

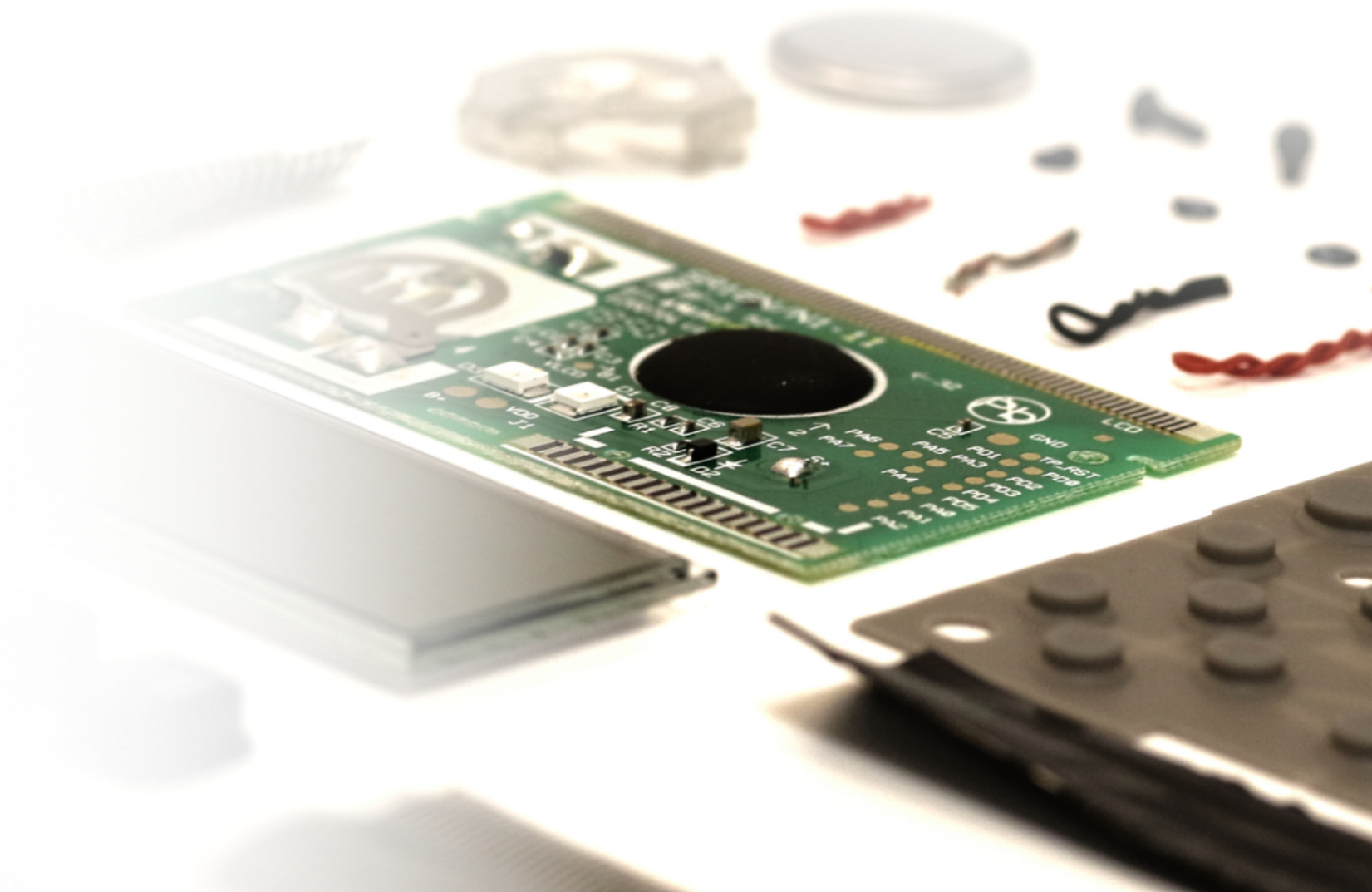


## Claigan Webinar

## Canadian Plastics Registry

Presented by:  
Bruce Calder  
VP Consulting

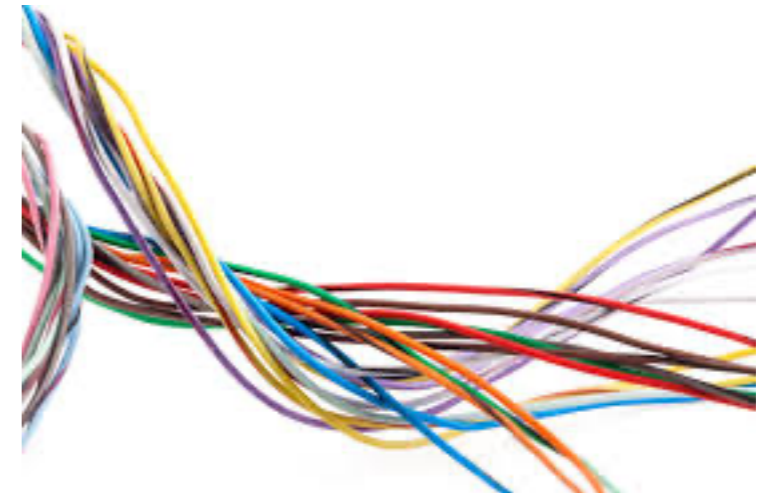
May 8, 2024



# Overview - Agenda

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- Canadian Plastics Registry
  - Summary
  - Deadline
- Scope
  - Producer
  - EEE
  - Packaging
  - Single Use Plastics
- North American Product Classification System
- How to do it -
  - Plastics and products
  - Representative products
  - Creating plastics template
    - Plastics models
  - Combining with sales volumes
- Q&A



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

# Canadian Plastic Reporting

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- **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

# Why?

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- **Canada**
  - Hosted UN Meeting on Plastics Waste
  - “Zero Plastic Waste by 2030” Initiative



**23 - 29 April 2024, Ottawa, Canada**

The fourth session of the [Intergovernmental Negotiating Committee](#) to develop an international legally binding instrument on plastic pollution, including in the marine environment (INC-4), took place from 23 to 29 April 2024 at the Shaw Center in Ottawa, Canada.

The session was preceded by regional consultations on 21 April 2024.

# Press

- Part of Canada’s “**Zero Plastic Waste by 2030**”

CANADA

## Canada to require plastic makers to report on production, waste

By Mia Rabson • The Canadian Press

Posted April 23, 2024 12:50 pm · Updated April 23, 2024 3:42 pm · 4 min read



WATCH: Guilbeault 'confident' that 'ambitious' plastic pollution treaty will be achieved by end of year – Apr 23, 2024

 Government of Canada / Gouvernement du Canada

Search ECCC

MENU

[Canada.ca](#) > [Environment and Climate Change Canada](#)

### The Government of Canada requires producers to take more responsibility for the plastic they put on the market

From: [Environment and Climate Change Canada](#)

#### News release

April 22, 2024 – Gatineau, Quebec

Less than ten per cent of plastics in Canada are recycled, with the rest ending up in landfills and often on our beaches, in rivers, parks and our oceans, harming wildlife and damaging habitats. Canadians want to see concrete action from governments and plastic producers to step up to tackle plastic pollution. This means improving how plastics are made, used and managed, cutting plastic waste, building green economic opportunities, and sending a clear signal to governments and businesses so they can spur innovation, drive policy, and signal areas of investment.

# Canadian Plastics Registry

## 2025 Reporting

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- **Products required to report in 2025**
  - Packaging
  - Single-use or disposable plastics
  - Category I: Electronic and Electrical Equipment (EEE)
- **Deadline September 29 2025**
  - For products manufactured in or imported into Canada in 2024

## Who is producer?

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- **“producer”** means
  - (a) a brand owner or intellectual property holder who resides in Canada;
  - (b) if there is no resident brand owner in Canada, then the producer is the first resident person in Canada to import or manufacture the product;
  - (c) if there is no person as described in part (a) or (b) above, the producer is the Canadian retailer who supplied the product to the consumer; or
  - (d) if the producer is a retailer and that retailer is a marketplace seller, the marketplace facilitator that contracts with the marketplace seller shall be deemed to be the producer.

# EEE In Scope

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- **Category I: 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 I
  - (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

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- **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

# Plastics to Report

- North American Product Classification System (NAPCS) Canada 2022 Version 1.0

## PART 1

### Resins identified according to the North American Product Classification System (NAPCS) Canada 2022 Version 1.0

NAPCS CODE	NAPCS TITLE
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
2811293	Polypropylene (PP) resins
2811294	Thermoplastic polyurethane (TPU) resins
2811295	Polyamide (PA, nylon) resins
2811299	All other thermoplastic resins, n.e.c.
2811411	Bio-based thermoplastic resins
2811412	Petroleum-based biodegradable thermoplastic resins
2811311	Phenolic (PF) resins
2811312	Urea formaldehyde (UF) resins
2811319	All other formaldehyde-based resins
2811391	Thermosetting unsaturated polyester (UPR) resins
2811392	Thermosetting polyurethane (PU) resins
2811399	Other thermosetting resins, n.e.c.
2811413	Bio-based thermoset resins
2811414	Petroleum-based biodegradable thermoset resins

# North American Product Classification System (NAPCS)

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- Statistics Canada [reporting fields](#)
- Unique to Canada

Catalogue no. 12-003-X  
ISBN 978-0-660-40718-0



**North American Product Classification System (NAPCS)  
Canada 2022 Version 1.0**

Release date: August 10, 2023

# North American Product Classification System (NAPCS)

- Very new format

Published by authority of the Minister responsible for Statistics Canada

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**An [HTML version](#) is also available.**

*Cette publication est aussi disponible en français.*

# Canadian Plastic Reporting Reporting Requirement in 2025

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

# Canadian Plastic Reporting ASML Variant Code

- **From Statistic Canada Listings**

- 281 Plastic resins**

- 28112 Thermoplastic resins, except biodegradable**

- 281121 Thermoplastic polyester resins**

- 2811211 Polyethylene terephthalate (PET) resins

- 2811219 Other thermoplastic polyester resins

- 281122 Polyethylene resins**

- 2811221 Low-density polyethylene (LDPE) resins

- 2811222 Linear low-density polyethylene (LLDPE) resins

- 2811223 High-density polyethylene (HDPE) resins

- 2811229 Other polyethylene resins

- 281123 Polystyrene (PS) resins**

- 2811231 Polystyrene (PS) resins

- 281129 Other thermoplastic resins**

- 2811291 Acrylonitrile-butadiene-styrene (ABS) resins

- 2811292 Polyvinyl chloride (PVC) resins

- 2811293 Polypropylene (PP) resins

- 2811294 Thermoplastic polyurethane (TPU) resins

- 2811295 Polyamide (PA, nylon) resins

- 2811299 All other thermoplastic resins, n.e.c.

- 28113 Thermosetting resins, except biodegradable**

- 281131 Phenol-formaldehyde resins**

- 2811311 Phenolic (PF) resins

- 2811312 Urea formaldehyde (UF) resins

- 2811319 All other formaldehyde based resins

- 281139 Other thermosetting resins**

- 2811391 Thermosetting unsaturated polyester (UPR) resins

- 2811392 Thermosetting polyurethane (PU) resins

- 2811399 Other thermosetting resins, n.e.c.

- 28114 Biodegradable plastic resins**

- 281141 Biodegradable plastic resins**

- 2811411 Bio-based thermoplastic resins

- 2811412 Petroleum-based biodegradable thermoplastic resins

# Oversimplification of List

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- **Thermoplastics**

- Thermoplastics do not form any chemical bond when curing, making them re-mouldable and recyclable
- *Examples - acrylic, polyester, polypropylene, polystyrene, nylon, and PTFE*

- **Thermosets**

- Thermosets strengthen when cured but form chemical bonds that make them impossible to remould
- *Example - Polyester, silicone, melamine, polyurethane, and epoxy.*

# Canadian Plastic Reporting ASML Variant Code - Examples

- From **Statistic Canada Listings**

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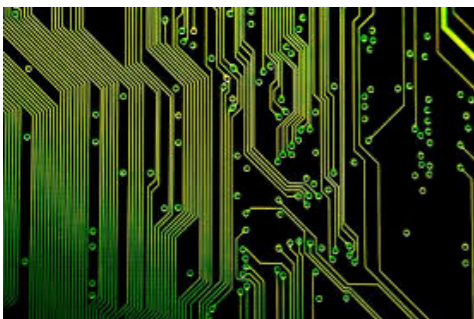
- 2811411 Bio-based thermoplastic resins
- 2811412 Petroleum-based biodegradable thermoplastic resins



PBT



PET



Epoxy



PTFE

# Canadian Plastic Reporting

## ASML Variant Code - Out of Scope

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- **Out of Scope (Rubbers)**
  - Not plastics according to Statistics Canada

### **28211 Rubber and rubber compounds and mixtures**

#### **282111 Natural rubber**

2821111 Natural rubber

#### **282112 Synthetic rubber**

2821121 Synthetic rubber

# Canadian Plastics Registry

## 2025 Reporting

---

- **Products required to report in 2025**
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# Registry

- **Plastics in Product and in Packaging**



Plastics in  
Electronics

Plastics in  
Packaging

# The Big Question -

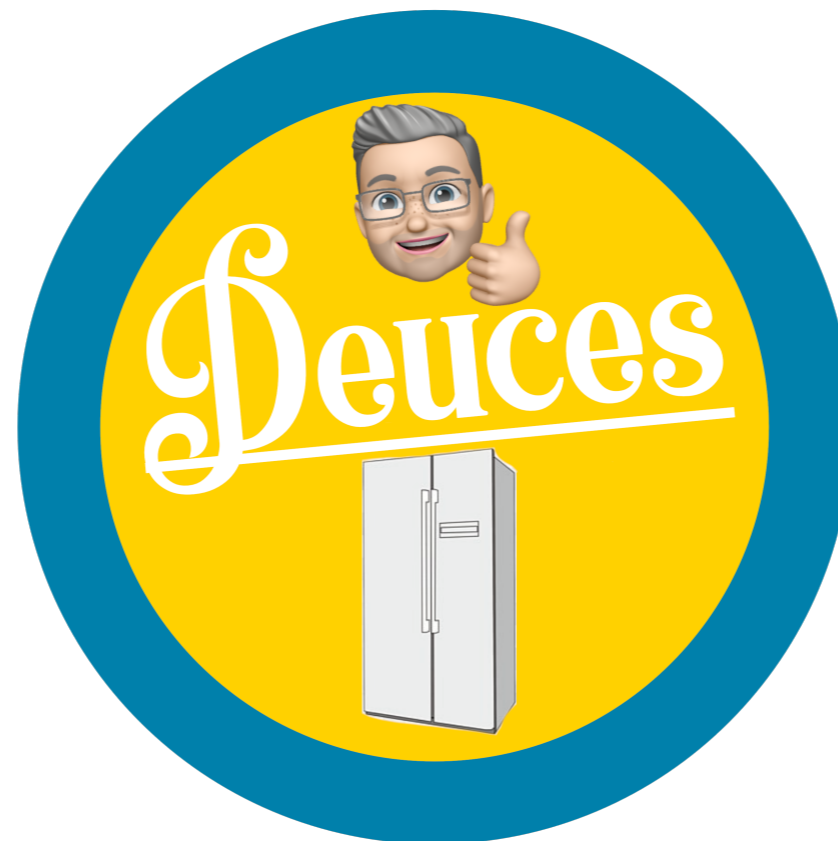
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- **How do you do it?**
- **How do you**
  - Identify all the plastics in your packaging
    - Including plastic ASML Variant Code and weights
  - Identify all the plastics in your products
    - Including plastic ASML Variant Code and weights
  - Combine with your Canadian import data
- **Before September 29 2025**

# How Claigan does it For our clients

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- **How do we do it?**
- **Let's create a fictitious client**



**Makers of fine French door Refrigerators**  
*Double the doors for double the cool!*

# Deuces Products

- **Deuces sells into Canada**



French door refrigerators

In



In various shapes and sizes



Medical refrigerators



Industrial Coolers



Repair Parts  
(For all of these products)

# Claigan Solution

---

- **Short answer**
  - We will make the problem go away
  - We can do the work and give you the answer

# Claigan Solution

---

- **Long answer**
  - We create plastic declarations for representative products
  - And then combine with volumes and average weights
  - And adjust for relative size of repair / accessory parts



One french door refrigerator



One medical refrigerator



One industrial Cooler

# Refrigerator - Plastics Registry

## Part I

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- **Typical Product**

- We identify the plastics in the representative product and packaging
  - Select testing of large plastics
  - Identify and weigh assemblies
  - Combine assembly weights with Claigan plastic models



French door  
refrigerator

# Claigan Plastic Models

- **Claigan have developed average plastics in most common assemblies**

- Populated circuit boards

- Wire and cables

- Electronic assemblies

- *Examples - LCD display, fans*

- Mechanical assemblies

- *Examples - Pumps, medical devices*

Weight (g)	Large Plastic	Packaging	FTIR Match	Plastic ASML
10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PBT	2811219 Other thermoplastic p -
200	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LDPE	2811221 Low-density polyethyl -

Weight (g)	Circuit Board	Cable	Elect. Ass.	Mech. Ass.				
					2811211 Polyethylene terephthalate (PET) resins	2811219 Other thermoplastic polyester resins	2811221 Low-density polyethylene (LDPE) resins	
10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0.4	0.05	0
20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0.6	0.2	1
30	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		0.6	0.6	0.6
40	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		0.4	1.2	0
50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0	0	0
20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0.8	0.1	0

# Claigan Output For Representative Products



- **Output per product**
  - By ASML Variant Code
    - g of each plastic
    - % of product

Product	Deuce's Refrigerator	
Date Evaluated	May 8 2024	
Product Weight (including packaging)	25 kg	
Method used	Testing and Engineering evaluation	
	Product & Packaging	
Resin	g	%
2811211 Polyethylene terephthalate (PET) resins	52	0.2%
2811219 Other thermoplastic polyester resins	224	0.9%
2811221 Low-density polyethylene (LDPE) resins	1224	4.9%
2811222 Linear low-density polyethylene (LLDPE) resins	0	0.0%
2811223 High-density polyethylene (HDPE) resins	0	0.0%
2811229 Other polyethylene resins	8	0.0%
2811231 Polystyrene (PS) resins	0	0.0%
2811291 Acrylonitrile-butadiene-styrene (ABS) resins	40	0.2%
2811292 Polyvinyl chloride (PVC) resins	186	0.7%
2811293 Polypropylene (PP) resins	0	0.0%
2811294 Thermoplastic polyurethane (TPU) resins	4	0.0%
2811295 Polyamide (PA, nylon) resins	62	0.2%
2811299 All other thermoplastic resins, n.e.c.	48	0.2%
2811411 Bio-based thermoplastic resins	0	0.0%
2811412 Petroleum-based biodegradable thermoplastic resins	0	0.0%
2811311 Phenolic (PF) resins	16	0.1%
2811312 Urea formaldehyde (UF) resins	0	0.0%
2811319 All other formaldehyde-based resins	0	0.0%
2811391 Thermosetting unsaturated polyester (UPR) resins	0	0.0%
2811392 Thermosetting polyurethane (PU) resins	0	0.0%
2811399 Other thermosetting resins, n.e.c.	250	1.0%
2811413 Bio-based thermoset resins	0	0.0%
2811414 Petroleum-based biodegradable thermoset resins	0	0.0%
<b>TOTAL</b>	<b>2114</b>	<b>8.5%</b>

## Side note on current testing projects

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- **Packaging registry can be added into project**
  - Process is a parallel process with other processes
  - Very very compatible with PFAS reporting process

# Completing Reporting

- **Once plastics registry output complete per representative product**
  - Combine with sales volume
  - Adjust by average product weight
  - Add in relative correction for accessories and repair parts

## Deuce's Products

- **Deuce's sells into Canada**



French door refrigerators

In



In various shapes and sizes



Medical refrigerators



Industrial Coolers



Repair Parts  
(For all of these products)

# Claigan Solution

---

- **Short answer**
  - We will make the problem go away
  - We can do the work and give you the answer
  
- **And we can combine it with PFAS reporting**

# Canadian Plastic Reporting ASML Variant Code - Examples

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PTFE



# Claigan Solution

## Canadian Plastics Registry

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- **Short answer**
  - We will make the problem go away
  - We can do the work and give you the answer
  - You add it to any project
  - Or we can complete plastic reporting for everything you do
- **And we can do PFAS reporting at the same time**

Q&A