 FTS on them.
2. We are interested in setting up a pump similar to what you described in the paper (SPC10-P Sep-Pak concentrator binary pistol pump) but we cannot find any info on it. Can you please send me information such as where I can get one (or similar to it)?

Thanks,
Lam

From: Strynar, Mark [mailto:Strynar.Mark@epa.gov]
Sent: Tuesday, July 24, 2018 8:36 AM
To: Leung, Lam-Wing H <LAM.H.LEUNG-1@chemours.com>
Subject: RE: Standards and others

Hi Lam. Let's catch up for sure. I am just now starting to think about that trip to Boston. It will be here before I know it.

Mark

From: Leung, Lam-Wing H [mailto:LAM.H.LEUNG-1@chemours.com]
Sent: Friday, July 20, 2018 4:12 PM
To: Strynar, Mark <Strynar.Mark@epa.gov>
Subject: RE: Standards and others

Hi Mark,

Thanks for the message and I supposed we'll meet up at Boston ACS as I plan on being there for few days and I've noticed that you'll giving an early Sunday morning talk. Hope to see you there.

Best Regards,
Lam

From: Strynar, Mark [mailto:Strynar.Mark@epa.gov]
Sent: Friday, July 13, 2018 5:45 AM

To: Leung, Lam-Wing H <LAM.H.LEUNG-1@chemours.com>
Subject: RE: Standards and others

Hi Lam,

I have been too busy with other projects to get to this. My colleagues at NC State have been using the standards and measuring for these analytes in water. I am actually unsure when/if I will ever get to this.
Mark

From: Leung, Lam-Wing H [mailto:LAM.H.LEUNG-1@chemours.com]
Sent: Wednesday, July 11, 2018 3:40 PM
To: Strynar, Mark <Strynar.Mark@epa.gov>
Subject: RE: Standards and others

Hi Mark,

I hope things are moving along nicely with you these days and I wonder if you have a chance to "re-visit" some of the standards we sent you. Please let me know. Thanks.

Best Regards,
Lam

From: Strynar, Mark [mailto:Strynar.Mark@epa.gov]
Sent: Tuesday, May 22, 2018 10:48 AM
To: Leung, Lam-Wing H <LAM.H.LEUNG-1@chemours.com>
Subject: RE: Standards and others

Lam,

I have too much to do and not enough time to do it. I have not picked this issue back up recently. We are on to other endeavors. I hope to get back to it soon.

Mark

From: Leung, Lam-Wing H [mailto:LAM.H.LEUNG-1@chemours.com]
Sent: Monday, May 21, 2018 7:52 AM
To: Strynar, Mark <Strynar.Mark@epa.gov>
Subject: Standards and others

Hi Mark,

I hope you are doing well these days and I just want to touch base and see if you have made any progress in terms of the standards we shipped you. I also want to let you know that we have shipped "Table 3" standards to Detlef Knappe (NC State) and Jannie Shaw-Busby (Gel Lab) but I'm not sure if you have any contact with them. Anyway, I do like to learn about your findings regarding the standards we have provided to you and perhaps we can touch base and discuss if you have some time. Please let me know.

One last thing is in case you might not know, our company has a website which has provided information regarding Fayetteville Works and C3 Dimer Acid. Check it out.

https://www.chemours.com/Fayetteville-Works/en-us/c3-dimer-acid/standardized-analytical-protocol/index.html

Best Regards,
Lam

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