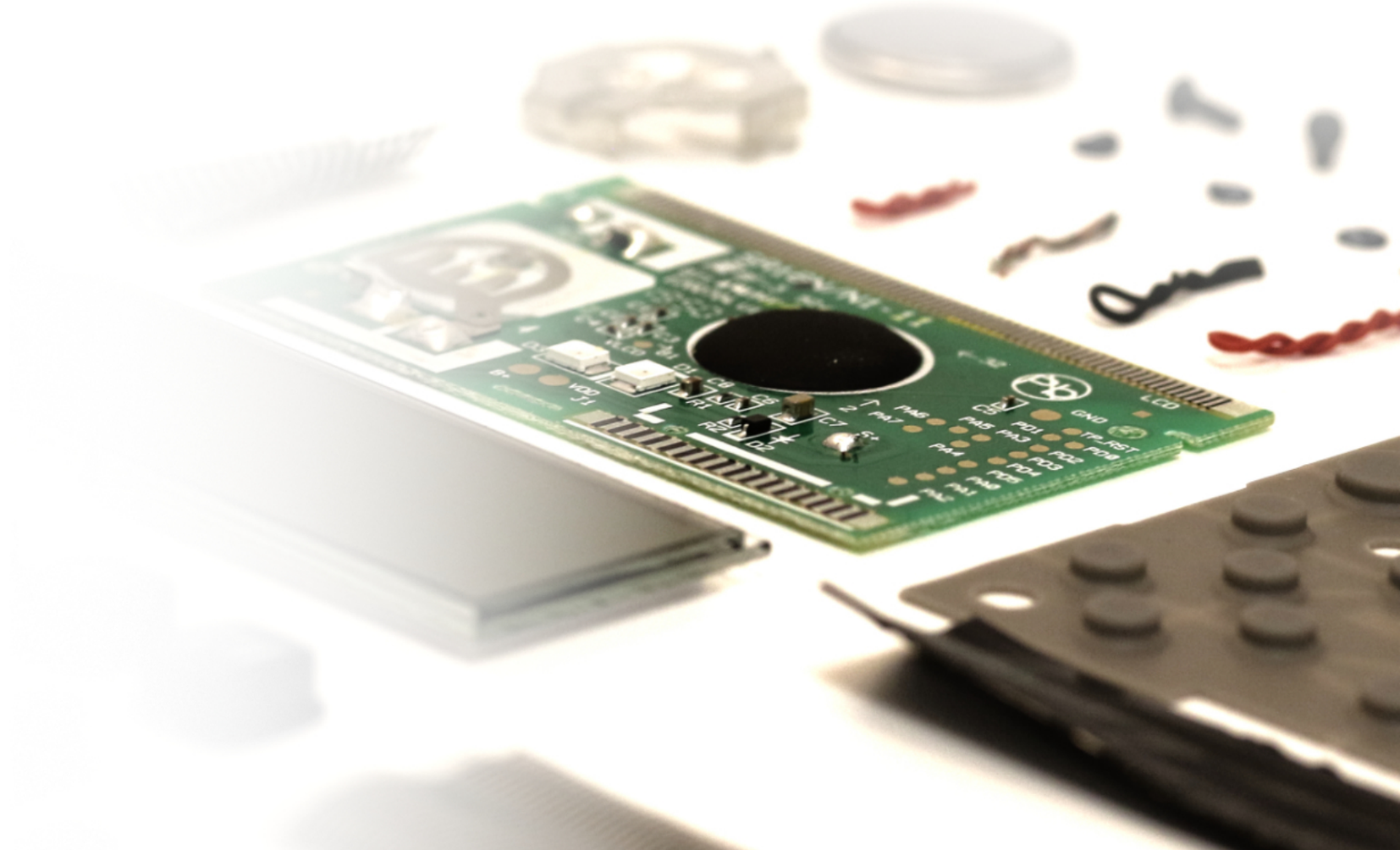
Claigan
Less Journey. More Results.

Steps - Canada PFAS and Plastics Registry Claigan Webinar

Presented by:
Bruce Calder
VP Consulting

October 16, 2024



Overview - Agenda

- Canadian PFAS
  - Brief summary
  - Key notes
  - Scope summary
- Canadian PFAS - Example Company
  - Step 1 - Questionnaire
  - Step 2 - Actions
  - Step 3 - Reporting
- Canadian Plastics Registry - Example Company
  - Key notes
  - The 'Old Fashioned Way'
  - The Better Way
  - Example company
- Q&A

Canadian PFAS Reporting
Brief summary

- **Mandatory Data Gathering**
  - Section 71 Notice under Canadian Environmental Protection Act (CEPA)

- **Importers and manufacturers of specific PFAS in**
  - Chemicals, and
  - Physical products (articles)

- **By January 29 2025**

PFAS Reporting Canada
Key Notes

- **Canada PFAS is three (3) lists of specific PFAS**
  - Not all PFAS (unlike US TSCA reporting)

- **List 1 (part 1 of the notice)**
  - >10g of a reportable PFAS per annum in your product (chemical or article). Generally liquids and salts

- **List 2 and 3 (part 2 & 3 of the notice)**
  - >100kg of a reportable fluoropolymer or fluoroether per annum in your product (chemical or article), or

Canada PFAS Reporting Burdensome approach

- **Where a lot of companies go wrong**
  - Create a complicated plan to gather data from all suppliers
  - Review the reportable chemicals and outputs afterwards
- **At which point, they would have often have to re-start**

Canada PFAS Reporting
Step 1

- **Step 1 - Review the chemicals in scope**
  - Do these chemicals apply to your products?
  - Can they possibly be in your products at a reportable level?
  - This is how Claigan starts every new Canada notice

- Technical. Most companies do not have chemists available with the necessary information

- **Claigan does**
  - And the effort (cost) of the work is spreading over Claigan large client base

Canada PFAS Reporting
Step 1 - Questionnaire

- **Claigan has simplified the project start to a series of questions**

Question (in relation to Canada)	Y/N
Do you import any products intended for or used by consumers?	No
Do you import any articles (such a electronics or chairs)?	Yes
- if yes for articles, do you import over 100,000 articles per year?	No
Do you import any clothing?	No
- if yes for clothing, then do you import any stain resistent, waterproof or winter outdoor clothing?	No
- if yes for clothing, then do you import any shoes or other footwear?	No
Are any of your articles intended for children (<14 years)?	No
Do you import any cosmetics or skincare products?	No
- if yes for cosmetics/skincare - Do any of your cosmetics include an ingredient with 'fluoro' in the name? Excluding fluorphlogopite.	No
- if yes for cosmetics - Do any of your cosmetics include PTFE as an ingredient?	No
Do you import any electronics or electrical appliances?	Yes
- if yes for electronics/electrical appliances, do you import over 1,000 electronic devices per year?	Yes

- Instead of boiling the ocean -
  - Focusing of what is relevant to your reporting

Company Example
Based on Public Available Information

- **The next slides are for the review of a tangible example company**

- **Notes**
  - Tangible is better
  - All based on publicly available information
  - Some assumptions were added for example and process

Public example chosen

- **Complex Business**
  - Furniture, Electronics, Food, Packaging, Lighting, Appliances, etc.
- They have good public materials data
- And are very tangible to a wider audience





Example Questionnaire Output

Example Questionnaire Output

Question (in relation to Canada)	Y/N
Do you import any products intended for or used by consumers?	Yes
Do you import any articles (such a electronics or chairs)?	Yes
- if yes for articles, do you import over 100,000 articles per year?	Yes
Do you import any clothing?	No
- if yes for clothing, then do you import any stain resistent, waterproof or winter outdoor clothing?	No
- if yes for clothing, then do you import any shoes or other footwear?	No
Are any of your articles intended for children (<14 years)?	Yes
Do you import any cosmetics or skincare products?	No
- if yes for cosmetics/skincare - Do any of your cosmetics include an ingredient with 'fluoro' in the name? Excluding fluorphlogopite.	No
- if yes for cosmetics - Do any of your cosmetics include PTFE as an ingredient?	No
Do you import any electronics or electrical appliances?	Yes
- if yes for electronics/electrical appliances, do you import over 1,000 electronic devices per year?	Yes
Do any of your products contain the lubricant 'Krytox' (PFPE - perfluoropolyether)?	No
Do you import any cookware?	Yes
- if yes for cookware, do you import over 1,000 teflon (PTFE) coated cookware a year?	Yes
Do import any food packaging or takeout containers?	Yes

High volume of electroni

Textiles

PTFE coated cookware

Outdoor furniture

Food container

Action from Questionnaire Responses

High volume of electronics

- **Additional investigation required**
  - Claigan has a process mapping for electronics and Canada PFAS
    - *'Actions that need to be completed'*
    - Takes more work than most PFAS responses

- Likely reportable situation in this example

PTFE as anti-drip

Action from Questionnaire Responses

Textiles

- **Additional investigation required**
  - Fluoroacrylic coatings
    - *'Actions that need to be completed'*

Similar processes for

Outdoor furniture

Food container

- Likely **NOT** a reportable situation
- Most fluoroacrylics are not on the positive list
- But would warrant a '*Declaration of Stakeholder Interest*'

Action from Questionnaire Responses

PTFE coated cookware

- **Additional investigation required**
  - Calculation of mass of PTFE
  - Likely a reportable situation if over 5,000 pans per annum

Likely PFAS Reporting

- Reporting required
  - **PTFE as anti-drip**
    - Non-human contacting
    - Simplified reporting

High volume of electronics

  - **PTFE as pan coating**
    - Food contacting
    - Complex reporting

PTFE coated cookware

Ikea
Optional PFAS Reporting

- Optional reporting
  - **Fluoroacrylic in textiles**
    - Not a listed PFAS

Textiles

Outdoor furniture

- **Declaration of Stakeholder Interest**
  - Letter outside of normal reporting
  - Identify that fluoroacrylics are used in the textiles industry
  - Effective method to ensure
    - Canada is aware PFAS in used in Canada
    - And not to regulate without consultation

Canada PFAS Reporting
Steps 1 to 3

- **Step 1 - Review the chemicals in scope**
  - Do these chemical apply to your products?
  - Can they possibly be in your products at a reportable level?
- **Step 2 - Take actions based on Step 1**
  - Based on the applicable substances / applications
    - Pursue those small number of applicable situations
- **Step 3 - Complete reporting**
  - Complete simple or complex reporting (as warranted)
  - Optionally - submit declarations of stakeholder interest
  - If no reportable or interest PFAS
    - Declaration of Non-Engagement

Canadian Federal Plastics Registry

- **Mandatory requirement to report plastics in**
  - Packaging, and
  - "Plastic products"

- **First Deadline September 29 2025**

If over 1 tonne per annum of applicable plastic products

Canada Gazette, Part I, Volume 158, Number 16: GOVERNMENT NOTICES

April 20, 2024

DEPARTMENT OF THE ENVIRONMENT

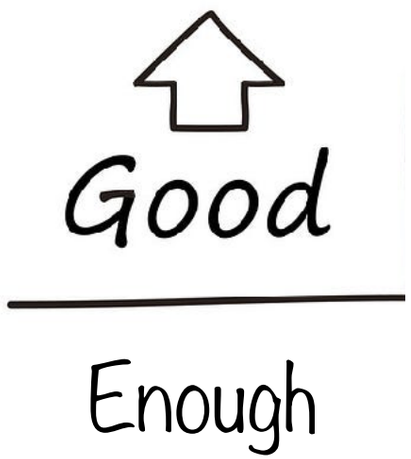
CANADIAN ENVIRONMENTAL PROTECTION ACT, 1999

Notice with respect to reporting of plastic resins and certain plastic products for the Federal Plastics Registry for 2024, 2025 and 2026

Canadian Plastics Registry
Key Note #1

- **Canadian Government Expectation**

Year 1 Year 2 Year 3



Canadian Plastics Registry
Key Note #2 - Reporting 2025 vs 2026

Residential Waste

2025 *“Consumer”*

Institutional Waste

2026 *“Institutional”*

Scope of the Canadian Plastics Registry

2025 Reporting
(For 2024 year)

Consumer Electronics
Including medical devices

Consumer packaging

Specific single use plastics

2026 Reporting
(For 2025 year)

Professional Electronics
Including medical devices

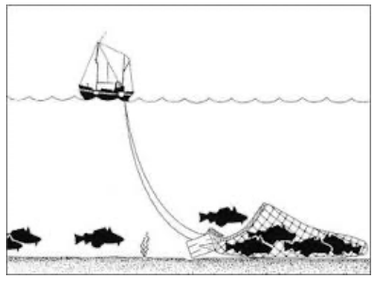
Professional Packaging

Apparel & Textiles

And…..

Transportation

Construction



Fishing
And agriculture

Canadian Federal Plastics Registry

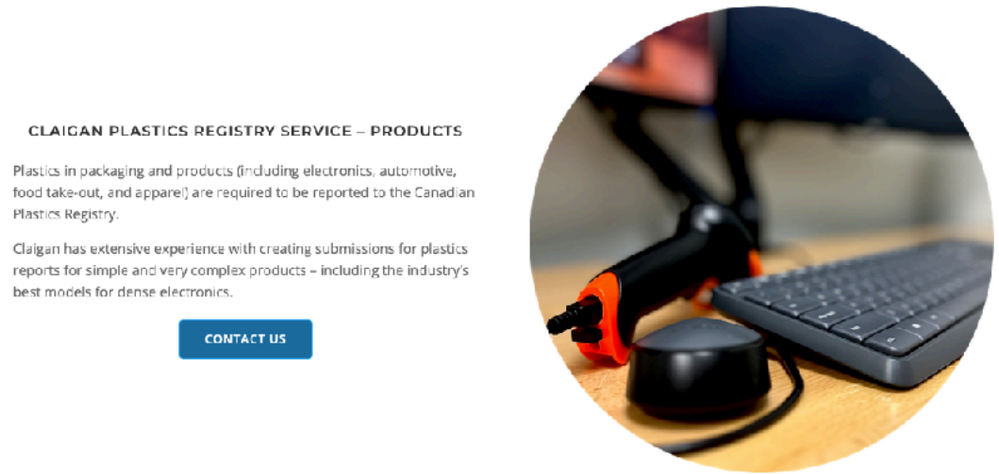
Facility Waste

- **Industrial / institutional waste**
  - From
    - Manufacturing operations
    - Employee waste
    - Restaurant services
  - In Canada

2026 Reporting

For quickly approaching 2025 year

Claigan Plastic Registry



Claigan - Plastics Registry - Products

Claigan - Plastics Registry - Waste

www.claigan.com

https://www.claigan.com/canada-cepa/

Example Ikea Product

- Example **individual product** output

Product	Hanging Lamp Cord Ikea Samples			
Date Evaluated	10/2/2024			
Product Weight (including packaging in g)	413			
Plastic Compositon	48.61%			
Method used	Specific component identification method			
	Product	**Textiles**		**Packaging**
	g	**g**	**%**	**g**
2811211 Polyethylene terephthalate (PET) resins	21.54	0	5.22%	0
2811219 Other thermoplastic polyester resins	6.02	0	1.46%	0
2811221 Low-density polyethylene (LDPE) resins	0.00	0	0.00%	1.41
2811222 Linear low-density polyethylene (LLDPE) resins	0.00	0	0.00%	0
2811223 High-density polyethylene (HDPE) resins	0.00	0	0.00%	0
2811229 Other polyethylene resins	13.40	0	3.24%	0
2811231 Polystyrene (PS) resins	0.02	0	0.01%	0
2811291 Acrylonitrile-butadiene-styrene (ABS) resins	0.00	0	0.00%	0
2811292 Polyvinyl chloride (PVC) resins	96.47	0	23.36%	0.75
2811293 Polypropylene (PP) resins	0.88	0	0.21%	0
2811294 Thermoplastic polyurethane (TPU) resins	0.00	0	0.00%	0
2811295 Polyamide (PA, nylon) resins	0.30	0	0.07%	0
2811299 All other thermoplastic resins, n.e.c.	59.97	0	14.52%	0
2811411 Bio-based thermoplastic resins	0.00	0	0.00%	0
2811412 Petroleum-based biodegradable thermoplastic resins	0.00	0	0.00%	0
2811311 Phenolic (PF) resins	0.00	0	0.00%	0
2811312 Urea formaldehyde (UF) resins	0.00	0	0.00%	0
2811319 All other formaldehyde-based resins	0.00	0	0.00%	0
2811391 Thermosetting unsaturated polyester (UPR) resins	0.00	0	0.00%	0
2811392 Thermosetting polyurethane (PU) resins	0.00	0	0.00%	0
2811399 Other thermosetting resins, n.e.c.	0.00	0	0.00%	0
2811413 Bio-based thermoset resins	0.00	0	0.00%	0
Total Weight (Plastics)	198.6	0	48.09%	2.16
Gross Weight (Plastics) - Product, Textiles, and Packaging	200.8			

Havris Hanging Lamp

Ring holder

Cable Internals (Model)

White clip

Material

Ceiling cord set:
PVC

Hanger:
Acetal plastic

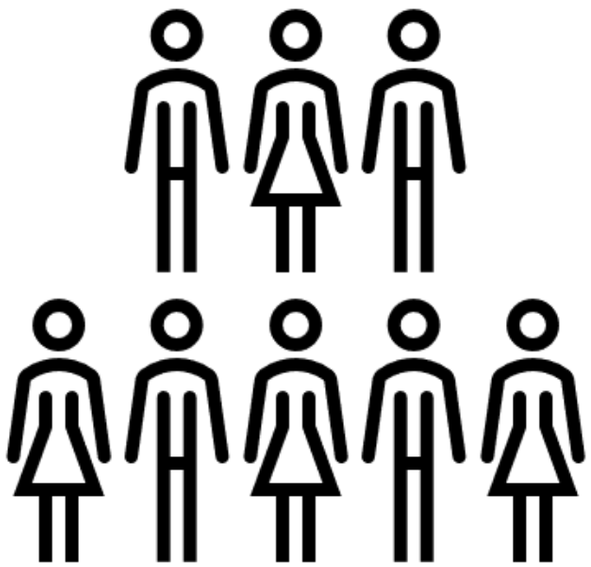
Lampholder cup:
Polycarbonate plastic (min. 50% recycled)

Shade ring:
Polyester

If you did Plastics Registry The 'old fashioned way'

- **Where a lot of companies go wrong**
  - Create a complicated plan to gather data from all suppliers
  - Try to integrate the data afterwards
- **At which point, they would figure out that they have to 'fix' most of the data anyways**

The '*Old Fashioned Way*' Corporate Functional Area Scope



- Executive Committee
  - Supply VP, Sourcing VP, R&D VP, Finance, Product Management Lead
- Steering Group
  - Supply Director, Factory GM, Sourcing Director, Quality Director, Product Management Lead
- Execution Group
  - Program/Project Manager, Quality, Finance, Product Management, Finance, Master Data/IT, Legal, Product Test, Procurement, Factory Process Engineering

The 'Old Fashioned Way'
Corporate Plastics Registry Project

Claigan

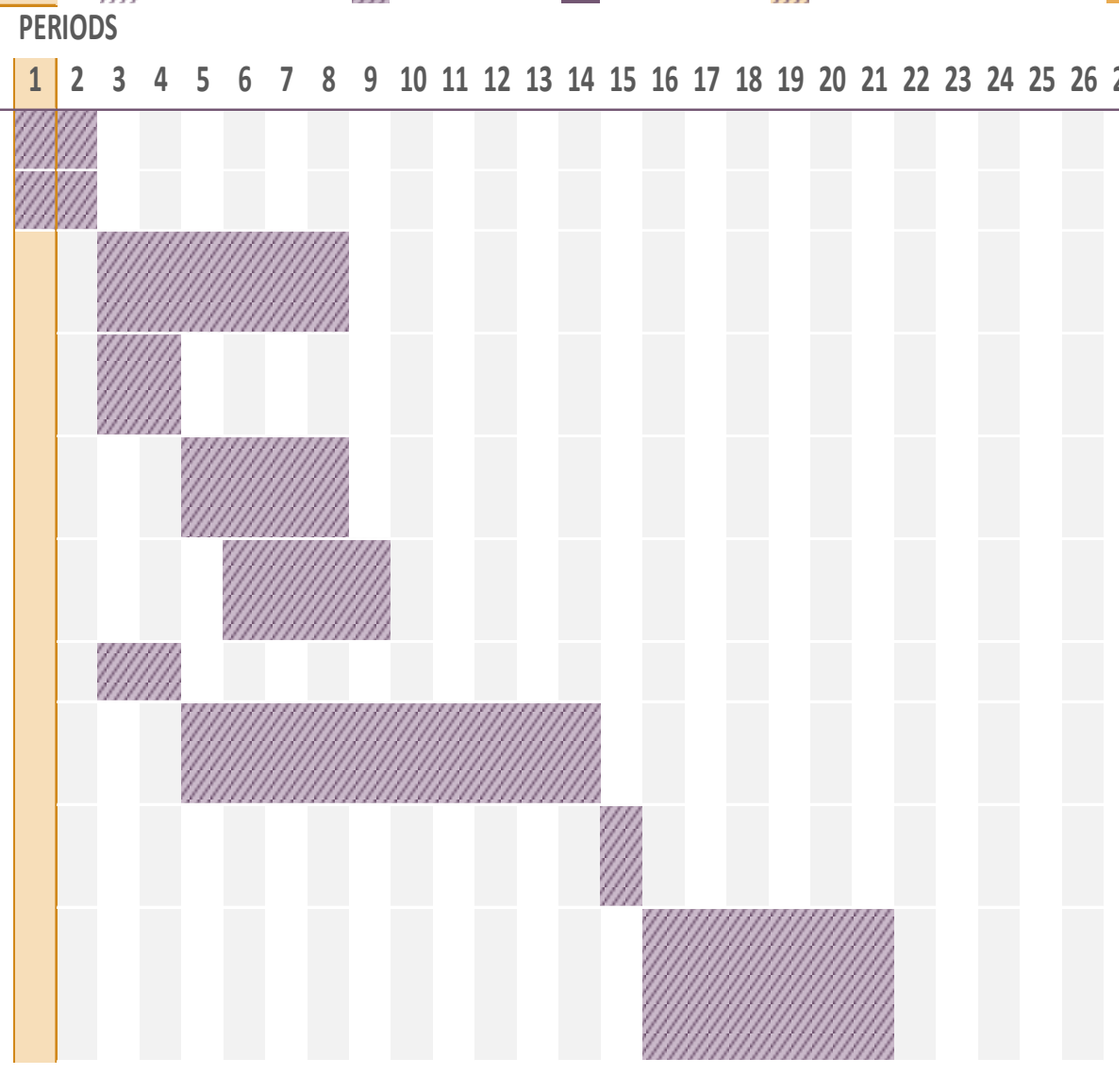
Project Planner

Select a period to highlight at right. A legend describing the charting follows.

Period Highlight: 1

Plan Duration | Actual Start | % Complete | Actual (beyond plan)

ACTIVITY	PLAN START	PLAN DURATION	ACTUAL START	ACTUAL DURATION	PERCENT COMPLETE
Project Scope Establishment	1	2	1	2	0%
Regulation SME	1	2	1	2	0%
Build Product Categories In house products	3	6	3	6	0%
Build Factory/Product Questionnaire for product plastic and packaging	3	2	3	2	0%
Factories to populate master data for all internal products	5	4	5	4	0%
Sample validation testing on 5% Internal products	6	4	6	4	0%
Build Vendor Questionairre for 3PP	3	2	3	2	0%
Submit and Secure 3PP Vendor Product and Packaging Details	5	10	5	10	0%
Consolidation of Product and Shipment data by volume or weight for 2024	15	1	15	1	0%
Consolidation of Question and Shipment Data to Establish and File Plastics summary per regulation	16	6	16	6	0%



The 'Old Fashioned Way'
Summary Project Resource Costs

Activity Scope	Functional Support	Total Headcount time allocation for duration	Estimated Time Requirement (Days)	Assumptions	Total HC Days		
Project Scope Establishment	Project Manager/Quality Prime	1.5	10	Establishment of full project requirements in scope products and activities	15		
Regulation SME	Quality Prime/Legal	1.5	10	Timeline to establish expertise and legal review of regulatory statute	15		
Build Product Categories In house products	Product Prime/Design Engineer	3	15	Approximately 5k internal products across 54 factories. 2k Fit electronics scope for 2025, All require packaging details	45		
Build Factory/Product Questionnaire for product plastic and packaging	Quality Prime/Project Manager	2	10	Establish Factory and Product level questionnaire for SKU being manufactured to capture the plastic material, packaging and volumes for 2024	20		
Factories to populate master data for all internal products	Factory Quality Prime/Product Managers/Master Data/Process Engineer	4	20	All Factory and Product Mangers would populate requirements on products they ship and plastics used and shipped in 2024	80		
Sample validation testing on 5% Internal products	Lab Tech/External Resource	2	20	Due Diligence validation on sample product and packaging types.. Estimated product cost $25k	40		
Build Vendor Questionairre for 3PP	Quality Prime/Procurement	2	10	Establish Product level questionnaire for SKU being manufactured to capture the plastic material, packaging and volumes for 2024	20		
Submit and Secure 3PP Vendor Product and Packaging Details	Procurement/Master Data	3	50	Approximately 8k products across 200 Vendors. 1k Electronics product scope all would require packaging scope	150		
Consolidation of Product and Shipment data by volume or weight for 2024	Finanace Prime	1	5	Pull and validation of shipment volumes within Canada for 2024	5		
Consolidation of Question and Shipment Data to Establish and File Plastics summary per regulation	Quality Prime/Project Manager/Legal/Master Data	2	30	Validate and Assemble the above data, Proper categorization of plastic to the Plastics government codes, role up all data. to create filings for the Canadian Government and file the Submission	60		
				Total HC Days	**450**	**Estimated Cost**	**$172,945.21**

Canadian Plastics Registry
The Better Way

- **Create 'Average Bill of Materials' for product types**

- **Complete Average Bill of Materials**
  - Representative products for each family
  - Models for wide variety high volume products
    - Such as Ikea's 389 types of lamps

High Variety High Volume Products

- **Create single model for core components**
  - Same or very similar components in every variation of product
    - Example: power cords

- **Create separate models for significant variations**
  - Parts that vary that can significantly impact the final plastic output
    - Example: Lamp shade

- **Select applicable plastics registry models (multiple) per product**
  - Buffet style model selection

High Variety High Volume Products

- Example: Lamps
  - Models for different sections

Representative Product	EVA Base				ABS Base				Cord Set			
Sold in 2024	Units	1500	Total Weight	6000000	Units	200	Total Weight	2000000	Units	1700	Total Weight	8000000
Average Product Weight (including packaging in g)	5,000				5,000				5,000			
Plastic Composiiton	2.00%				10.0%				4.53%			
Method used	Specific component identification method				Specific component identification method				Specific component identification method			
	Product		Packaging		Product		Packaging		Product		Packaging	
	g	%	g	%	g	%	g	%	g	%	g	%
2811211 Polyethylene terephthalate (PET) resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811219 Other thermoplastic polyester resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.04%	0	0.00%
2811221 Low-density polyethylene (LDPE) resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811222 Linear low-density polyethylene (LLDPE) resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811223 High-density polyethylene (HDPE) resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811229 Other polyethylene resins	100	2.00%	0	0.00%	0	0.00%	0	0.00%	25	0.50%	0	0.00%
2811231 Polystyrene (PS) resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811291 Acrylonitrile-butadiene-styrene (ABS) resins	0	0.00%	0	0.00%	500	10.00%	0	0.00%	0	0.00%	0	0.00%
2811292 Polyvinyl chloride (PVC) resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	190	3.80%	0	0.00%
2811293 Polypropylene (PP) resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.04%	0	0.00%
2811294 Thermoplastic polyurethane (TPU) resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811295 Polyamide (PA, nylon) resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.01%	0	0.00%
2811299 All other thermoplastic resins, n.e.c.	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811411 Bio-based thermoplastic resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811412 Petroleum-based biodegradable thermoplastic resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811311 Phenolic (PF) resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811312 Urea formaldehyde (UF) resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811319 All other formaldehyde-based resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811391 Thermosetting unsaturated polyester (UPR) resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811392 Thermosetting polyurethane (PU) resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2811399 Other thermosetting resins, n.e.c.	0	0.00%	0	0.00%	0	0.00%	0	0.00%	7	0.14%	0	0.00%
2811413 Bio-based thermoset resins	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
In scope (x)		x		x		x		x		x		x
Total Weight (Plastics)	100	2.00%	0	0.00%	500	10.00%	0	0.00%	226	4.53%	0	0.00%

High Variety High Volume Products

- Example: Lamps
  - Model Selection

Desktop Lamps	Units Sold	Total Weight Sold (g)	EVA Base	ABS Base	Cord Set	PC Shade	Polyester Shade	Packaging
PC Lamp	1000	5000000	100%	0%	100%	100%	0%	100%
Polyester Lamp	500	1000000	100%	0%	100%	0%	100%	100%
Short Polyester Lamp	200	2000000	0%	100%	100%	0%	100%	100%
Sku 4			0%	0%	0%	0%	0%	0%
Sku 5			0%	0%	0%	0%	0%	0%
Sku 6			0%	0%	0%	0%	0%	0%
Sku 7			0%	0%	0%	0%	0%	0%
Sku 8			0%	0%	0%	0%	0%	0%
Sku 9			0%	0%	0%	0%	0%	0%
Sku 10			0%	0%	0%	0%	0%	0%
Sku 11			0%	0%	0%	0%	0%	0%
Sku 12			0%	0%	0%	0%	0%	0%
Sku 13			0%	0%	0%	0%	0%	0%
Sku 14			0%	0%	0%	0%	0%	0%

High Variety High Volume Products

- Example: Lamps
  - Summary Output

Summary	Full Summary - Lamps		EVA Base		ABS Base	
# of Units sold in 2024	1700		1500		200	
Product Weight (including packaging in g)	8,000,000		6,000,000		2,000,000	
Plastic Composiiton	12.1%		2.0%		10.0%	
Method used	Average bill of materials method		Average bill of materials method		Average bill of materials method	
	Product	Packaging	Product	Packaging	Product	Packaging
	g	g	g	g	g	g
2811211 Polyethylene terephthalate (PET) resins	60,000	0	0	0	0	0
2811219 Other thermoplastic polyester resins	3,200	0	0	0	0	0
2811221 Low-density polyethylene (LDPE) resins	0	72,000	0	0	0	0
2811222 Linear low-density polyethylene (LLDPE) resins	0	0	0	0	0	0
2811223 High-density polyethylene (HDPE) resins	0	0	0	0	0	0
2811229 Other polyethylene resins	160,000	0	120,000	0	0	0
2811231 Polystyrene (PS) resins	0	0	0	0	0	0
2811291 Acrylonitrile-butadiene-styrene (ABS) resins	200,000	0	0	0	200,000	0
2811292 Polyvinyl chloride (PVC) resins	304,000	0	0	0	0	0
2811293 Polypropylene (PP) resins	2,800	0	0	0	0	0
2811294 Thermoplastic polyurethane (TPU) resins	0	0	0	0	0	0
2811295 Polyamide (PA, nylon) resins	960	0	0	0	0	0
2811299 All other thermoplastic resins, n.e.c.	150,000	0	0	0	0	0
2811411 Bio-based thermoplastic resins	0	0	0	0	0	0
2811412 Petroleum-based biodegradable thermoplastic resins	0	0	0	0	0	0
2811311 Phenolic (PF) resins	0	0	0	0	0	0
2811312 Urea formaldehyde (UF) resins	0	0	0	0	0	0
2811319 All other formaldehyde-based resins	0	0	0	0	0	0
2811391 Thermosetting unsaturated polyester (UPR) resins	0	0	0	0	0	0
2811392 Thermosetting polyurethane (PU) resins	0	0	0	0	0	0
2811399 Other thermosetting resins, n.e.c.	11,200	0	0	0	0	0
2811413 Bio-based thermoset resins	0	0	0	0	0	0
Total Weight (Plastics)	892,160	72,000	120,000	0	200,000	0

Canadian Plastics Registry
The Better Way

- **Using models**
  - Use dozens of models to representative thousands of products
  - <20% the work of the full project
  - **Much better accuracy** than the the "old fashioned way"
    - Easier to work on detail and correctness on a smaller subset

Canadian Plastics Registry
Extremely Complex Products

- **What about really complex products?**
  - Claigan has built a library of complex assemblies
  - Claigan supplies a questionnaire to the client with all the necessary requirements
    - Built off the major plastics
      - And the numbers of assemblies of each size

Large / Complex Products

- **Client Questionnaire**

Large Products Plastics Registry Questionnaire	
Product Name:	
Company Name:	
Total Product Weight (g):	

Large components	Plastic Type	Volume % plastic
Large Plastic 1		
Large Plastic 2		
Large Plastic 3		
Large Plastic 4		
Large Plastic 5		
Large Plastic 6		
Large Plastic 7		
Large Plastic 8		
Large Plastic 9		
Large Plastic 10		

AND

PREFERRED

Mass (g)	Non-Plastic components included in weight (Y/N)	OR
		Send us the CAD model and we will process it

The largest plastics

>50% of one dimension

Assembly type	Quantity of Sizes:		
	Small (<2")	Medium (<4")	Large (>4")
Fans			
Internal Pumps			

* Side length or diameter depending on shape

Motors	Small (<1")	Medium (<2")	Large (>2")
Quantities			

* Measurement are by diameter

The # of each size of assembly

PREFERRED

Circuit Boards	Total Mass (g)	OR	Quantity of Rigid Circuit Boards Sizes:			Very Large Circuit Board > 50 sq in	
			Small (<10 sq. in)	Med. (10 to 25 sq. in)	Lrg (25 to 50 sq. in)	Avg. Surf. Area	Quantity

* Please do not include flexible boards or any boards under 1 sq. in

Display Screens	Units	Largest Screen Type		Second Largest Screen Type	
		Screen size	Screen Quantity	Screen size	Screen Quantity

* Please use Diagonal size. Not all screens need to be filled out

PREFERRED

Cables	% Cabling /w Sheath	AND	Total Mass (g)	OR	Total Length	Units

Large / Complex Products

- **Claigan models pre-built for common components**
  - Models are average % of plastics by weight
  - Final plastics output based on weight of component

Model	2811211 Polyethylene terephthalate (PET) resins	2811219 Other thermoplastic polyester resins	2811221 Low-density polyethylene (LDPE) resins	2811222 Linear low-density polyethylene (LLDPE) resins	2811223 High-density polyethylene (HDPE) resins	2811229 Other polyethylene resins	2811231 Polystyrene (PS) resins	2811291 Acrylonitrile-butadiene-styrene (ABS) resins	2811292 Polyvinyl chloride (PVC) resins
Circuit Board	1.10%	10.85%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cable	0.00%	0.40%	0.00%	0.00%	0.00%	5.30%	0.01%	0.00%	38.13%
Elect. Ass.	6.35%	0.27%	0.00%	0.00%	0.39%	0.00%	0.94%	0.00%	0.00%
Motors	0.03%	0.66%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Pumps	0.03%	1%	0.08%	0.00%	0.03%	0.30%	0.00%	0%	0%
Fans	3.03%	26.95%	0.00%	0.00%	0.00%	0.00%	0.20%	0.00%	8.03%
Unsheathed cables	0.67%	9.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	15.48%

Canadian Plastics Registry
The Better Way

- **Using models**
  - Use dozens of models to representative thousands of products
  - <20% the work of the full project
  - **Much better accuracy** than the the "old fashioned way"
    - Easier to work on detail and correctness on a smaller subset

Canada PFAS Reporting
Steps 1 to 3

- **Step 1 - Review the chemicals in scope**
  - Do these chemical apply to your products?
  - Can they possibly be in your products at a reportable level?
- **Step 2 - Take actions based on Step 1**
  - Based on the applicable substances / applications
    - Pursue those small number of applicable situations
- **Step 3 - Complete reporting**
  - Complete simple or complex reporting (as warranted)
  - Optionally - submit declarations of stakeholder interest
  - If no reportable or interest PFAS, declaration of non-engagement

Q&A

Due January 29 2025