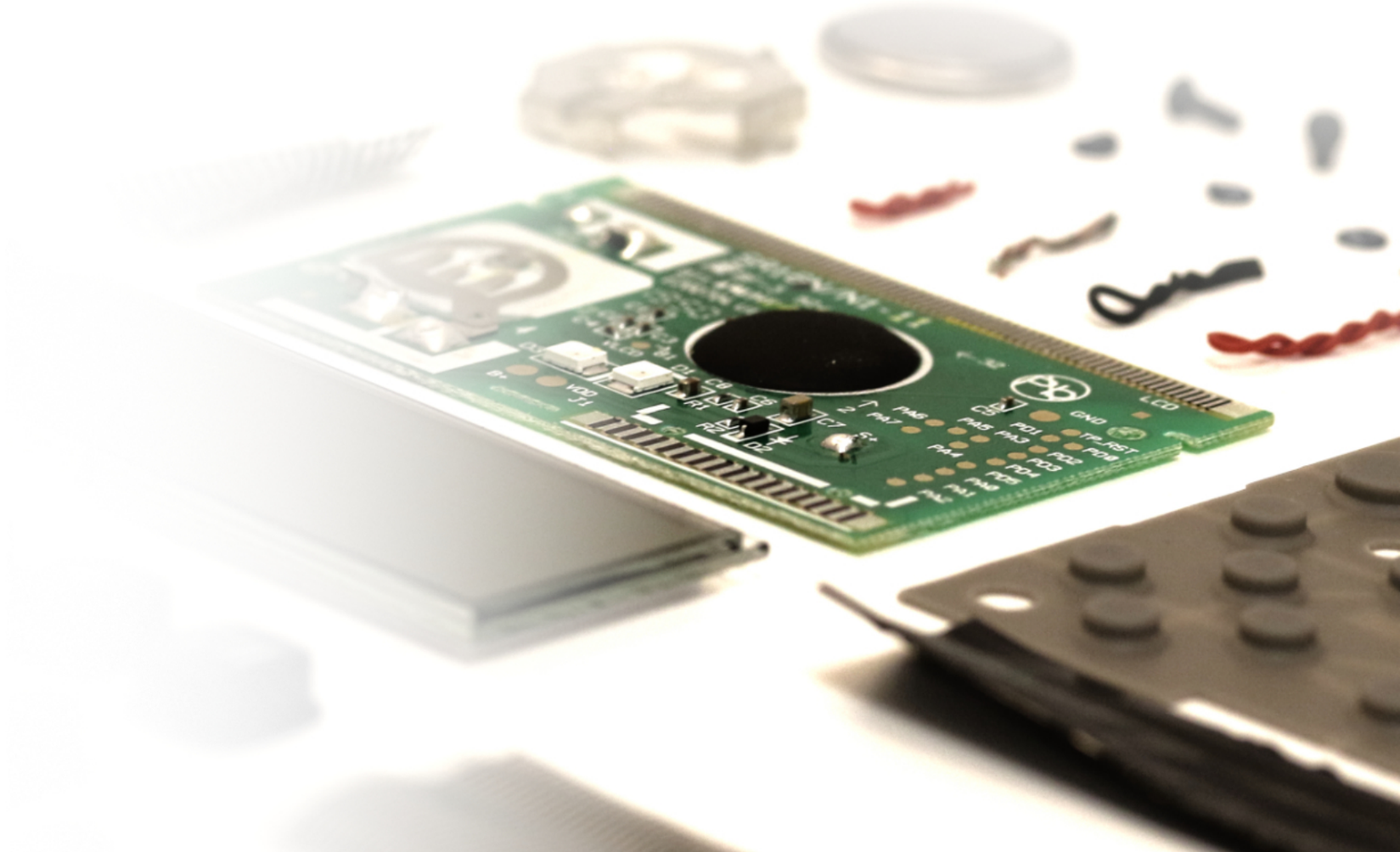
# US TSCA PFAS Reporting

*Claigan Webinar*

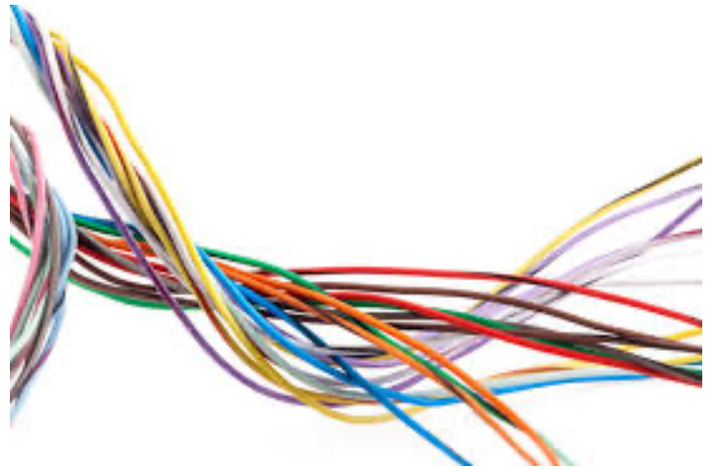
Presented by:
Bruce Calder
VP Consulting

November 8, 2023

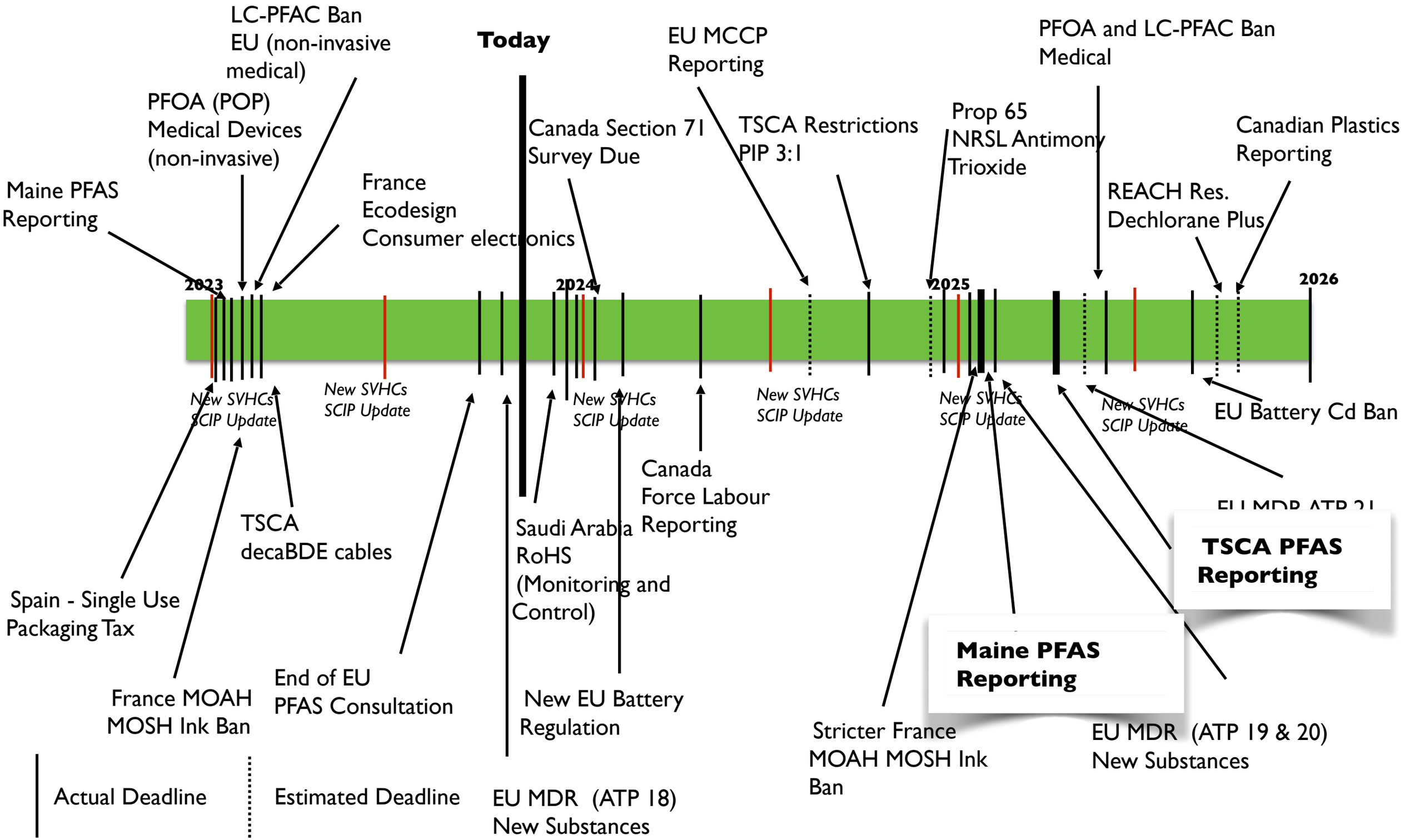


# Overview - Agenda
# US TSCA PFAS Reporting

- Upcoming deadlines
- *RoHS Exemption Formula Issue*
- Claigan PFAS Submissions
- US TSCA PFAS reporting
  - Deadlines
  - Example PFAS in products
  - Reporting requirements for articles
  - Data format
- US TSCA PFAS reporting
  - Process for reporting information
    - Federal, State, plus planning for EU
- Q&A



# Restricted Materials
# Constant Deadlines



# RoHS Exemption Formula Issue

- The EU commission exemption tracker contains formulas

- Older versions of excel cannot process that formula and makes it look like exemptions are expiring

| | | | | |
|---|---|---|---|---|
| Annex III n. 7(c)-I | 1 to 7 and 10 | 22/07/2016 | 21/07/2021 | |
| Annex III n. 7(c)-I | 8 and 9 other than in vitro and industrial | 22/07/2014 | 21/07/2021 | |
| Annex III n. 7(c)-I | 8 in vitro | 22/07/2016 | 21/07/2023 | |
| Annex III n. 7(c)-I | 9 industrial | 22/07/2017 | 21/07/2024 | |
| Annex III n. 7(c)-I | 11 other EEE | 22/07/2019 | 21/07/2024 | |

Formula error

- Correct version of excel - exemption still in renewal

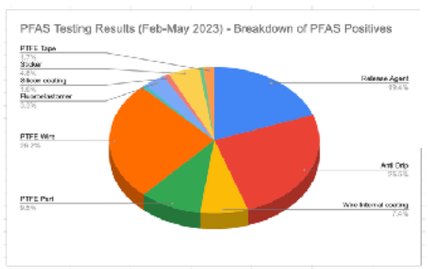
| | | | | | | |
|---|---|---|---|---|---|---|
| 6 | Annex III n. 7(b) | 8 and 9 other than in vitro and industrial | 22-07-2014 | 21-07-2021 | | No longer valid |
| 7 | Annex III n. 7(b) | 8 in vitro | 22-07-2016 | 21-07-2023 | | No longer valid |
| 8 | Annex III n. 7(b) | 9 industrial | 22-07-2017 | 21-07-2024 | | Valid - no longer renewable |
| 9 | Annex III n. 7(b) | 11 other EEE | 22-07-2019 | 21-07-2024 | | Valid - no longer renewable |
| 0 | Annex III n. 7(c)-I | 1 to 7 and 10 | 22-07-2016 | ~~21-07-2021~~ | 02-01-2020 | Valid - requested for renewal |
| 1 | Annex III n. 7(c)-I | 8 and 9 other than in vitro and industrial | 22-07-2014 | ~~21-07-2021~~ | 02-01-2020 | Valid - requested for renewal |
| 2 | Annex III n. 7(c)-I | 8 in vitro | 22-07-2016 | ~~21-07-2023~~ | 02-01-2020 | Valid - requested for renewal |
| 3 | Annex III n. 7(c)-I | 9 industrial | 22-07-2017 | ~~21-07-2024~~ | 02-01-2020 | Valid - requested for renewal |
| 4 | Annex III n. 7(c)-I | 11 other EEE | 22-07-2019 | ~~21-07-2024~~ | 09-10-2020 | Valid - requested for renewal |
| 5 | Annex III n. 7(c)-II | 1 to 7 and 10 | 22-07-2016 | ~~21-07-2021~~ | 19-12-2019 | Valid - requested for renewal |
| 6 | Annex III n. 7(c)-II | 8 and 9 other than in vitro and industrial | 22-07-2014 | ~~21-07-2021~~ | 19-12-2019 | Valid - requested for renewal |
| 7 | Annex III n. 7(c)-II | 8 in vitro | 22-07-2016 | ~~21-07-2023~~ | 19-12-2019 | Valid - requested for renewal |
| 8 | Annex III n. 7(c)-II | 9 industrial | 22-07-2017 | ~~21-07-2024~~ | 19-12-2019 | Valid - requested for renewal |
| 9 | Annex III n. 7(c)-II | 11 other EEE | 22-07-2019 | ~~21-07-2024~~ | 09-10-2020 | Valid - requested for renewal |

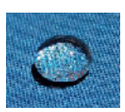
Correct formula

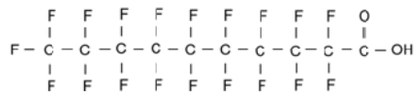
# Claigan EU PFAS Consultation Submission Project

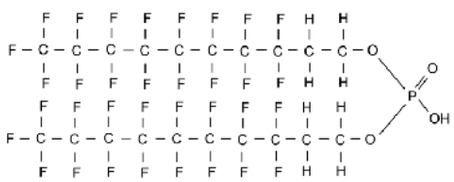
**Submissions**

- PFAS in Articles
- Sources of PFOA
- PFOA in the Environment
- Comparison of Alternatives
- Derogations Needed

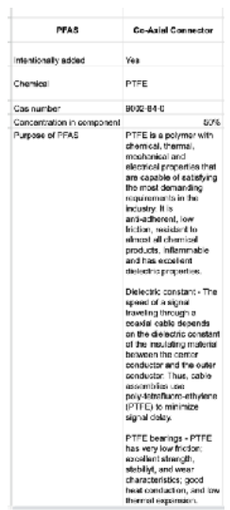






| Comparison | PTFE | PEEK | Silicone | Polyurethane | PFA | Irradiated PTFE | ePTFE | Fluoroacrylate |
|---|---|---|---|---|---|---|---|---|
| Low Friction | Excellent | Decent | Decent | Poor | Excellent | Excellent | Excellent | Excellent |
| Chemical Resistance | Excellent | Excellent | Decent | Decent | Excellent | Excellent | Excellent | Excellent |
| Water Resistance | Excellent | Excellent | Decent | Decent | Excellent | Excellent | Excellent | Excellent |
| Oil Resistance | Excellent | Excellent | Poor | Excellent | Excellent | Excellent | Excellent | Excellent |
| Temperature resistan | Excellent | Excellent | Excellent | Poor | Excellent | Excellent | Excellent | Excellent |
| Flexibility | Decent | Poor | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| Forever Chemicals | Excellent | Excellent | Poor | Excellent | Decent | Decent | Decent | Poor |
| Biocompatibility | Excellent | Excellent | Decent | Excellent | Excellent | Excellent | Excellent | Decent |



| PFAS | Co-Axial Connector |
|---|---|
| Intentionally added | Yes |
| Chemical | PTFE |
| Cas number | 9002-84-0 |
| Concentration in component | 50% |
| Purpose of PFAS | PTFE is a polymer with chemical, thermal, mechanical and electrical properties that are capable of satisfying the most demanding requirements in the industry. It is anti-adherent, low friction, resistant to almost all chemical products, inflammable and has excellent dielectric properties.<br><br>Dielectric constant - The speed of a signal traveling through a coaxial cable depends on the dielectric constant of the insulating material between the center conductor and the outer conductor. Thus, cable assemblies use poly-tetrafluoro-ethylene (PTFE) to minimize signal delay.<br><br>PTFE bearings - PTFE has very low friction; excellent strength, stability, and wear characteristics; good heat conduction, and low thermal expansion. |

>200 pages

# EU PFAS Restriction Submission Overview

- Submitted to
  - EU - Sept 21 2023
  - EPA - Oct 13 2023

- Submissions
  - #1 - PFAS in Articles
  - #2 - PFOA in Articles
  - #3 - PFAS in Drinking Water and Humans
  - #4 - Analysis of Substitutes and Alternatives
  - #5 - Derogations required by industry
    - Fifty-three (53) derogations

# US TSCA PFAS Reporting

- New reporting requirement published
  - For importation / manufacturing back to 2011

- Deadline
  - **120M in sales in US (including parent company)**
    - May 8 2025
  - **<120M in sales in US (including parent company)**
    - November 12 2025

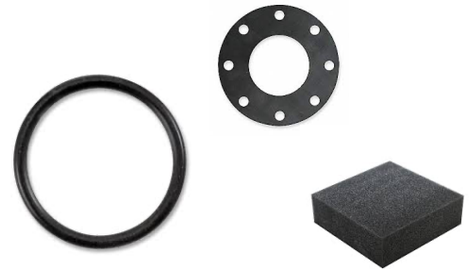
- **Excluded** (FDA regulated products)
  - Medical devices
  - Food contact materials

# Typical PFAS Sources

**Anti-Drip**
*(ABS housings)*

**Label Coating**
*(Product labels)*

**Dielectric**
*(Connectors)*



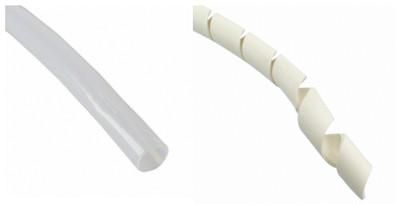
**Release agents**
*(O-rings, gaskets, foam)*

**Anti-reflective / smudge**
*(Lens or screen coatings)*

**Water resistant fabric**
*(Fluoroacrylic coated fabric)*

**Wires**
*(PTFE and PFA wires)*

**PTFE parts**
*(Bearings, tubes, and seals)*



**PTFE wraps**
*(Tubes and wraps)*

**Metal Coating**
*(Frictionless metal coating)*

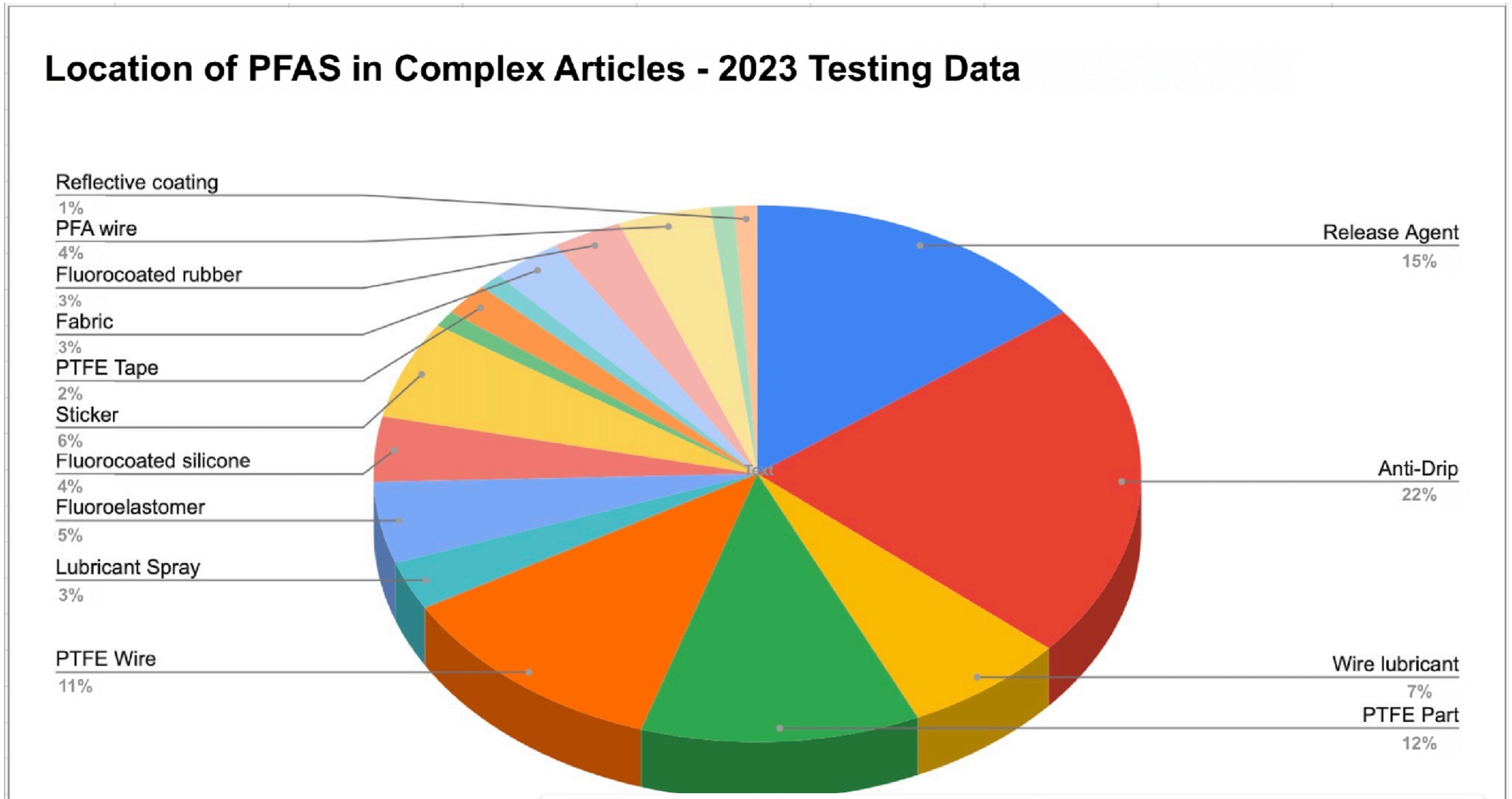
**PTFE Tape**
*(Tape and seals)*

**Fluoro seals**
*(FKM, FFKM, PTFE seals)*

**Wire lubrication**
*(Internal hookup wires)*

# PFAS Uses
# Claigan WD-XRF Results

- Products tested in February / August 2023



# US TSCA PFAS Reporting

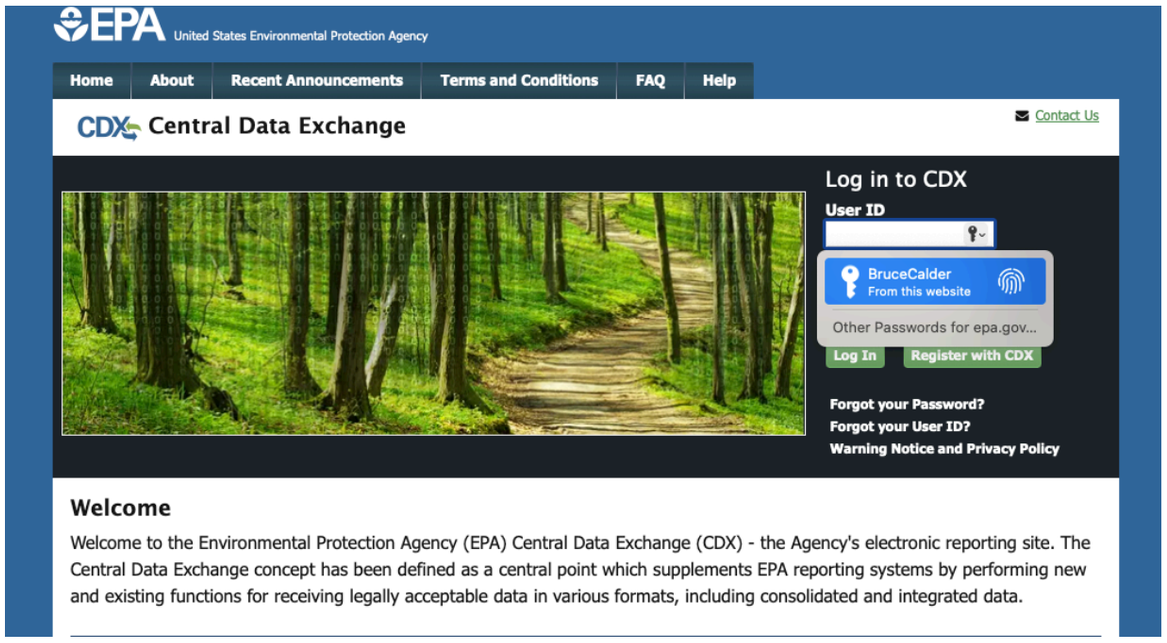
- What needs to be reported to the EPA in 2025?

- US
  - Reporting of PFAS in products

- State
  - Reporting of PFAS in each product family

# US TSCA PFAS Reporting

- Where does it need to be reported?
  - CDX
    - Which is built for chemical reporting (not articles)
    - However, articles still have to report
    - Reporting form is not ready yet



# US TSCA PFAS Reporting Articles

- "Streamlined" reporting in CDX for article importers
  - Of information that is "reasonably ascertainable"

- Key components
  - Reporting by chemical (ie. PTFE) not product
  - Volume (in number of products sold with PTFE)
  - Use information

# Reporting Requirements

- **For each PFAS in articles (example PTFE)**
  - Chemical identity (*Poly(tetrafluoroethylene)*)
    - Generic name (*PTFE*)
    - CAS number
  - Import volume
    - # of units containing PTFE
  - Industrial processing or use (*U)*
  - Sector (*IS42 - Electrical equipment, appliance, and component manufacturing*)
  - Product category (*CC219 - Machinery, mechanical appliances, electrical*)
  - Each functional use (*F034 - Insulators, F999 - Other - Friction resistance*)
    - And % volume of each use
  - Consumer or commercial (*Y/N*)
    - Intended for children (*Y/N*)

# Integrated Data

- **Data integrated for reporting to EPA**
  - EPA data for submission requires consolidation

| | | |
|---|---|---|
| Product | | |
| # of units | | |
| Consumer | Commercial | |
| Intended for Children | No | |
| | | |
| **Chemical** | **PTFE** | **Fluoroelastomer** |
| Chemical | Poly(tetrafluoroethylene) | Vinylidene fluoride-hexafluoropropene polymer |
| Generic Name | PTFE | FKM |
| Cas number | 9002-84-0 | 9011-17-0 |
| Concentration in product | 0.1% to 1% | 0.1% to 1% |
| Process or Use Operation | U - Use - non-incorporative… | U - Use - non-incorporative … |
| Industrial Sector (IS) | IS42 - Electrical equipment… | IS42 - Electrical equipment,… |
| Product Category Codes | CC219 - Machinery, mecha… | CC219 - Machinery, mecha… |
| Function 1 | F034 - Insulators | F006 - Sealant (barrier) |
| % 1 | 50% | 100% |
| Function 2 | F029 - Flame retardant | |
| % 2 | 25% | 0 |
| Function 3 | F999 - Other - Friction resistance | |
| % 3 | 24% | 0 |
| Function 2 | F041 - Lubricating Agent | |
| % 4 | 1% | 0 |
| | | |
| Total % | 100% | 100% |

# Claigan Testing

- **For any modern tested product (2023+)**
  - Claigan provides full details with PFAS reportable testing
    - State and federal level

| PFAS | Co-Axial Connector | Solid PTFE (General) | |
|---|---|---|---|
| Intentionally added | Yes | Yes | Y |
| Chemical | PTFE | PTFE | F |
| Cas number | 9002-84-0 | 9002-84-0 | 9 |
| Concentration in component | 50% | 100% | |
| Concentration in product | 0.1% to 1% | 0.1% to 1% | |
| Process or Use Operation | U - Use - non-i… | U - Use - non-i… | |
| Industrial Sector (IS) | IS42 - Electrical… | IS42 - Electrical… | |
| Product Category Codes | CC219 - Machi… | CC219 - Machi… | |
| Function Category | F034 - Insulators | F999 - Other - Friction resistance | |
| Purpose of PFAS | PTFE is a polymer with chemical, thermal, mechanical and | PTFE is a polymer with chemical, thermal, mechanical and | F c n |

# Claigan PFAS Testing


Identify representative products

Test representative products

Test for PFOA EU Restrictions

Outputs

Part level declarations

Summary for US

Summary for US States

EU PFAS Restriction Derogations

| PFAS | PTFE Wire | Anti-Drip | Fluoroacrylic coating |
|---|---|---|---|
| Intentionally added | Yes | Yes | Yes |
| Chemical | PTFE | PTFE | Fluoroalkyl acrylate copolymer |
| Cas number | 9002-84-0 | 9002-84-0 | |
| Concentration in component | 50% | 0.50% | 0.20% |
| Concentration in product | 0.1% to 1% | 0.1% to 1% | <0.1% |
| Process or Use Operation | U - Use - non-in… | U - Use - non-inc… | U - Use - non-inc… |
| Function Category | F034 - Insulators | F029 - Flame retardant | F027 - Waterproofing agent |
| Purpose of PFAS | PTFE is commonly used in cables due its superb fire, smoke and chemical | PTFE Anti-dripping agents are mainly used in plastic materials that require | PFAS based durable water repellent, or DWR, is a coating added to fabrics at |

MAINE

ECHA
EUROPEAN CHEMICALS AGENCY

# Claigan Process Part I

- **Baseline data for all situations**
  - Application based results
  - Can be used for all jurisdiction

| PFAS | Co-Axial Connector | Solid PTFE (General) | |
|---|---|---|---|
| Intentionally added | Yes | Yes | Y |
| Chemical | PTFE | PTFE | P |
| Cas number | 9002-84-0 | 9002-84-0 | 9 |
| Concentration in component | 50% | 100% | |
| Concentration in product | 0.1% to 1% | 0.1% to 1% | |
| Process or Use Operation | U - Use - non-i… | U - Use - non-i… | |
| Industrial Sector (IS) | IS42 - Electrical… | IS42 - Electrical… | |
| Product Category Codes | CC219 - Machi… | CC219 - Machi… | |
| Function Category | F034 - Insulators | F999 - Other - Friction resistance | |
| Purpose of PFAS | PTFE is a polymer with chemical, thermal, mechanical and | PTFE is a polymer with chemical, thermal, mechanical and | P c n |

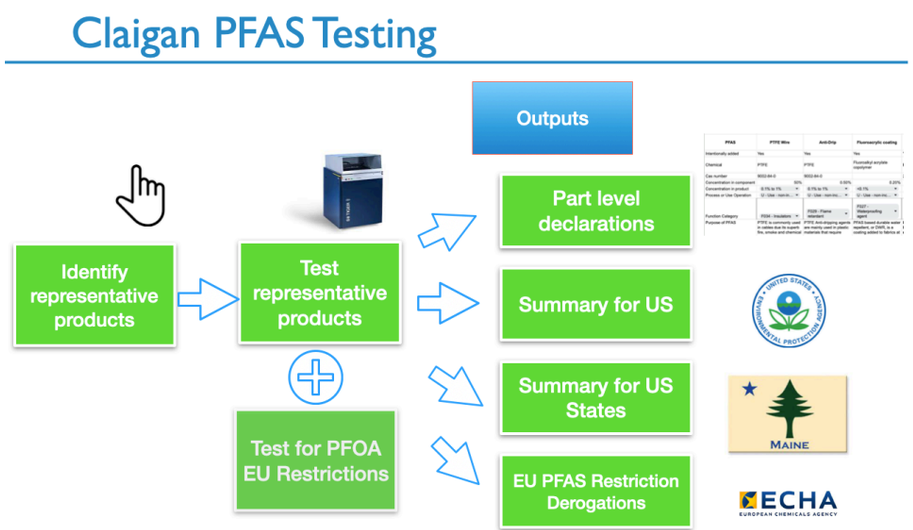
# Claigan Process Part 2

- **Consolidated data for US Federal or State**
  - For reporting

| Product | | |
|---|---|---|
| # of units | | |
| Consumer | Commercial | |
| Intended for Children | No | |
| | | |
| **Chemical** | **PTFE** | **Fluoroelastomer** |
| Chemical | Poly(tetrafluoroethylene) | Vinylidene fluoride-hexafluoropropene polymer |
| Generic Name | PTFE | FKM |
| Cas number | 9002-84-0 | 9011-17-0 |
| Concentration in product | 0.1% to 1% | 0.1% to 1% |
| Process or Use Operation | U - Use - non-incorporative… | U - Use - non-incorporative … |
| Industrial Sector (IS) | IS42 - Electrical equipment… | IS42 - Electrical equipment,… |
| Product Category Codes | CC219 - Machinery, mecha… | CC219 - Machinery, mecha… |
| Function 1 | F034 - Insulators | F006 - Sealant (barrier) |
| % 1 | 50% | 100% |
| Function 2 | F029 - Flame retardant | |
| % 2 | 25% | 0 |
| Function 3 | F999 - Other - Friction resistance | |
| % 3 | 24% | 0 |
| Function 2 | F041 - Lubricating Agent | |
| % 4 | 1% | 0 |
| | | |
| Total % | 100% | 100% |

# Next Steps

- Recommendation
- **Ask for a quote**




- Why?
  - It is not a commitment
  - But it is a solution
  - And someone will likely be asking you
    - **How much and how long?**

# Updating of Legacy Tested Products

- Btw
  - We are asked all the time about updating the compliance of previously tested products

- Claigan has a straight forward process
  - With a plan for each year

# 2024 Legacy Product Update Program

TSCA
PIP 3:1

TSCA
PFAS

EU MDR
ATP 18, 19, 20

POP
PFHxS

**Costs roughly 25% of the original testing cost**

**2024**

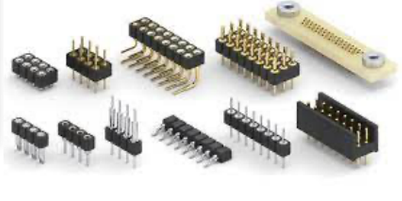
REACH
Dechlorane Plus

REACH / POP
PFOA+

REACH
Formaldehyde

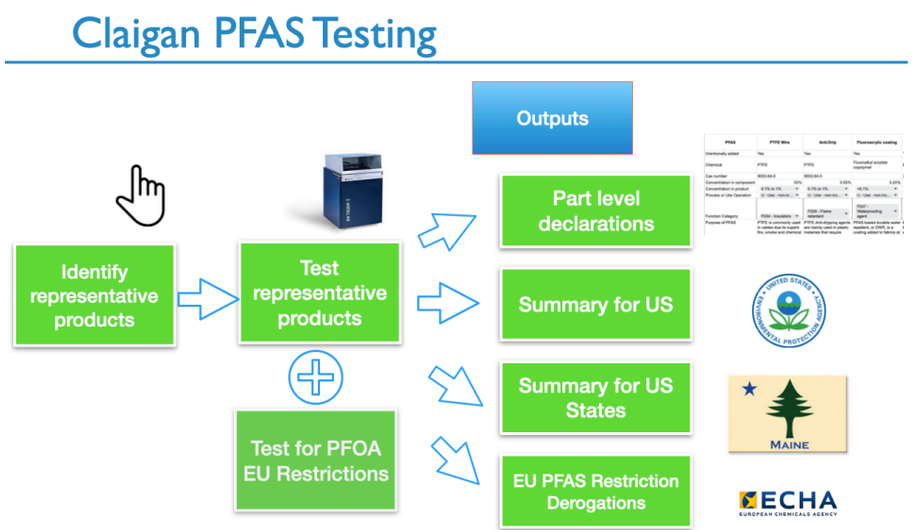
REACH SVHC
TBBPA,
Melamine,
TBPH

REACH
MCCP



# Next Steps
# US TSCA PFAS Reporting

- Recommendation
- **Ask for a quote**




- Why?
  - It is not a commitment
  - But it is a solution
  - And someone will likely be asking you
    - **How much and how long?**

Q&A