Claigan

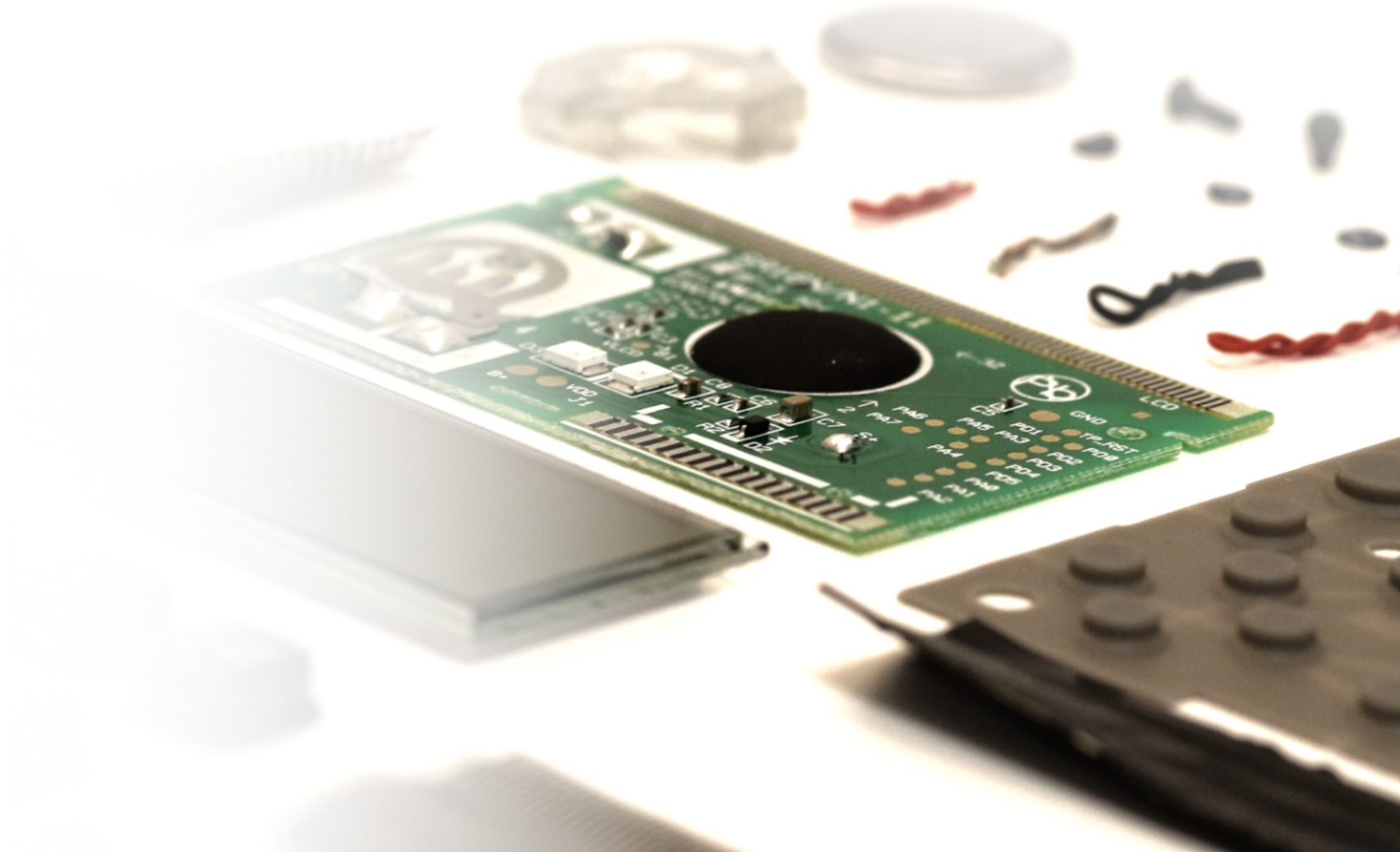
Less Journey. More Results.

Claigan Webinar

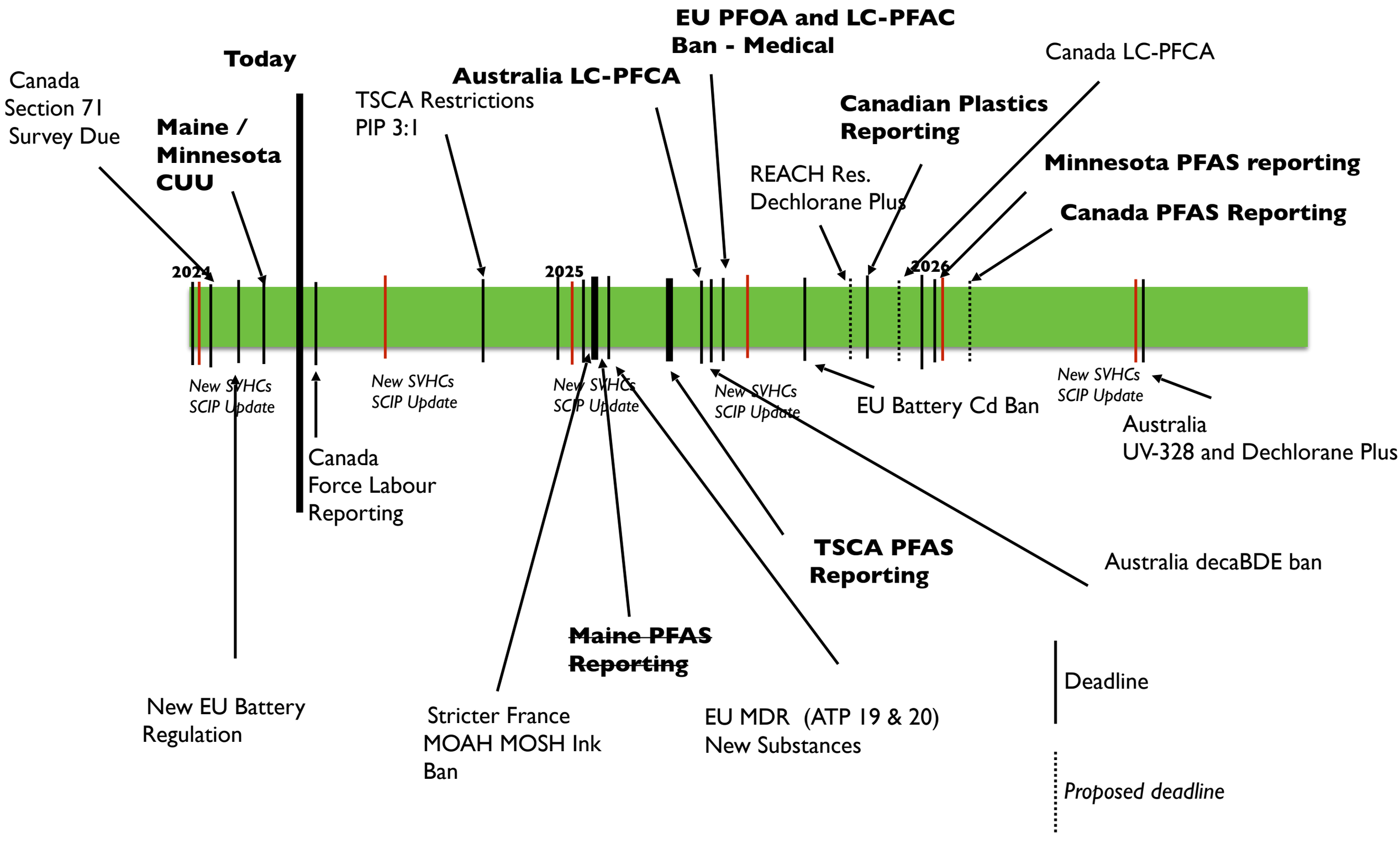
Where are the PFAS Regulations at?

Presented by:
Bruce Calder
VP Consulting

May 1, 2024



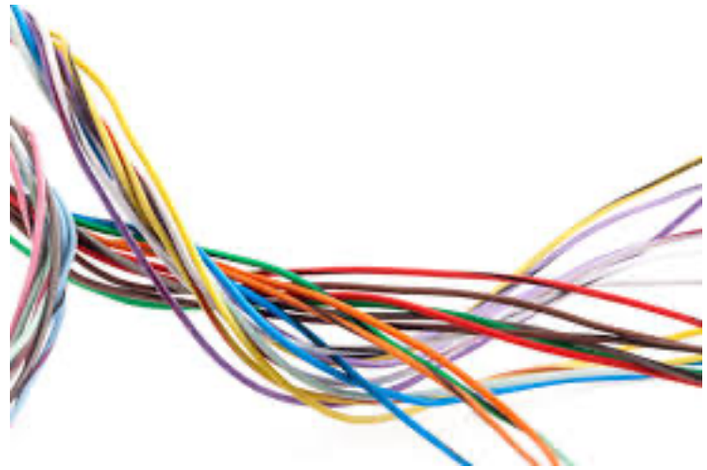
Restricted Materials
Constant Deadlines



Overview - Agenda

- Summary of PFAS Regulation
  - PFAS Reporting
  - PFOA Restriction
  - PFAS Restriction
- 2025 PFAS Requirements
- Maine PFAS Update
- US TSCA
- EU
  - PFOA/LC-PFCA Restriction
  - PFAS Restriction
- Canada
  - PFAS reporting
  - PFOA / LC-PFAC Restriction
- Australia
- Singapore

- Q&A



Intended to be 50 minutes
/w 10 min Q&A

PFAS Deadlines
PFAS Reporting

- **PFAS Reporting**
  - Jurisdictions where you will have to reporting PFAS usage
    - Primarily reporting of fluoropolymers *not impurities*
  - Requirements are different in each jurisdiction

- **Currently PFAS Reporting Regulations**
  - US EPA - TSCA
  - Maine PFAS (*in flux)*
  - Minnesota PFAS (*likely to change*)
  - Canadian - CEPA 71 (*upcoming*)

PFAS Deadlines
PFOA Restriction

- **PFOA - LC-PFCA Restriction**
  - Restriction on PFOA and longer (LC-PFCA)
    - Fluorosalt found in water and in humans
  - Based on the UN Stockholm Convention

- **Currently PFOA Restrictions Regulations**
  - EU REACH and POP
  - Australia POP (2025)
  - Canadian Prohibition (*Upcoming*)
  - Singapore (*but not really*)
  - California Proposition 65 (*limited impact*)

PFAS Deadlines
PFAS Restrictions

- **PFAS Restriction**
  - Ban on all PFAS including fluoropolymers
    - Because science is hard
  - Based reading the headlines (and maybe the opening paragraph) of news reports

- **PFAS Restrictions Regulations**
  - EU PFAS Restriction (*in discussion*)
  - Minnesota Cookware (*sort of)*
  - Various US state level restrictions on PFAS in
    - Menstrual products, straws, and other specific categories

Maine PFAS

- **Two changes in the works**
  - 2024 amendment to legislation
  - Current Unavoidable Uses (CUU)

K. A semiconductor, including semiconductors incorporated in electronic equipment, and equipment and materials used in the manufacture of semiconductors;

L. Nonconsumer electronics and nonconsumer laboratory equipment not ordinarily used for personal, family or household purposes; and

M. Equipment directly used in the manufacture or development of the products described in paragraphs E to L.

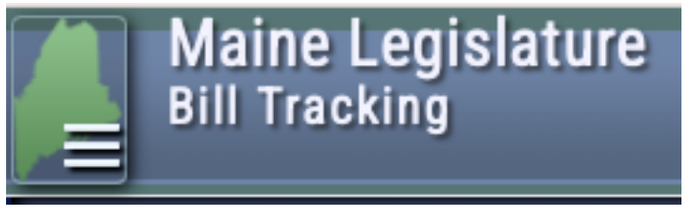
5. Prohibition on sale of products containing intentionally added PFAS. This subsection governs sales of products containing intentionally added PFAS.

A. ~~Effective~~ Except as provided pursuant to paragraph F or G, effective January 1, 2023, a person may not sell, offer for sale or distribute for sale in this State a carpet or rug that contains intentionally added PFAS. ~~This~~ The prohibition under this paragraph

COMMITTEE AMENDMENT

Maine Amendment - PFAS

- **Progress**
  - Passed House in April
  - Passed Senate in April
  - Governor signed



- Note - does not include input from recent consultation on definitions and currently unavoidable uses
  - May be further amended in future

Maine Amendment - PFAS

- **Exempted from Scope (Legislation)**
  - No reporting or restriction requirements

- **Exempted products**
  - Product packaging
  - Medical devices (including veterinarian)
  - Products for public health, environmental or water testing
  - Products required to meet requirements of
    - DoT, DoD, Homeland Security
    - Excluded from exemption - textiles and refrigerants
  - Motor vehicles
  - Semiconductor including semiconductor components
  - Non-consumer electronics and laboratory equipment
    - *Not normally for personal, family, or household purposes*
  - *Plus* equipment used to manufacture the above, water craft, used products, federal mandated PFAS uses, and fire fighting foam

Maine Amendment - PFAS Changes in Reporting

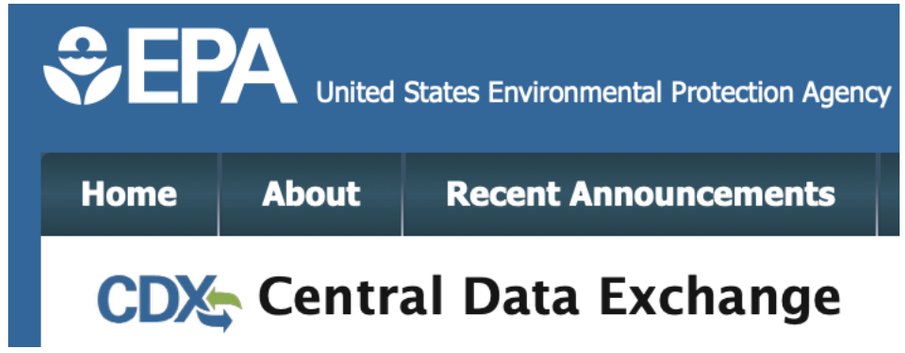
- **Notification**
  - Notification is only required for PFAS uses that are **C**urrently **U**navoidable **U**ses (CUU).
  - CUU will be listed in the next Maine amendment
  - Notification date is no longer Jan 2025
    - The CUU details should provide details on timeline
- Notification contains the same requirements
  - Brief description of product
  - Purpose of PFAS
  - Amount of PFAS by CAS number
  - Name and address of the manufacturer and contact person
  - CUU identity
  - Fee payment

PFAS Deadlines

- **2025**
  - In scope
    - EU PFOA/LC-PFCA Restriction (REACH and POP)
    - ~~Maine PFAS reporting (*consumer products*)~~
    - US TSCA PFAS Reporting (*except medical products*)
    - Australia PFOA/LC-PFCA Restriction (*except medical products*)
    - Canada PFOA/LC-PFCA Restriction (Canadian Prohibition) - *expected*
    - Canadian PFAS reporting (Section 71) - *expected*

US TSCA PFAS Reporting

- Companies must report PFAS imported into or manufactured in the US
  - Back to 2011



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

US TSCA PFAS Reporting

- PFAS reporting requirement is for 'chemical substances'
  - *"requiring persons that manufacture (including import) or have manufactured these **chemical substances**"*

- **Chemical substances** not regulated or excluded by TSCA include:
  - Pesticides regulated by FIFRA
  - Tobacco and tobacco products regulated by ATF
  - Radioactive materials regulated by NRC
  - Foods, food additives, drugs, cosmetics or **devices** regulated by FDA

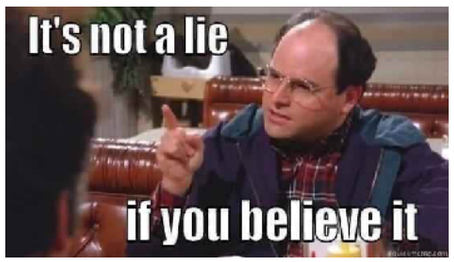
- Medical devices can report as 'non-TSCA' applications but are not required to

US TSCA PFAS Reporting

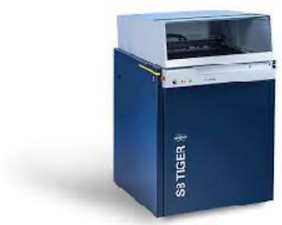
Phase 1
Identifying PFAS

→ **Identify PFAS in Products**

→ **Supplier Data**



→ **Representative Product Testing**



Phase 2
Chemical Template

→ **Amalgamate Data by PFAS**

→ **Create Chemical Templates**

Chemical	PTFE	Fluoroelastomer	PFA
Chemical	Poly(tetrafluoroethylene)	Vinylidene fluoride-hexafluoropropene polymer	Perfluoroalkoxy alkane
Generic Name	PTFE	FKM	PFA
Cas number	9002-84-0	9011-17-0	26655-00-5
Concentration in product	<0.1%	0.1% to 1%	0.1% to 1%
Process or Use Operation	U - Use - non-incorporative...	U - Use - non-incorporative ...	U - Use - non-incorpora...
Industrial Sector (IS)	IS42 - Electrical equipment...	IS42 - Electrical equipment...	IS42 - Electrical equipm...
Product Category Codes	CC219 - Machinery, mecha...	CC219 - Machinery, mecha...	CC219 - Machinery, me...
Function 1	F034 - Insulators	F006 - Sealant (barrier)	F034 - Insulators
% 1	50%	100%	100%
Function 2	F029 - Flame retardant		
% 2	25%	0	0
Function 3	F041 - Lubricating Agent		
% 3	20%	0	0
Function 2	F006 - Sealant (barrier)		
% 4	5%	0	0

Phase 3
Merge Sales Volumes

→ **Determine Sales Volumes**

→ **Merge into Chemical Templates**

Function 3	F041 - Lubricating Agent
% 3	20%
Function 2	F006 - Sealant (barrier)
% 4	5%
Total %	100%
Units Volume	**# of Units**
2011	2750
2012	2975
2013	3218
2014	3478
2015	3756

US TSCA PFAS Reporting
Phase 1 - Identifying PFAS in Products

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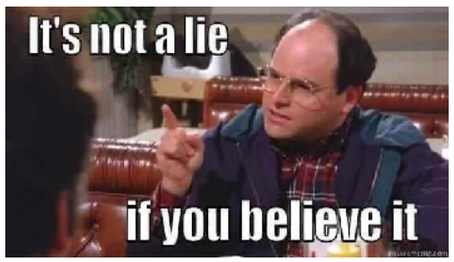
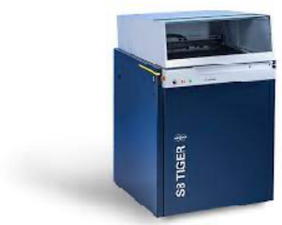
Phase 1
Identifying PFAS

→ **Identify PFAS in Products**

→ **Supplier Data**



→ **Representative Product Testing**



Phase 2
Chemical Template

→ **Amalgamate Data by PFAS**

→ **Create Chemical Templates**

Chemical	PTFE	Fluoroelastomer	PFA
Chemical	Poly(tetrafluoroethylene)	Vinylidene fluoride-hexafluoropropene polymer	Perfluoroalkoxy alkane
Generic Name	PTFE	FKM	PFA
Cas number	9002-84-0	9011-17-0	26655-00-5
Concentration in product	<0.1%	0.1% to 1%	0.1% to 1%
Process or Use Operation	U - Use - non-incorporative...	U - Use - non-incorporative ...	U - Use - non-incorpora...
Industrial Sector (IS)	IS42 - Electrical equipment...	IS42 - Electrical equipment...	IS42 - Electrical equipm...
Product Category Codes	CC219 - Machinery, mecha...	CC219 - Machinery, mecha...	CC219 - Machinery, me...
Function 1	F034 - Insulators	F005 - Sealant (carrier)	F034 - Insulators
% 1	50%	100%	100%
Function 2	F029 - Flame retardant		
% 2	25%	0	0
Function 3	F041 - Lubricating Agent		
% 3	20%	0	0
Function 2	F006 - Sealant (barrier)		
% 4	5%	0	0

Phase 3
Merge Sales Volumes

→ **Determine Sales Volumes**

→ **Merge into Chemical Templates**

Function 3	F041 - Lubricating Agent
% 3	20%
Function 2	F006 - Sealant (barrier)
% 4	5%
Total %	100%
Units Volume	**# of Units**
2011	2750
2012	2975
2013	3218
2014	3478
2015	3756

Representative Product Testing

- **Claigan Process**
  - Choose representative product from each product line
  - Test representative product
  - Create chemical template for representative product

- **Why?**
  - Way more accurate than supplier data
  - Lower effort than supplier data
  - Faster with time certainty
  - Data is consistent and easier to merge into chemical templates
  - Easiest to process for federal or state requirements

Representative Product Testing
Larger / More Valuable Product

- **Claigan Process**
  - Combine
    - BOM review
    - Testing of representative parts from representative product

- **Why?**
  - Duplicate information is not terribly useful for reporting
  - Some PFAS uses are obvious from BOM review
  - Product so large that full testing would be mostly duplicate testing of the same uses

US TSCA PFAS Reporting
Phase 2 - Chemical Template

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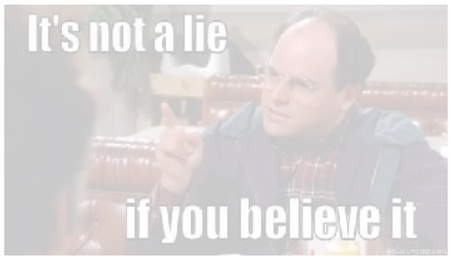
Phase 1
Identifying PFAS

Identify PFAS in Products

Supplier Data



Representative Product Testing

Phase 2
Chemical Template

Amalgamate Data by PFAS

Create Chemical Templates

Chemical	Polytetrafluoroethylene)	Vinylidene fluoride-hexafluoropropene polymer	Perfluoroalkoxy alkane
Generic Name	PTFE	FKM	PFA
Cas number	9002-84-0	9011-17-0	26655-00-5
Concentration in product	<0.1%	0.1% to 1%	0.1% to 1%
Process or Use Operation	U - Use - non-incorporative...	U - Use - non-incorporative ...	U - Use - non-incorpora...
Industrial Sector (IS)	IS42 - Electrical equipment...	IS42 - Electrical equipment...	IS42 - Electrical equipm...
Product Category Codes	CC219 - Machinery, mecha...	CC219 - Machinery, mecha...	CC219 - Machinery, me...
Function 1	F034 - Insulators	F006 - Sealant (barrier)	F034 - Insulators
% 1	50%	100%	100%
Function 2	F029 - Flame retardant		
% 2	25%	0	0
Function 3	F041 - Lubricating Agent		
% 3	20%	0	0
Function 2	F006 - Sealant (barrier)		
% 4	5%	0	0

Phase 3
Merge Sales Volumes

Determine Sales Volumes

Merge into Chemical Templates

Function 3	F041 - Lubricating Agent
% 3	20%
Function 2	F006 - Sealant (barrier)
% 4	5%
Total %	100%

Units Volume	# of Units
2011	2750
2012	2975
2013	3218
2014	3478
2015	3756

Phase 2 -
PFAS Chemical Template

- **Chemical template**
  - US TSCA Reporting is by chemical
    - Not product
  - Claigan creates a reporting template for each reportable PFAS

Chemical	PTFE	Fluoroelastomer	PFA
Chemical	Poly(tetrafluoroethylene)	Vinylidene fluoride-hexafluoropropene polymer	Perfluoroalkoxy alkane
Generic Name	PTFE	FKM	PFA
Cas number	9002-84-0	9011-17-0	26655-00-5
Concentration in product	<0.1%	0.1% to 1%	0.1% to 1%
Process or Use Operation	U - Use - non-incorporative…	U - Use - non-incorporative …	U - Use - non-incorpora…
Industrial Sector (IS)	IS42 - Electrical equipment…	IS42 - Electrical equipment,…	IS42 - Electrical equipm…
Product Category Codes	CC219 - Machinery, mecha…	CC219 - Machinery, mecha…	CC219 - Machinery, me…
Function 1	F034 - Insulators	F006 - Sealant (barrier)	F034 - Insulators
% 1	50%	100%	100%
Function 2	F029 - Flame retardant		
% 2	25%	0	0
Function 3	F041 - Lubricating Agent		
% 3	20%	0	0
Function 2	F006 - Sealant (barrier)		
% 4	5%	0	0

US TSCA PFAS Reporting
Phase 2 - Merging Sales Volumes

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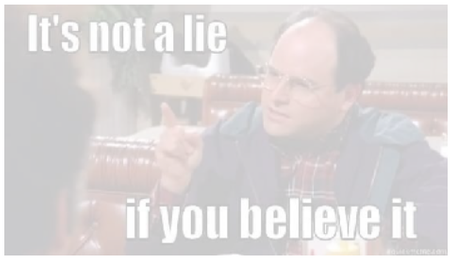
Phase 1
Identifying PFAS

Identify PFAS in Products

Supplier Data

Representative Product Testing



Phase 2
Chemical Template

Amalgamate Data by PFAS

Create Chemical Templates

Chemical	Polytetrafluoroethylene	Vinylidene fluoride-hexafluoropropene polymer	Perfluoroalkoxy alkane
Generic Name	PTFE	FKM	PFA
Cas number	9002-84-0	9011-17-0	26655-00-5
Concentration in product	<0.1%	0.1% to 1%	0.1% to 1%
Process or Use Operation	U - Use - non-incorporative...	U - Use - non-incorporative ...	U - Use - non-incorpora...
Industrial Sector (IS)	IS42 - Electrical equipment...	IS42 - Electrical equipment...	IS42 - Electrical equipm...
Product Category Codes	CC219 - Machinery, mecha...	CC219 - Machinery, mecha...	CC219 - Machinery, me...
Function 1	F034 - Insulators	F006 - Sealant (barrier)	F034 - Insulators
% 1	50%	100%	100%
Function 2	F029 - Flame retardant		
% 2	25%	0	0
Function 3	F041 - Lubricating Agent		
% 3	20%	0	0
Function 2	F006 - Sealant (barrier)		
% 4	5%	0	0

Phase 3
Merge Sales Volumes

Determine Sales Volumes

Merge into Chemical Templates

Function 3	F041 - Lubricating Agent
% 3	20%
Function 2	F006 - Sealant (barrier)
% 4	5%
Total %	100%
Units Volume	**# of Units**
2011	2750
2012	2975
2013	3218
2014	3478
2015	3756

Phase 3 - Merging Sales Volumes

- **Merging Sales Volumes**
  - Mapping of products lines to chemical templates
  - Adding sales volumes to 2011 by product line
  - Generating final reporting numbers
    - In # of units or kg (lb)

Product Family 1	100%
Product Family 2	100%
Product Family 3	0%
Product Family 4	75%
# of units	
Consumer	Commercial
Intended for Children	No

Chemical	**PTFE**
Chemical	Poly(tetrafluoroethylene)
Generic Name	**PTFE**
Cas number	9002-84-0
Concentration in product	<0.1%
Process or Use Operation	U - Use - non-incorporative…
Industrial Sector (IS)	IS42 - Electrical equipment…
Product Category Codes	CC219 - Machinery, mecha…
Function 1	F034 - Insulators
% 1	50%
Function 2	F029 - Flame retardant
% 2	25%
Function 3	F041 - Lubricating Agent
% 3	20%
Function 2	F006 - Sealant (barrier)
% 4	5%
Total %	100%
Units Volume	**# of Units**
2011	2750
2012	2975
2013	3218
2014	3478
2015	3756
2016	4053
2017	4369

Phase 3 - Merging Sales Volumes

- **Sales Volumes**
  - Client products sales volumes per product line
    - # of units sold
    - *Can be approximated by $ of sales / average value of sale*

Year	Product Family 1	Product Family 2	Product Family 3	Product Family 4
2011	1000	1000	500	1000
2012	1200	1100	550	900
2013	1400	1210	605	810
2014	1600	1331	666	729
2015	1800	1464	733	656
2016	2000	1610	806	590
2017	2200	1771	887	531
2018	2400	1948	976	478
2019	2600	2143	1074	430
2020	2800	2357	1181	387
2021	3000	2593	1299	348
2022	3200	2852	1429	313

Final -
Data to Submit

- **Data to Submit**
  - Per chemical
    - Chemical name
    - CAS number
    - Max concentration in product
    - Product or Use
    - Industrial Sector
    - Product Category Codes
    - Function(s)
      - % of chemical use is each function
    - # of units, or
      - Tonnage

Chemical	PTFE
Chemical	Poly(tetrafluoroethylene)
Generic Name	PTFE
Cas number	9002-84-0
Concentration in product	<0.1%
Process or Use Operatio	U - Use - non-incor…
Industrial Sector (IS)	IS42 - Electrical eq…
Product Category Codes	CC219 - Machiner…
Function 1	F034 - Insulators
% 1	50%
Function 2	F029 - Flame retardant
% 2	25%
Function 3	F041 - Lubricating Agent
% 3	20%
Function 2	F006 - Sealant (barrier)
% 4	5%
Total %	100%
Units Volume	**# of Units**
2011	2750
2012	2975
2013	3218
2014	3478
2015	3756
2016	4053
2017	4369
2018	4707
2019	5066
2020	5447
2021	5854
2022	6287
Tonnage volume	**kg**
2011	1650
2012	1785
2013	1930.5
2014	2086.7
2015	2253.6
2016	2431.5
2017	2621.6

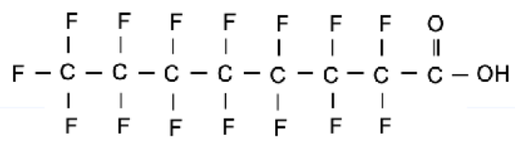
Canada PFAS Reporting

- **Planned to be CEPA Section 71 Survey in 2024**
  - Mandatory data gathering
  - Expected in second half of 2024 for 2025.
- **But….**
  - Weblink has been taken down
  - So we will see.

PFOA / LC-PFCA Restriction

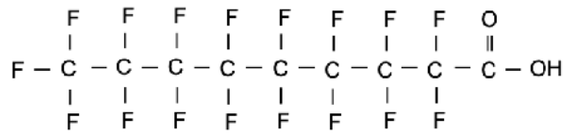
- **PFOA / LC-PFCA**
  - (LC-PFCA are longer versions of PFOA)
  - Water soluble PFAS that have been found in drinking water and humans

PFOA

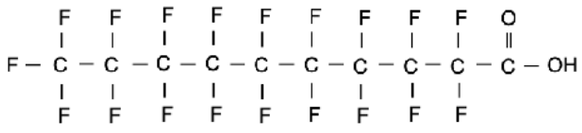


- **Unintentionally formed**
  - In certain types of fluoropolymers

PFNA



PFDA



  - In 10s of millions of products per years
    - Laptops, hard drives, tablets, water resistant electronics, winter gloves

PFOA / LC-PFCA Restriction

- **Banned (currently)**
  - EU (current except invasive medical which is July 2025)
    - At 25 ppb

- **Banned (2025)**
  - Australia (July 2025) and Canada (*planned)*
    - At 25 ppb

PFOA / LC-PFCA Restriction

- **Source of restriction**
  - UN Stockholm Convention
    - Derogation submitted for 2ppm
      - In PTFE filters and tape
    - Draft response expected in May
    - Decision not until September

Sources of PFOA / LC-PFCA

- **In physical products**

- **ePTFE (expanded PTFE)**
  - Flexible PTFE

- **PFA (Perfluoroxyalkane Polymer)**
  - Thin highly flexible high temperature wire

- **Fluoroacrylates**
  - Water proof coating

Sources of PFOA / LC-PFCA

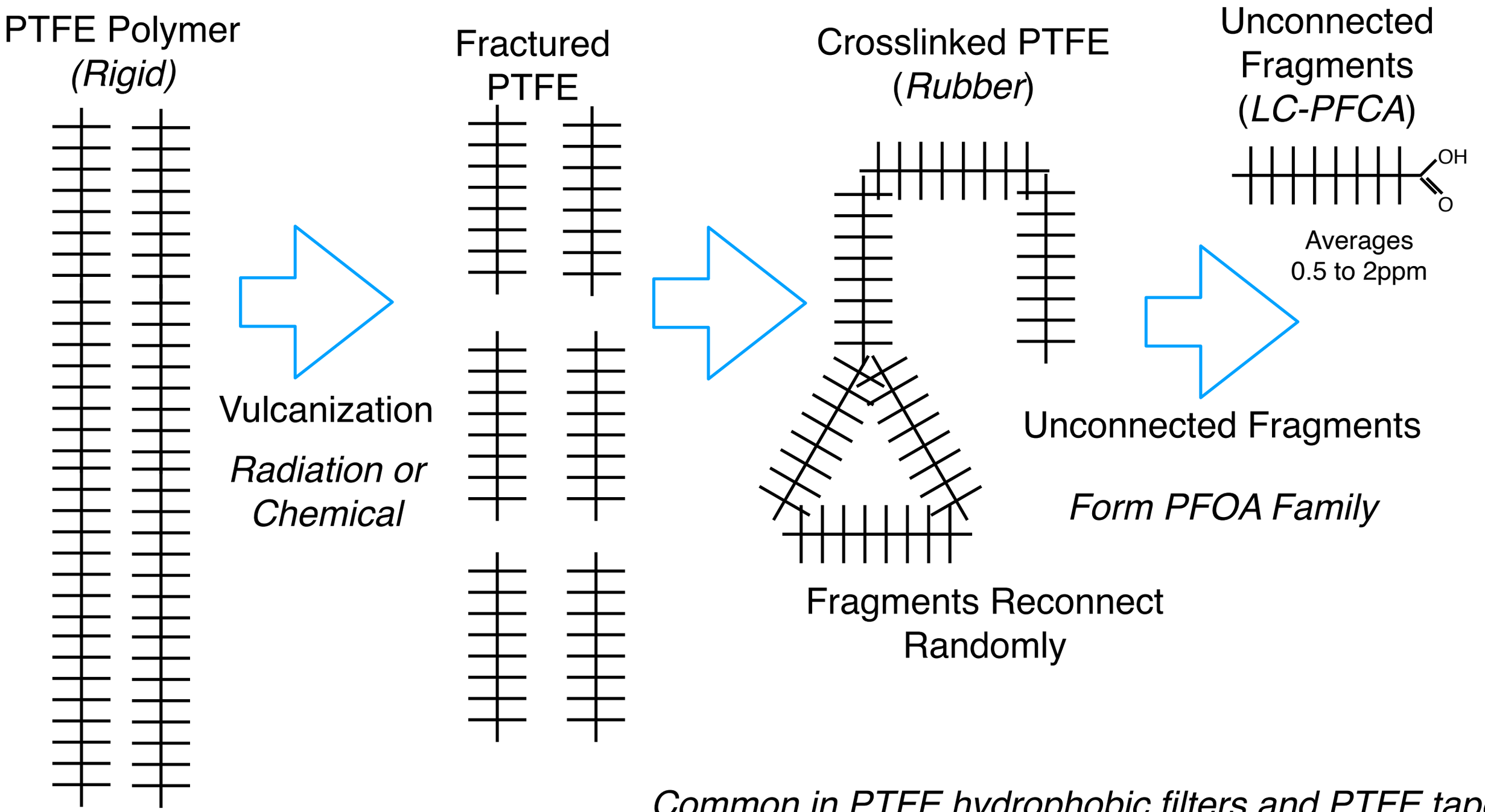
- **In physical products**

- **ePTFE (expanded PTFE)**
  - Flexible PTFE (Filters, tape, tubes)
- **PFA (Perfluoroxyalkane Polymer)**
  - Thin highly flexible high temperature wire

- **Fluoroacrylates**
  - Water proof coating

PFOA / LC-PFCA Formation
'Vulcanization' of PTFE

- **Perfluorocarboxylates created by fracturing and cross linking of PTFE polymer**



Common in PTFE hydrophobic filters and PTFE tape

Supplier Declarations
PTFE Powder for PTFE Filter and Tape

[redacted]

August 23, 2019

Dear Customer:

I wanted to follow up with you regarding your questions sent on August 23, 2019.
In 2006, as part of a commitment to phase out the use of PFOA in the manufacturing of fluoropolymers, eight major global manufacturers in the U.S., Europe and Japan agreed to participate in US EPA's 2010/2015 voluntary PFOA Stewardship Program (https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/fact-sheet-20102015-pfoa-stewardship-program).

Under this program manufacturers developed alternative technologies that have allowed us to stop using PFOA as a polymerization processing aid in the manufacturing of fluoropolymers.

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manufacturing facilities, [redacted] fluoropolymer products are manufactured in accordance with requirements specified by the US Environmental Protection Agency which limit the residual amount of the polymerization processing aid which can remain present as an impu[redacted] fluoropolymer products to < 200 ppb when measured using methods specified by EPA. (Larsen et al., Efficient "total" extraction of perfluorooctanoate from polytetrafluoroethylene fluoropolymer," Analyst, 2006, 131, 1105-1108.) Thus, we expect the residual polymerization processing aid impurity to be almost entirely removed, or to remain present at only trace levels, before commercial products ever leave our manufacturing site.

[redacted]

June 5, 2020

Commission Regulations (EU) 2017/1000 and (EU) 2019/1021

[redacted]

The EU has taken measures to regulate PFOA, its salts and PFOA-related compounds in a wide range of products under Annex XVII of EU REACH, Commission Regulation (EU) 2017/1000 and Annex I to Regulation (EU) 2019/1021 (EU Persistent Organic Pollutants Regulation) (as adopted on April 8, 2020 and with an enforcement date of July 4, 2020). These regulations require, subject to certain exceptions, that from July 4, 2020, mixtures and articles placed on the market in the European Union will require a concentration of ≤ 25 ppb of PFOA, including its salts, and ≤ 1000 ppb of one or a combination of PFOA-related compounds.

PFOA is not used by [redacted] intentionally added, in any of its manufacturing processes. However, as a committed supplier, we have analyzed [redacted]**illed PTFE Compounds** for trace levels of PFOA for compliance with Commission Regulation (EU) 2017/1000, using a protocol developed by [redacted] For details of the test method, click on the link below:

[redacted]

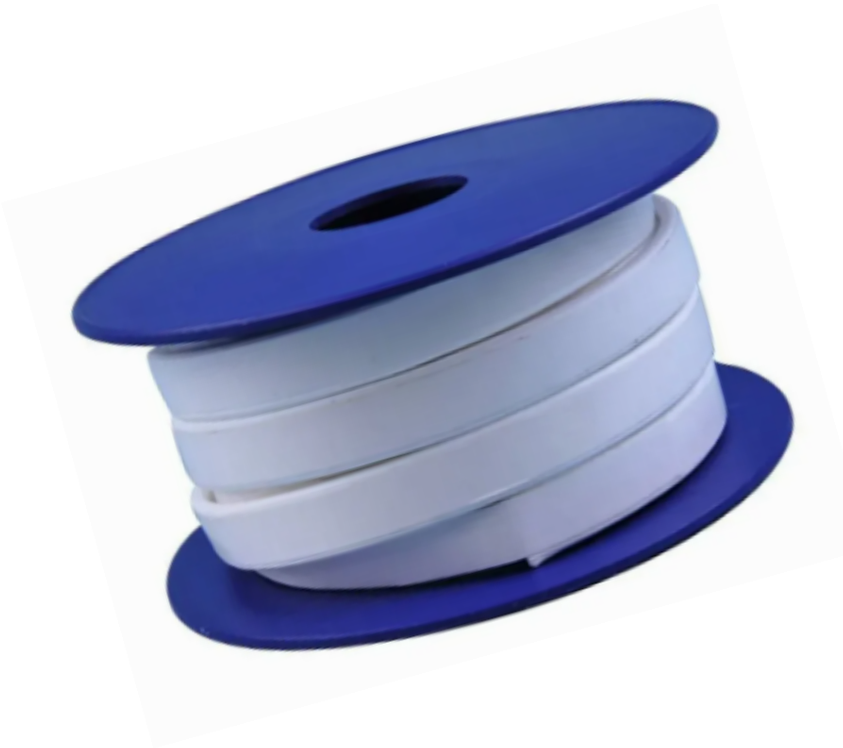
Based on analysis of representative samples and based on our knowledge of the manufacturing processes used to produce these products, the [redacted]**illed PTFE Compounds** listed in the Appendix are compliant with (EU) 2017/1000 and (EU) 2019/1021.

Difference - in 2020, they started to remove PFOA after processing of the ePTFE powder

ePTFE Test Results

MARKET PRODUCTS SURVEY 2023 – ePTFE TAPES

Manufacturer	ppb
T	ND
C1	76
C2	47
C3	130
C4	58
C5	27



Lab in Switzerland: Methanol for 2h at 60C (Detection Limit: 10ppb)

Sources of PFOA / LC-PFCA

- **In physical products**

- **ePTFE (expanded PTFE)**
  - Flexible PTFE

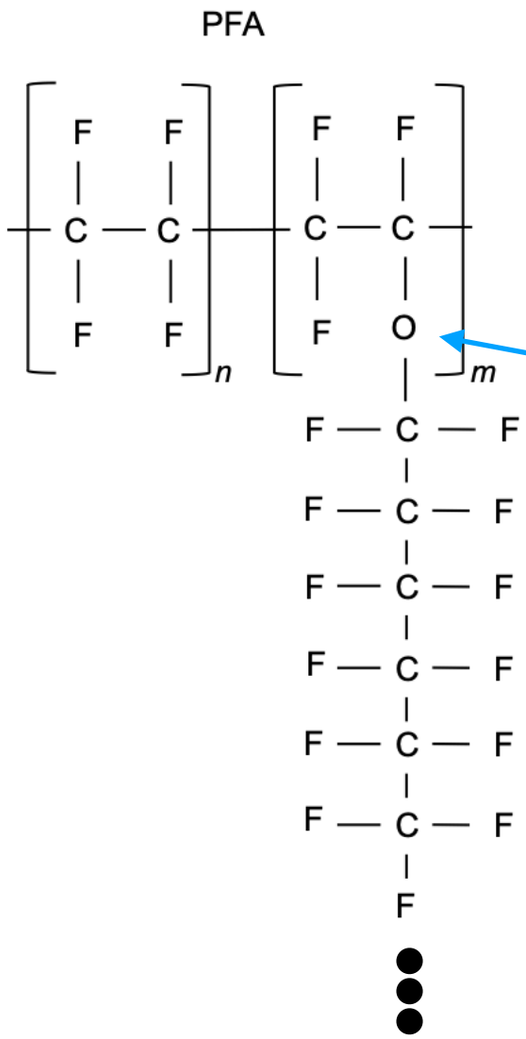
- **PFA (Perfluoroxyalkane Polymer)**
  - Thin highly flexible high temperature wire

- **Fluoroacrylates**
  - Water proof coating

PFA Wiring

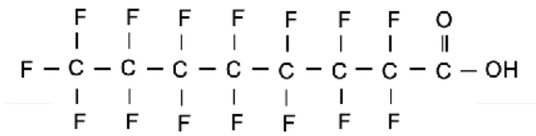
PFA

PFA

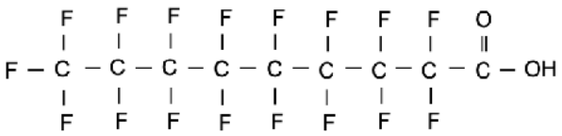


Fractures at the C-O-C bond Producing

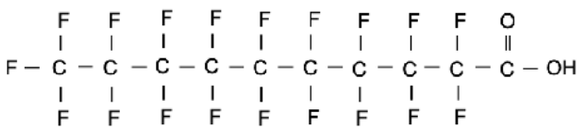
PFOA



PFNA



PFDA



Very common in laptops and tablets

Sources of PFOA / LC-PFCA

- **In physical products**

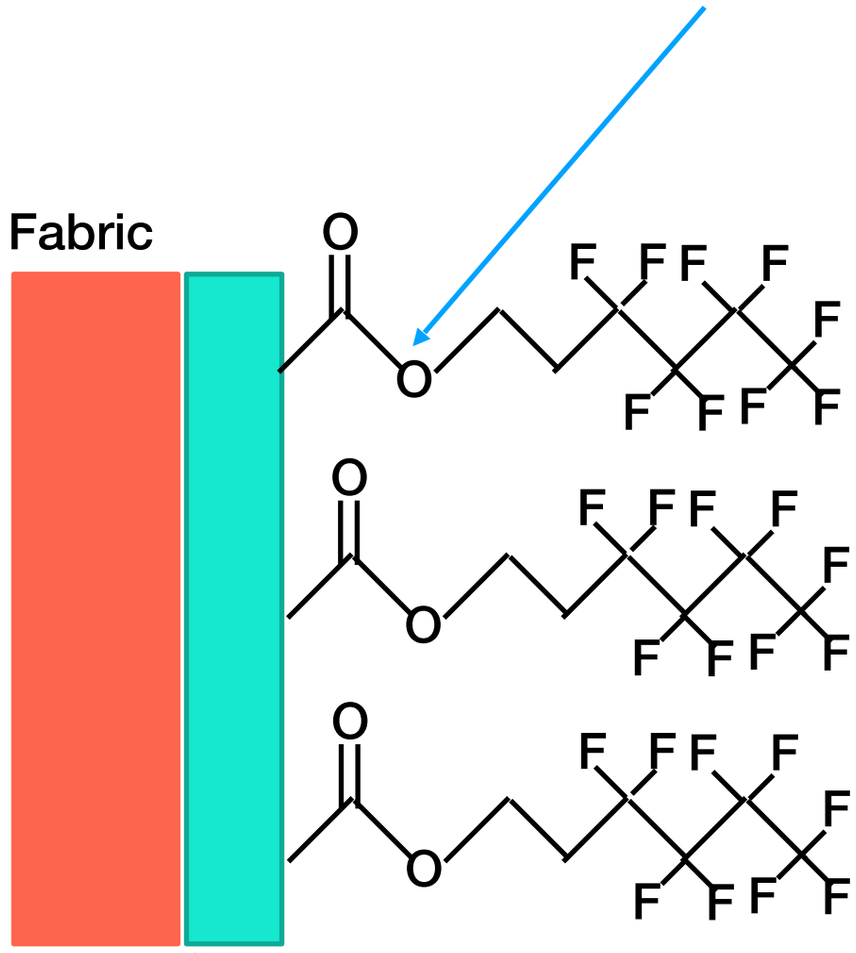
- **ePTFE (expanded PTFE)**
  - Flexible PTFE
  - **PFA (Perfluoroxyalkane Polymer)**
    - Thin highly flexible high temperature wire

- **Fluoroacrylates**
  - Water proof coating

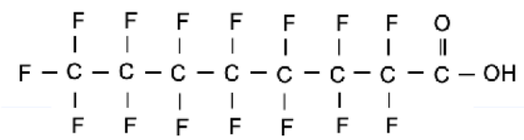
Fluoroacrylates

- **Fluoroacrylates**
  - Fluoroacrylic coatings for fabric

Weak C-O-C bond
Fractures to create PFOA



PFOA



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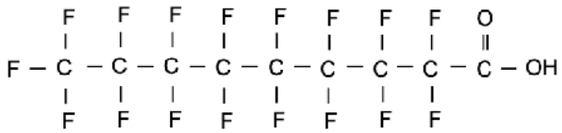
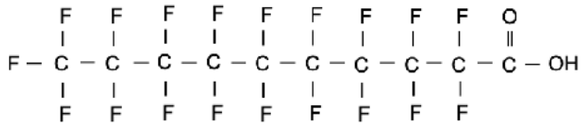
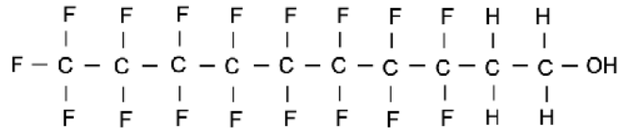


PFDA



8:2 FTOH



Compliance Note

- **What if you are above the 25 ppb limit?**
  - A derogation (exemption) request was submitted to allow up to 2ppm LC-PFCA
  - If you measure the value and you meet that limit
    - You can justify continued shipping until the derogation request is resolved
  - If you "do not know"
    - The derogation request does not apply
    - You can be subject to a stop shipment

Singapore POP

- **Notification**
  - PFOA / LCPFCA are currently restricted
  - Restriction of dechlorane plus and UV-328 in 2026
  - Because of their listings as POP under UN Stockholm Convention

- **Note**
  - 21. This Part applies to the hazardous substances specified in the first column of Part I of the Second Schedule except where —
    - (a) they fall within the exclusion specified in the second column of that Part corresponding to those substances; or
    - (b) they are contained in any substance, preparation or product specified in Part II of that Schedule

Environmental Protection and Management Act 1999

Status: Current version as at 05 Apr 2024

Singapore POP
Schedule II - Hazardous Substances

- **Part I (Restricted Substances)**

PART I

HAZARDOUS SUBSTANCES

Dechlorane plus	
Pentadecafluorooctanoic acid (PFOA); its salts and related compounds	
UV-328	

- **Part II (Exemptions) - *April 5 2024***

PART II

GENERAL EXEMPTIONS

Plastics other than those containing any of the following substances as defined in Part I of this Schedule: polychlorinated naphthalenes or short-chain chlorinated paraffins;

Rubber;

Which are most of the uses for the substances above

Singapore POP Exemptions (Opposite situation)

- **Non-exempt Uses (Part II)**
  - "Paints other than those containing any of the following substances as defined in Part I of this Schedule: asbestos, lead compounds, mercury compounds, Pentadecafluorooctanoic acid (PFOA) and its salts and related compounds, Perfluorohexane sulfonic acid (PFHxS) and its salts and related compounds, polychlorinated naphthalenes, or short-chain chlorinated paraffins;"

- Ie. PFOA in fluoroacrylate coatings of fabric are likely banned

Singapore POP

- **Short Summary**
  - Dechlorane plus, UV-328, and **PFOA** are banned without substance exemption for import, manufacture, or sale in Singapore
  - However, this ban does **not** extend to Dechlorane plus, UV-328, and **PFOA** in plastics or rubbers.
    - Which are what PFOA is found in
  - It is all very confusing

Canadian Plastic Reporting

- **Canada has announced a registry for reporting of all plastics in electronics and packaging.**

- Scope
  - Packaging
  - Single-use or disposable plastics
  - Electronic and electrical equipment
  - Agriculture products
  - Textiles
  - Automotive
  - Construction

EEE In Scope

- **Category 1: Electronic and Electrical Equipment (EEE), within the following subcategories:**

  (1) Electronic or electrical information technology or telecommunication devices or equipment

  (2) Electronic or electrical audiovisual and consumer equipment or media

  (3) Electronic or electrical appliances

  (4) Electronic or electrical tools, other than large-scale stationary industrial tools

  (5) Electronic or electrical lighting equipment

  (6) Electronic or electrical toys

  (7) Electronic or electrical sports equipment

  (8) Electronic or electrical devices for arts, hobbies or crafts

  (9) Electronic or electrical monitoring and control instruments

  (10) Electronic or electrical dispensers

  (11) Electronic or electrical medical devices or equipment

  (12) Accessories for use with any products referred to in Category 1

  (13) Photovoltaic panels

  (14) Chargers for battery-electric vehicles and plug-in hybrid electric vehicles, whether free-standing or wall-mounted

Single Use or Disposable Products

- **Category 8: Single-use or disposable products within the following subcategories:**

(1) Food service ware:

(a) Clamshell containers, lidded containers, boxes, plates, and bowls

(b) Takeaway cups

(c) Lids for takeaway cups

(d) Rigid ring carriers

(e) Foam trays

(f) Single-serve capsules and pods

(g) Bags provided by a retailer and filled within the store with produce or bulk products

(2) Personal hygiene and care products:

(a) Manual toothbrushes and replaceable toothbrush heads

(b) Disposable diapers and menstrual products

(c) Tubes for personal hygiene and care products

(d) Razors and razor heads

(e) Dental floss and flossers

(f) Cotton swab sticks

(g) Wipes

(3) Novelty items

(4) Tobacco and vaping products

(a) Tobacco products containing filters

(b) Vaping devices

(c) Vaping cartridges

(5) Personal protective equipment

(1) Masks

(2) Gloves

Canadian Plastics Registry
2025 Reporting

- **Products required to report in 2025**
  - Packaging
  - Single-use or disposable plastics
  - Category 1: Electronic and Electrical Equipment (EEE)

- **Deadline September 29 2025**
  - For products manufactured in or imported into Canada in 2024

Canadian Plastic Reporting
Reporting Requirement in 2025

- **Requirement**
  - Certification that information is true
  - Business identity and address
  - Plastic resin (imported or manufactured)
    - Identity of each resin (ABS, HDPE, etc..)
    - Source of resin (virgin, recycled, etc..)
    - Total quantity of each resin (in kg)
    - Method used to quantify the above

Claigan Process
Canadian Plastics Reporting

- **Short summary**
  - Very similar process to generator PFAS TSCA Report

  - **Phase 1 -**
    - Identify plastics in representative products
  - **Phase 2 -**
    - Create plastics reporting template for each representative product
  - **Phase 3 -**
    - Merge volume data with representative product information

  - Report to Canadian government (September 29 2025)

Claigan Environmental Upcoming Webinars

- **WHERE ARE ALL THE PFAS REGULATIONS AT TODAY?**
  - *Update on the fluid situation of PFAS regulation*
  - May 1 2024

- **CANADIAN PLASTICS REGISTRY**
  - *2025 Deadline for Reporting Plastics in Electronics and Packaging*
  - May 8 2024

- https://www.claigan.com/webinars/

PFAS Deadlines

- **2025**
  - In scope
    - EU PFOA/LC-PFCA Restriction (REACH and POP)
    - ~~Maine PFAS reporting (*consumer products*)~~
    - US TSCA PFAS Reporting (*except medical products*)
    - Australia PFOA/LC-PFCA Restriction (*except medical products*)
    - Canada PFOA/LC-PFCA Restriction (Canadian Prohibition) - *expected*
    - Canadian PFAS reporting (Section 71) - *maybe*

Q&A