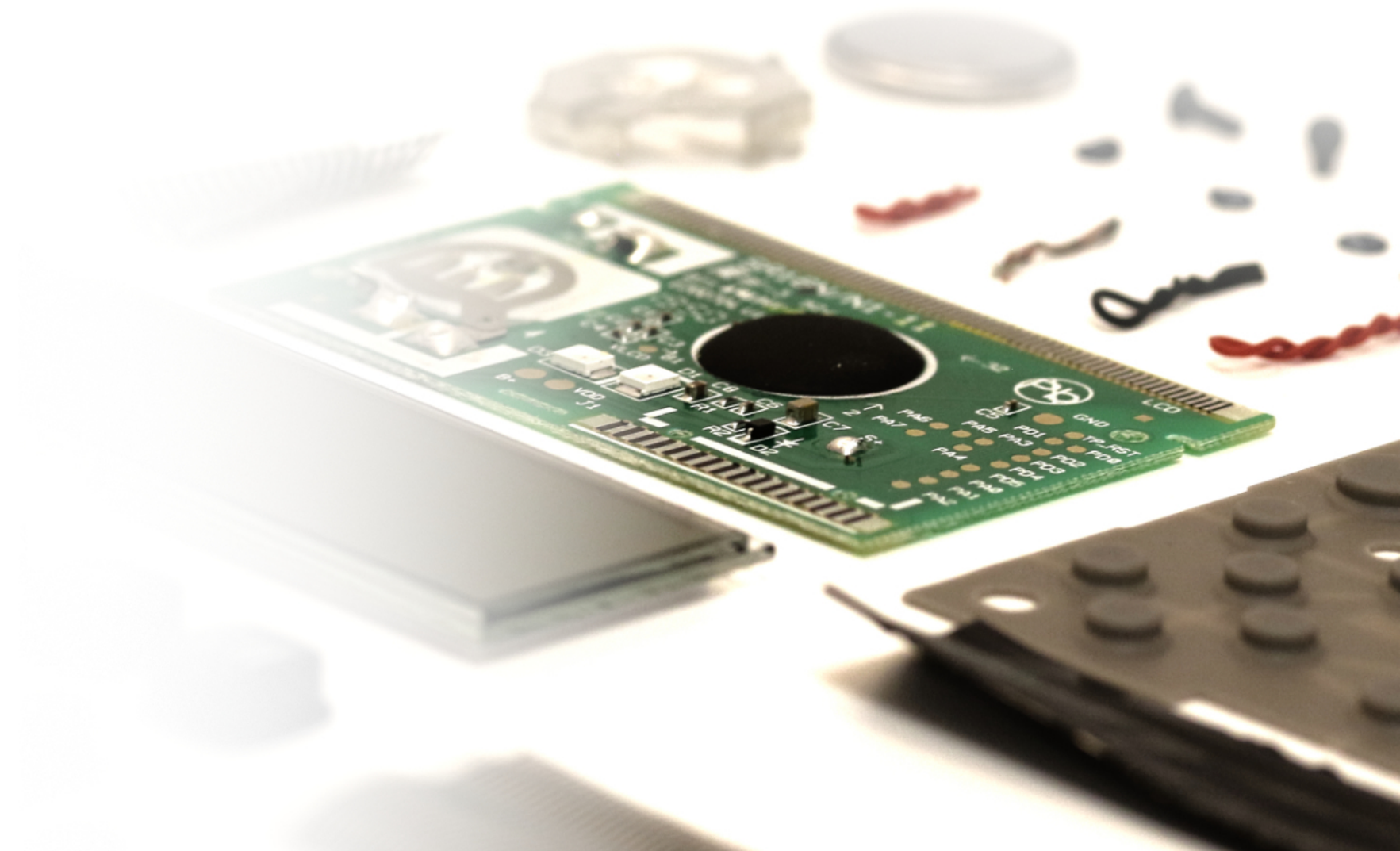


Opportunities for Advocacy *Restricted Materials in 2025*

Presented by:
Bruce Calder
VP Consulting

June 4, 2025



Opportunities for Advocacy

- Canadian Plastics Registry
- EU POP
- Minnesota PFAS
- EU PFAS Restrictions



Claigan Experience



Claigan is the only private company included in the PFAS regulations in 2024 at the United Nations (UN) Stockholm Convention.



European
Union

Claigan submitted industry's PFAS derogations and uses for Consultation to the EU.



Government
of Canada

Claigan submitted PFOA / LC-PFAC exemptions and uses to Canadian Government.



IChEMS
Industrial Chemicals
Environmental
Management Standard

Claigan submitted PFOA / LC-PFAC exemptions and uses to the Australian Government.



Claigan presented extensive PFAS report with large group of industry stakeholders to the US Federal Environmental Protection Agency.



MAINE DEPARTMENT OF
Environmental Protection

Claigan spearheaded extensive PFAS report with large group of industry stakeholders for Certain Unavoidable Uses (CUU) to the States of Maine and Minnesota



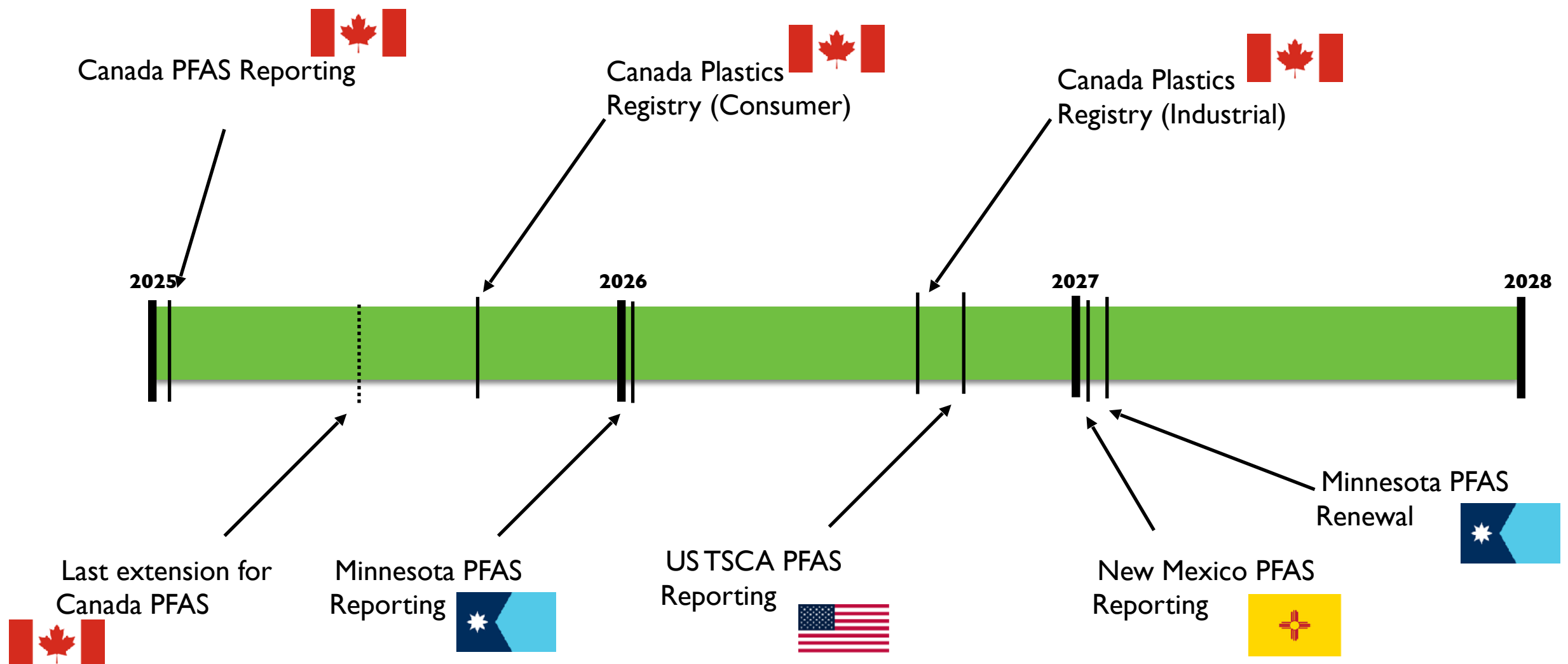
International
Organization for
Standardization

Claigan is a ISO 17025 Accredited Laboratory.

Advocacy Needs

- Could be with a national or regional authority
 - Examples
 -  Environment and Climate Change Canada
Environnement et Changement climatique Canada
 - ECCC Canada
 - Minnesota Pollution Control Agency 
- Could be with your industry
 - Updating and engaging association or industry members
 - Creating consensus
- Could be with internal stakeholders

Reminder



Actual Deadline

Estimated Deadline

Canadian Plastics Registry Consumer Electronics and Packaging

- Deadline for submission (Consumer)

Phase 1

- **September 29 2025**

- Deadline for submission (Industrial)

Phase 2

- **September 29 2026**

Scope of the Canadian Plastics Registry

Phase 1

September 2026

Phase 2

2025 Reporting
(For 2024 year)



Consumer Electronics



Consumer packaging



Specific single use plastics

If over 1 tonne of a category



Professional Electronics



Transportation



Apparel & Textiles



Professional Packaging



Construction

+



Warehouses



Stores / Restaurants



Hospitals

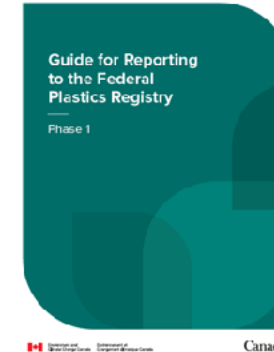


Schools

Canadian Plastics Registry Advocacy - Phase 2 Guidance

- **Press for release of Phase 2 Guidance**

- Phase 1 [guidance](#) is already released



- But no guidance for 2026 reporting
 - Professional electronics and packaging
 - Apparel
 - Automotive
 - Construction
 - Facility waste

Canadian Plastics Registry Advocacy - Phase 2 Guidance

- **Phase 2 reporting is due in fifteen (15) months**
 - For 2025 volumes
 - Product sales, and importation
 - Facility waste
 - Facility waste
 - Companies need to be tracking their waste in 2025
 - Volume of waste from employees, operations, etc..
 - Guidance in 2026 is too late
 - Most affected companies do not even know they are affected
 - Let alone - what to do about it.

Advocacy - Circulate ICI Waste Requirement

- **ICI Waste reporting requirement not well known**
 - Buried deep in the plastic registry
 - *“Phase 2 also introduces reporting on plastic waste generated at ICI facilities and plastic collected and sent for diversion and disposal for some categories.”*
 - Conservative estimate -
 - <1% of affected companies are aware of it
 - Or even know ICI means
 - industrial, commercial or institutional (ICI) facility
 - Examples - factories, stores, schools, hospitals, restaurants, offices, warehouses, funeral homes, nursing homes, and so on.

Canadian Plastics Registry

Advocacy - Out of Scope Materials

- **Believed to be out of scope**

- Metal



- Glass and ceramic



- Rubber



- Cellulose (wood, paper, and cellulose based fibres)



Rayon

Canadian Plastics Registry

Advocacy - Out of Scope Materials

- **Examples in apparel**

- Natural cellulose
 - Cotton
 - Linen
 - Hemp
- Regenerated cellulose fibers
 - Viscose (Rayon)
- Plastics
 - Polyester
 - Nylon

**OUT OF
SCOPE**

**OUT OF
SCOPE**

In Scope

Canadian Plastics Registry

Advocacy - Out of Scope Materials

- **Potential Roles of Advocacy**
 - Create consensus among stakeholders
 - Develop unified position
 - If everyone is 'wrong' then no one is 'wrong'
 - Confirm with ECCC
 - But consensus is more important

Canadian Plastics Registry

Advocacy - Average Assemblies

- **Average Bill of Materials**
 - Allowed approach for products in the Plastics Registry
 - But can it be extended to assemblies
 - Most electronics have different housing
 - But the assemblies are very similar

Canadian Plastics Registry

Advocacy - Average Assemblies

Models for assemblies

Internal



& External



+ major assemblies

- Wiring
- Circuit boards
- Pumps and compressors



Average Bill of Material approach is more important for assemblies than products

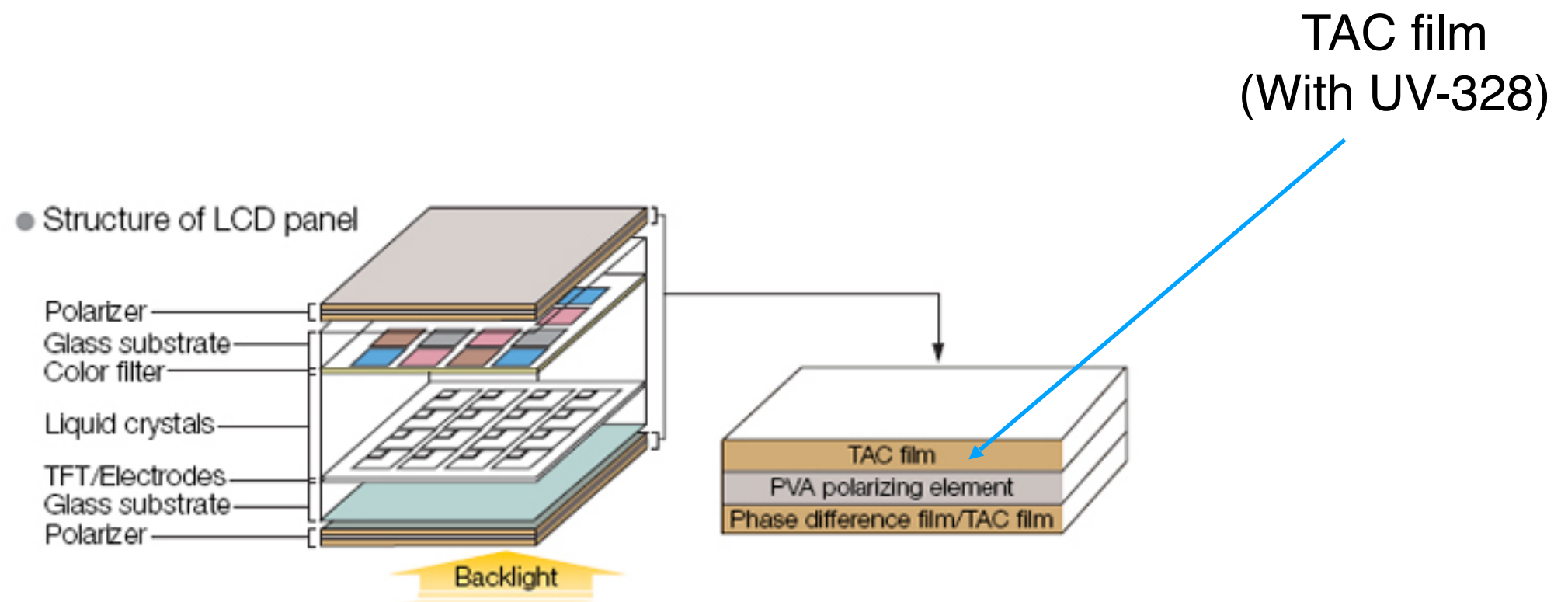
Canadian Plastics Registry

Advocacy - Average Assemblies

- **Potential roles of Advocacy**
 - Create consensus among stakeholders
 - Develop unified position
 - If everyone is 'wrong' then no one is 'wrong'
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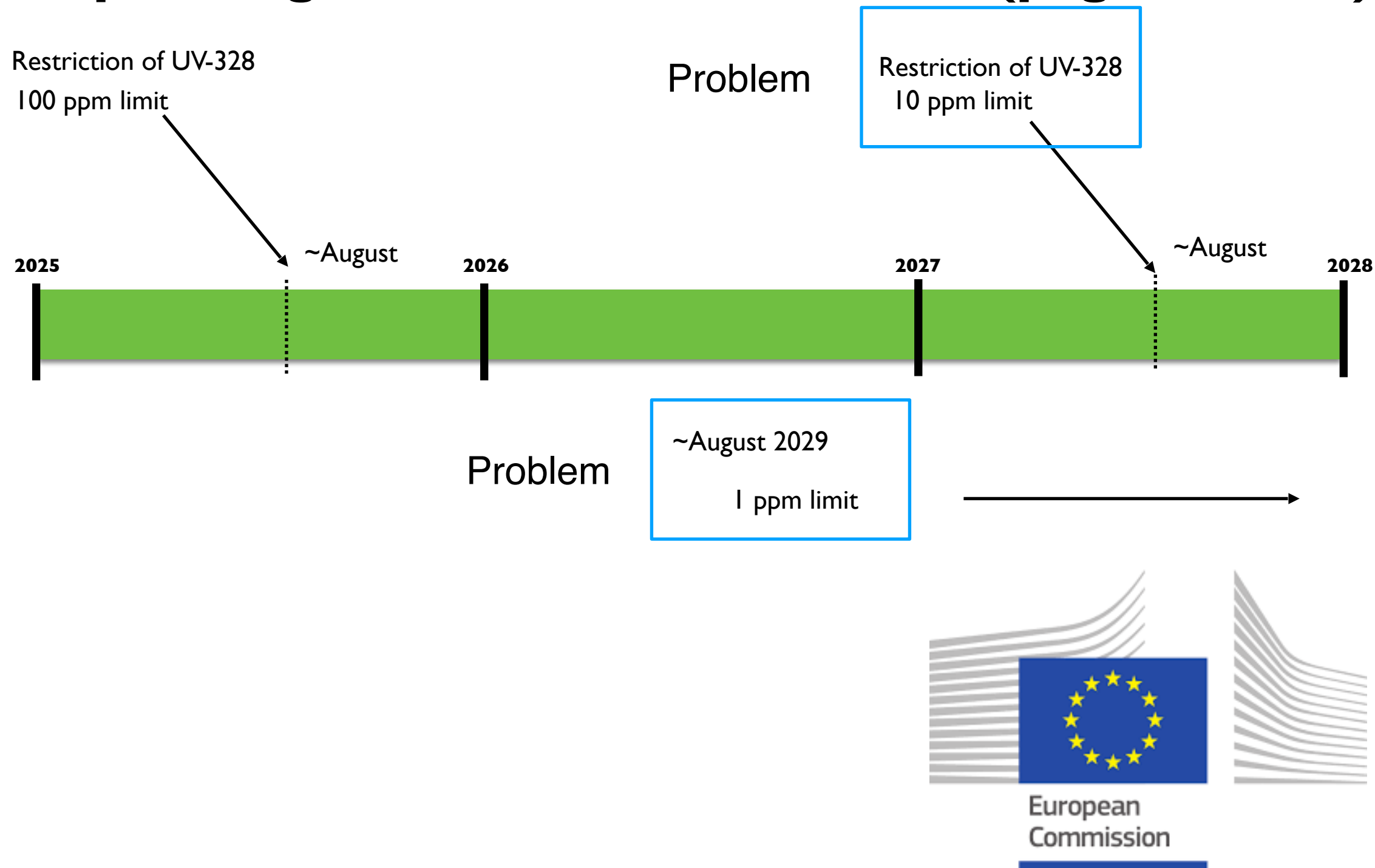
Advocacy - UV-328

- **UV-328 contained in**
 - Triacetyl cellulose (TAC) film in polarisers
 - Common in LCD screen (~5,000 ppm)
 - Generally exempted from restriction until 2030



EU UV-328 POP Restriction

- **Upcoming UV-328 restriction in [EU](#) (page bottom)**



Polarizer exemption for UV-328 to 2030

- Pretty low risk in recycled plastic
 - At least to 100 ppm

[illegible]

Canadian Plastics Registry

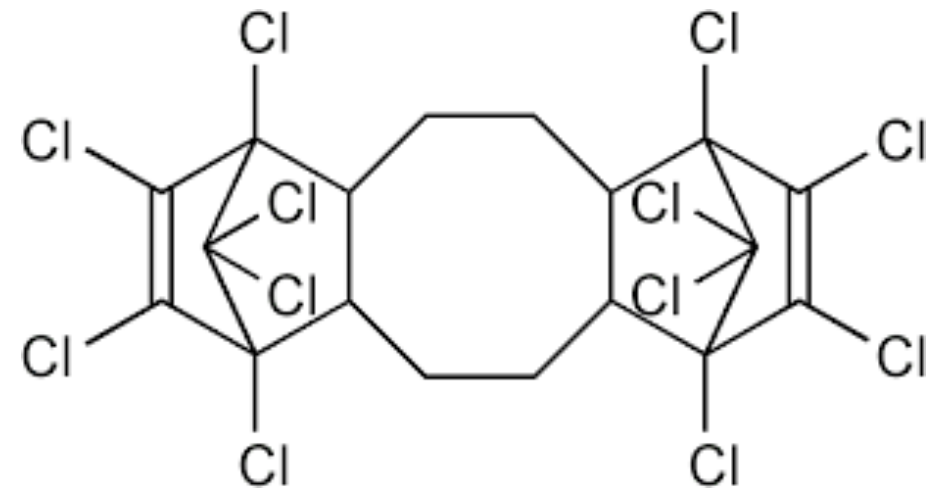
Advocacy - EU POP UV-328 Limit

- **Role of Advocacy**

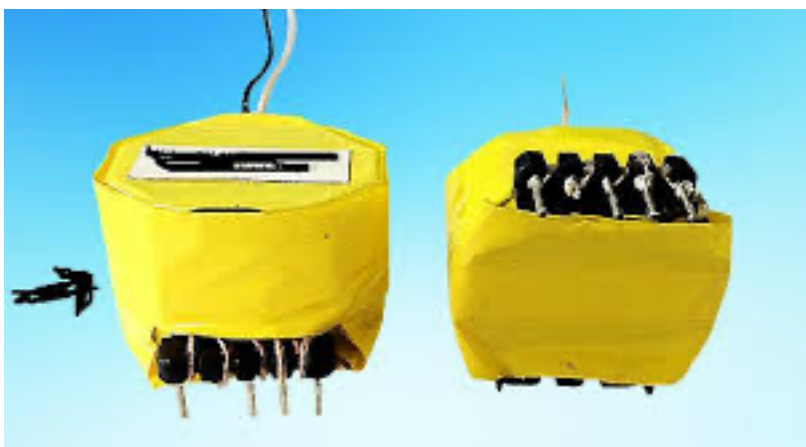
- Highlight to EU that this is likely a ban on recycled material
- Restriction needs more work or a 're-think'
- The 10 ppm limit will make no significant difference in UV-328 levels in the environment
 - The problem is related to recycled material
 - Which is already on the market
 - New regulation has no effect on that

Advocacy - Dechlorane Plus

- **Dechlorane Plus**
 - Chlorinated gas phase flame retardant



- **Low risk in non-electronics**
 - Primarily used historically in heat shrink and polyester tape



1,219,842 articles in SCIP database with Dechlorane Plus

The majority of which are outdated :-)

EU Dechlorane Plus POP Restriction

- **Upcoming DP restriction in [EU](#) (page bottom)**

Restriction of DP
1,000 ppm limit

Problem

Restriction of DP
1 ppm limit

2025

~August

2026

2027

2028

~Feb



Exempted in spare parts until December 2043

EU New Restriction Residual Dechlorane Plus

- **Submission from EU Waste industry**
 - Low risk at high concentrations in waste
 - 1 ppm limit is an issue

Table 1 Results of the PRE Measurement Campaign. * There are considerable uncertainties in the reported values including the limit of quantification (see text below).

SampleID	Recycling Sector	Source Material	Polymer	Dechlorane Plus* (mg/kg)
24V0001	WEEE/ELV	WEEE - SDA	PS/ABS/PP	<1.0
24V0014		ELV - Bumpers	PP	<1.0
24V0009		ELV - ASR	PE/PP	<1.0
24V0015		WEEE/ELV - Mixed SLF/ASR	PE/PP	<1.0
24V0025		WEEE - LDA	PP	<1.0
24V0030		WEEE - TEE	PS	<1.0
24V0038		WEEE - CRT/FPD/Small IT	PS	<1.0
24V0043		WEEE/ELV- Mixed SLF/ASR and Bumpers	PP	<1.0
24V0049		WEEE - SLF	ABS	<1.0
24V0057		WEEE - SLF	PS	3.1
24V0058		General Household	PE/PP	<1.0
24_C0001	PVC	Window Profiles	PVC	<1.0
24_C0005		PVC Film	PVC	<1.0
24_C0011		Construction Profiles	PVC	<1.0
24_C0008		Window Profiles	PVC	<1.0
24_E0005	HDPE	Drums/IBCs	HDPE	<1.0
24_E0015		Bulky Plastics from Container Park	HDPE	<1.0
24_E0016		Wheelie bins	HDPE	<1.0

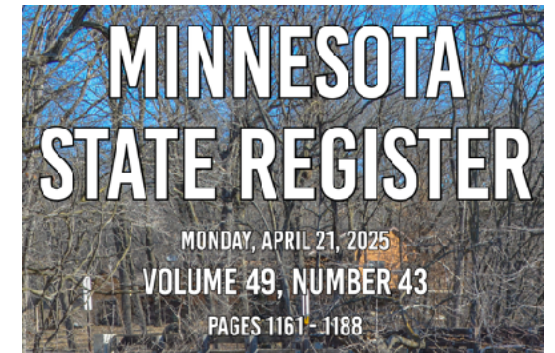
Advocacy - EU POP Dechlorane Plus Limit

- **Role of Advocacy**

- Highlight to EU that this **is a ban** on recycled material
- Products using dechlorane plus have >1,000 ppm Dechlorane
- A 1 ppm limit will make no significant difference in Dechlorane Plus levels in the environment
 - The 1 ppm problem is related to recycled material
 - Which is already on the market
 - New regulation has no effect on legacy products
 - And it will be decades before it is all cleared out

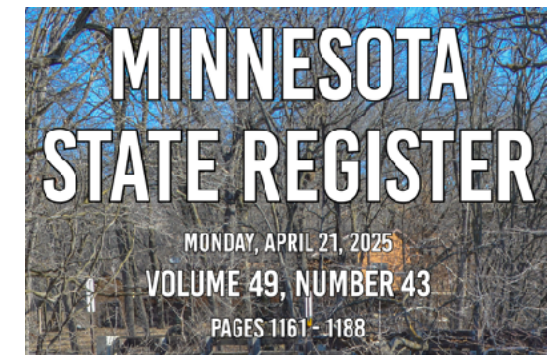
Canadian Plastics Registry Advocacy - Minnesota PFAS

- **Minnesota published [PFAS reporting rule](#)**
 - PFAS Reporting due **Jan 1 2026**
 - All products sold in Minnesota are in scope
 - More detailed statement of reasons [here](#)



Minnesota PFAS Advocacy - Consultation

- **Minnesota has a continued reporting period**
 - Updated [consultation](#)
 - Until June 23 to add to consultation
- Notes
 - Two (2) consultations
 - New input
 - Rebuttal of everyone else's comment
 - Final decision by a judge



Advocacy - Submission Format

- **Submission Format**
 - Is it any format we want?
 - How do we know that format will be accepted?
 - Especially with all the due diligence provisions
 - Claigan format
 - Excel file with a tab for each product line
 - Best available
 - But is that good enough?
 - Role of advocacy
 - Reduce the fear and uncertainty

Advocacy - Align PFAS Functions

- **Consensus on Functions**
 - Main reporting requirement for Minnesota
 - Function of PFAS in component
 - This is main Minnesota PFAS reportable
 - What
 - And why (function)
 - Advantage of consensus of function
 - Common language
 - Significant advantage of advocacy
 - The plan -
 - **Simplify argument for continued use of PFAS**

Advocacy - Align PFAS Functions

- **Strong point**
 - Reporting is an advocacy on its own
 - If industry reports using a fluoropolymer
 - It is much harder to restrict
 - Restriction ‘friction’
 - If a PFAS is reported
 - Impact assessment needed
 - And most fluoropolymers are benign
 - And far safer than their replacements
 - Also very important that professional products are not ‘sold out’ by consumer products

New Mexico PFAS

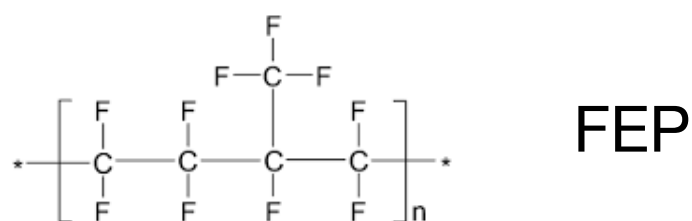
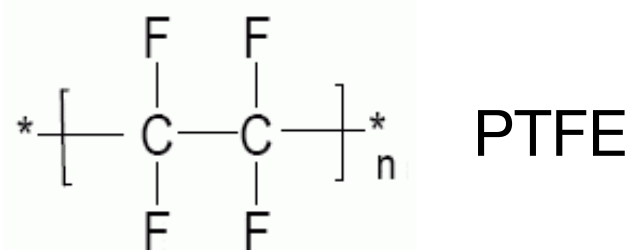
'The Future'

- **New Mexico to publish new PFAS Law**
 - PFAS ban in 2032
 - PFAS Reporting in 2027
- Exemptions
 - Most professional products
 - Most fluoropolymers
 - a product that contains fluoropolymers consisting of polymeric substances for which the backbone of the polymer is either a per- or polyfluorinated carbon-only backbone or a perfluorinated polyether backbone that is a solid at standard temperature and pressure.

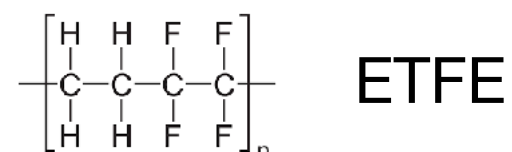
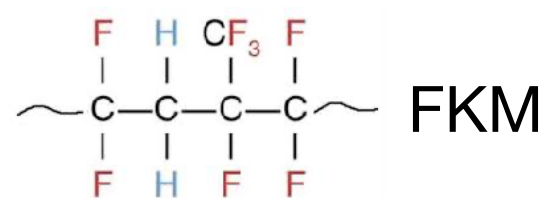
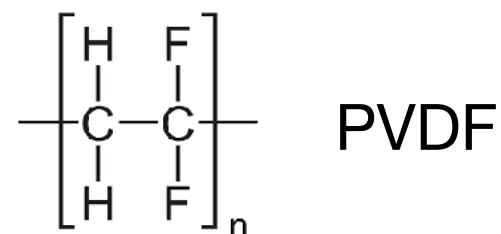
New Mexico PFAS

Exempted Fluoropolymers

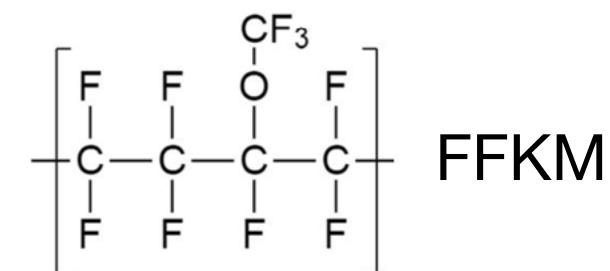
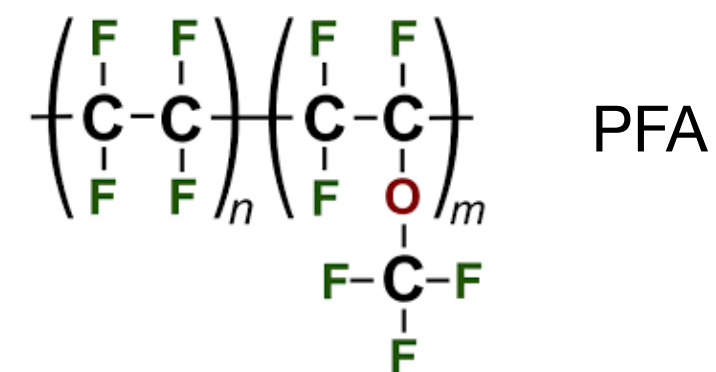
Perfluorinated Backbone



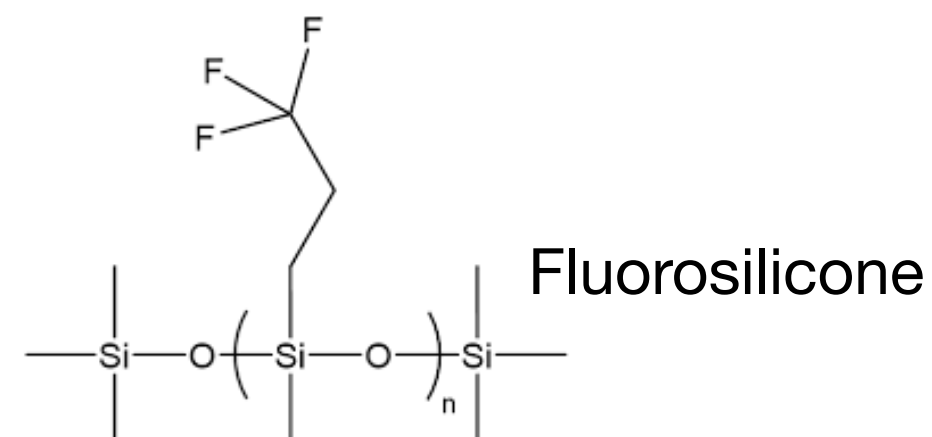
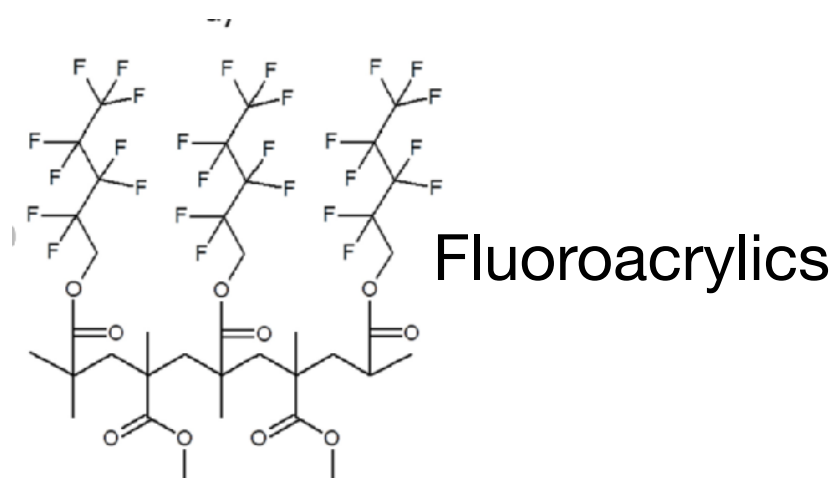
Polyfluorinated Backbone



Solid Polyether



Not exempted



EU REACH Restrictions Advocacy - PFAS

- **Strong momentum**
 - Separating fluoropolymers from
 - Water soluble PFAS salts

Two Types of PFAS in Products

Fluoropolymers



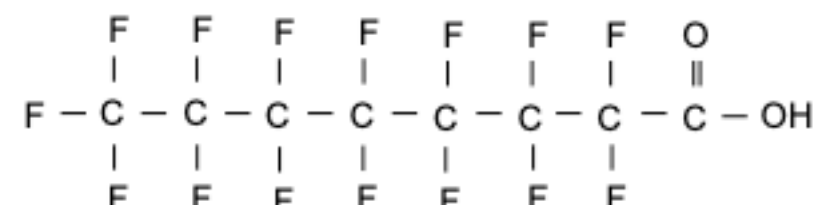
PFAS that you add to your products



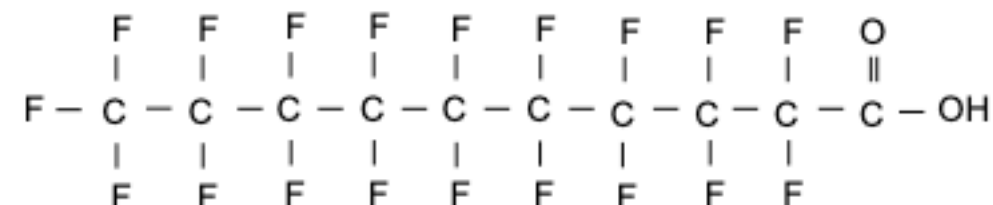
Not generally restricted

PFAS Salts

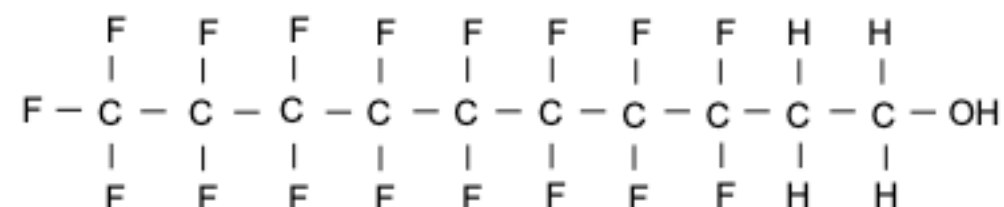
PFOA



PFDA



8:2 FTOH



Water soluble PFAS salts
That degrade from specific fluoropolymers



Commonly restricted

EU REACH Restrictions Advocacy - PFAS

- **Reality**
 - Most fluoropolymers
 - a. Are completely benign
 - b. Do not contain **ANY** PFAS found in water or humans
 - c. Do not degrade into **ANY** PFAS found in water or humans
 - d. Are much **safer** than their replacements
 - Silicone contains 1,000X the forever chemicals as PTFE
 - Acrylics are a major allergen
 - PVC is often full of the chemical that causes ADHD
 - Polyurethane is 'cyanide' based

Claigan Youtube Channel

Claigan Environmental
@claiganenvironmental8047 • 306 subscribers • 72 videos
Claigan is the leading provider in restricted materials compliance (consulting and ...more
[claigan.com](#) and 3 more links
Subscribed

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- **A wide range of educational videos**
 - Includes webinars, educational series, and short summaries of upcoming deadlines. [Claigan Youtube](#)

Advocacy Opportunities in 2025

- **Significant Opportunities**

- Canada Plastics Registry



Government
of Canada

Gouvernement
du Canada

- EU POP Restrictions



- UV-328
- Dechlorane Plus

- Minnesota PFAS



- EU PFAS Restrictions



Q&A