# Non-confidential summary of information received from the second phase of the Domestic Substances List Inventory Update

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#### **Purpose**

In an effort to increase public awareness and to facilitate access to information on manufactured and/or imported substances in Canada, this document provides a summary of information collected by the Government of Canada under the *Notice with respect to certain substances on the Domestic Substances List*(DSL) that was published in the *Canada Gazette* in December 2012. This document refers to both information provided in mandatory responses to the notice, and information provided on a voluntary basis. The information that was collected for the 2011 calendar year will be used to update the commercial status of remaining priority substances, inform priority setting, support risk assessment and risk management activities and inform the next phase of the DSL Inventory Update (DSL IU).

To complement this summary, the <u>Non-confidential information received from the DSL IU2</u> is available in EXCEL format.

Please note that the information presented in this document is limited to what was requested in the notice and throughout the document confidential business information (CBI) has been protected (i.e., by providing quantity ranges, or excluding data elements that were designated by submitters as CBI). Consequently, this may have led to underestimates, so conclusions should be drawn with care.

### **Background**

The <u>Domestic Substances List</u> (DSL) was first compiled in the early 1990's to identify substances that were in commerce in Canada between 1984 and 1986. As commercial activities with some substances can vary greatly over time, the DSL information becomes dated and no longer represents current commercial activity in Canada. The work to update the DSL, undertaken under the <u>Chemicals Management Plan</u> (CMP) is conducted in phases. The first phase of the <u>DSL IU</u> was conducted in 2009 to determine the commercial status in 2008 of approximately 500 inanimate substances. An <u>Update of Approximately 500 inanimate substances (chemicals) on the Domestic Substances List (Information Summary) is available.</u>

In December 2012, a notice was issued for the second phase of the DSL IU (DSL IU2) in the <u>Canada Gazette</u>, <u>Part I: Vol. 146</u>, <u>No. 48 - December 1,2012</u> under section 71 of the <u>Canadian Environmental Protection Act</u>, 1999 (CEPA 1999). The notice applied to approximately 2,700 substances and collected information from the 2011 calendar year.

Prior to launching the notice, the Government of Canada held consultations with various stakeholders, including industry, non-governmental organizations and other interested parties to discuss the approach to gathering information on the remaining priority existing substances. The feedback provided during these consultations aided in the development of the overall approach for the DSL IU2. In order to streamline the reporting requirements to address reporting challenges, the Government of Canada tailored the DSL IU2 notice to ensure the focus was on areas of greatest interest. As such, manufactured items included in the notice were limited to categories with greatest potential for exposure. In addition, a tiered approach was used requiring only basic non-quantitative information for substances present in reportable manufactured items, low concentrations and for polymers.

Additional information on the DSL IU2 notice can be found in the <u>Guidance Document</u> for completing the CEPA section 71 Notice.

### **Summary of Information Collected**

#### **Overview of Substances Reported**

It was determined that approximately half the substances included in the DSL IU2 notice were not reported. The <u>Substances for which no information was submitted under Phase 2 of the DSL Inventory Update</u> is available. These substances will be examined under the <u>Rapid Screening</u> and <u>Polymer</u> Approaches.

Table 1: Snapshot of data received for DSL IU2

Data Received	Number of Substances
Included in the notice	2663

Table 1: Snapshot of data received for DSL IU2

Data Received	Number of Substances
Reported (via mandatory &/or voluntary submission)	1338
Not reported	1325
Manufactured or Imported in a concentration greater than or equal to 0.1% by weight (w/w)	748
Solely manufactured	81
Solely imported	506
Intended for use in commercial activities	659
Intended for use in consumer activities	437
Intended for use by or for children	204
Manufactured or Imported in a reportable manufactured item	467
Manufactured or Imported in a trace concentration (less than	404
0.1% w/w)	
Solely as a contaminant/by-product	196
Solely as a waste	11

Table 2: Submissions received for DSL IU2 (includes mandatory and voluntary submissions)

Type of Submission	Number of Submissions Received
Section 71 Notice	531
Declaration of Stakeholder Interest	116

Table 3: Substances reported in DSL IU2 (via mandatory and/or voluntary submissions)

Type of Substance			Number of Substances Not Reported
Polymers	559	298	261
Non-polymers	2018	1020	998
Confidential masked substances	86	20	66

## **Polymers**

The notice requested basic, non-quantitative information on polymers that will contribute to the <u>Polymer approach</u> in the next phase of the CMP.

Table 4: The 10 polymer substances most frequently reported as manufactured or imported in quantities greater than 1000 kg

		. 5	3
CAS RN	Sı	ubstance Name	

Table 4: The 10 polymer substances most frequently reported as manufactured or imported in quantities greater than 1000 kg

CAS RN	Substance Name
25322-68-3	Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-
63148-62-9	Siloxanes and Silicones, di-Me
9003-11-6	Oxirane, methyl-, polymer with oxirane
9010-79-1	1-Propene, polymer with ethene
9003-07-0	1-Propene, homopolymer
9003-55-8	Benzene, ethenyl-, polymer with 1,3-butadiene
24937-78-8	Acetic acid ethenyl ester, polymer with ethene
25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane
9038-95-3	Oxirane, methyl-, polymer with oxirane, monobutyl ether
67762-90-7	Siloxanes and Silicones, di-Me, reaction products with silica

## **Substances in Reportable Manufactured Items**

The notice requested non-quantitative information for substances that were manufactured or imported in a manufactured item, and focused on categories of manufactured items with a higher potential for exposure (e.g. intended to be used by children under the age of 6 years; clothing or footwear; bedding, sleeping bags or towels, specific food packaging, reusable food or beverage containers, etc.). The 10 categories of manufactured items that were reportable in DSL IU2 are listed in Schedule 1 of the *Notice with respect to certain substances on the Domestic Substances List*.

Table 5: The 10 substances most frequently reported as manufactured or imported in reportable manufactured items in quantities greater than 100 kg, and some of their applications. The order in the table is based on the number of times an application was reported and is not based on the quantity in commerce.

CAS RN	Substance Name	Most Frequently Reported Applications of the Substances Contained in Reportable Manufactured Items
67-63-0	2-Propanol	<ol> <li>Paints and Coatings</li> <li>Cleaning and Furnishing Care</li> <li>Personal Care</li> </ol>
14807- 96-6	Talc (Mg3H2(SiO3)4)	<ol> <li>Personal Care</li> <li>Paints and Coatings</li> <li>Plastic and Rubber materials</li> </ol>
1344-28- 1	Aluminum oxide (Al2O3)	<ol> <li>Paints and Coatings</li> <li>Adhesives and Sealants</li> <li>Building or Construction Materials</li> </ol>

Table 5: The 10 substances most frequently reported as manufactured or imported in reportable manufactured items in quantities greater than 100 kg, and some of their applications. The order in the table is based on the number of times an application was reported and is not based on the

quantity in commerce.

	quaii	Most Fraguently Paparted Applications of the
CAS RN	Substance Name	Most Frequently Reported Applications of the
CAS KIN	Substance Name	Substances Contained in Reportable  Manufactured Items
7004.00	Dhaanharia asid	
	Phosphoric acid	Paints and Coatings
2		Cleaning and Furnishing Care
		3. Food and Beverage
128-37-0	Phenol, 2,6-bis(1,1-	Lubricants and Greases
	dimethylethyl)-4-methyl-	Personal Care
		3. Ink, Toner and Colourants
79-10-7	2-Propenoic acid	Adhesives and Sealants
		Paints and Coatings
		Cleaning and Furnishing Care
100-51-6	Benzenemethanol	Paints and Coatings
		Personal Care
		3. Adhesives and Sealants
7439-96-	Manganese	Metal materials
5		Building or Construction Materials
		Automotive, Aircraft and Transportation
102-71-6	Ethanol, 2,2',2"-nitrilotris-	Personal Care
		<ol><li>Cleaning and Furnishing Care</li></ol>
		Lubricants and Greases
1328-53-	C.I. Pigment Green 7	Paints and Coatings
6		<ol><li>Ink, Toner and Colourants</li></ol>
		Plastic and Rubber materials
	1	

Table 6: The 10 applications most frequently reported for substances contained in reportable manufactured items in quantities greater than 100 kg and the number of substances reported for each application

kg and the number of substances reported for each application		
Applications of the Substances Contained in Reportable Manufactured Items	Number of Substances	
Personal Care	158	
Paints and Coatings	101	
Lubricants and Greases	81	

Table 6: The 10 applications most frequently reported for substances contained in reportable manufactured items in quantities greater than 100 kg and the number of substances reported for each application

Applications of the Substances Contained in Manufactured Items	Reportable Number of Substance
Laundry and Dishwashing	79
Cleaning and Furnishing Care	71
Air Care	56
Metal materials	56
Adhesives and Sealants	55
Plastic and Rubber materials	48
Automotive, Aircraft and Transportation	46

# Substances in Trace Concentrations [less than 0.1% by weight (w/w)]

The notice requested basic, non-quantitative information for substances that were manufactured or imported in a mixture or product at a concentration less than 0.1% w/w.

Table 7: Number of substances reported in trace concentrations (less than 0.1% w/w) in mixtures or products, and amount manufactured or imported solely as a contaminant, by-product or waste

Substances Reported in Trace Concentrations	Number of Substances
Manufactured or imported in a trace concentration in mixtures or products	404
solely manufactured or imported in trace concentrations	22 Footnote Table 7[a]
solely manufactured or imported as a contaminant / by- product	196
solely manufactured or imported as a waste	11

#### **Footnote Table 7**

Although 404 substances were manufactured or imported in trace concentrations, they may have also been manufactured or imported at concentrations greater than or equal to 0.1% w/w, 22 of these substances were **only** reported in DSL IU2 as being manufactured or imported in trace concentrations.

# Substances in Concentrations greater than or equal to 0.1% w/w

The notice requested more detailed information, such as quantitative information, for substances that were manufactured or imported alone, in a mixture, or in a product in

concentrations greater than or equal to 0.1% w/w. A total of 748 substances were reported as manufactured or imported at a concentration greater than or equal to 0.1% w/w during the 2011 calendar year, and 273 of these substances were solely reported in DSL IU2 as being manufactured or imported at a concentration greater than or equal to 0.1%.

Table 8: The top 5 substances imported in concentrations greater than or equal to 0.1% (alone or in mixture/product) based on the total quantities reported, and some of their applications (Quantities reflect volume ranges

in order to protect CBI)

Rank	CAS RN	Substance Name	2011 Imported Quantity Range (millions of kg)	Applications
1	7697- 37-2	Nitric acid	1,000 - 24,999	<ol> <li>Paints and Coatings</li> <li>Cleaning and Furnishing Care</li> <li>Agricultural Products, mixtures or manufactured items (non-pesticidal)</li> </ol>
2	1344- 28-1	Aluminum oxide (Al2O3)	1,000 - 24,999	<ol> <li>Paints and Coatings</li> <li>Adhesives and Sealants</li> <li>Building or Construction Materials</li> </ol>
3	65996- 77-2	Coke (coal)	500 - 749	Raw materials     Fuels and Related Products,     mixtures or manufactured items     Metal materials
4	1317- 40-4	Copper sulfide (CuS)	100 - 249	Metal materials
5		Ammonium chloride ((NH4)CI)	100 - 249	<ol> <li>Oil and Natural Gas Extraction</li> <li>Personal Care</li> <li>Adhesives and Sealants</li> </ol>

Table 9: The top 10 substances manufactured in concentrations greater than or equal to 0.1% w/w (alone or in mixture/product) based on the total quantities reported, and some of their applications (Quantities reflect

volume ranges in order to protect CBI)

	2011 Manufactured			
Rank		Substance Name	Quantity Range (millions of kg)	Applications
1		Electrolytes, nickel-manufg.	1,000 - 24,999	CBI
2	74-84-0	Ethane	1,000 - 24,999	Fuels and Related     Products, mixtures or     manufactured items     Oil and Natural Gas     Extraction
3	128704- 79-0	Leach solutions, zinc refining	1,000 - 24,999	Other metal processes
4	65996- 77-2	Coke (coal)	1,000 - 24,999	Raw materials     Fuels and Related     Products, mixtures or     manufactured items     Metal materials
5	24-4	Wastewater, zinc sulfate electrolytic, acid	1,000 - 24,999	Other metal processes
6	69011- 86-5	Zinc ores, concs., preleached	1,000 - 24,999	Metal materials
7	65996- 69-2	Slags, ferrous metal, blast furnace	1,000 - 24,999	<ol> <li>Adhesives and Sealants</li> <li>Building or Construction Materials</li> <li>Paints and Coatings</li> </ol>
8	65996- 71-6	Slags, steelmaking	1,000 - 24,999	Building or Construction     Materials
9	68131- 30-6	Sulfite liquors and Cooking liquors, green	1,000 - 24,999	Paints and Coatings     Other intermediate     chemical
10	69012- 79-9	Calcines, zinc ore- conc.	1 999	Metal materials

Table 10: The 10 sectors footnote Table 10[al] most frequently reported for substances that were manufactured or imported in concentrations greater than or equal to 0.1% w/w (alone or in mixture/product), and the top

substances reported for each sector

NAIGO	substances reported for each sector			
NAICS Codes	Industry Sector	CAS RN	Substance Name	
4184 418410	Chemical (except agricultural) and allied product merchant wholesalers		2-Propanol Talc (Mg3H2(SiO3)4) Phosphoric acid	
32551 325510	Paint and coating manufacturing	67-63-0 14807- 96-6 872-50-	2-Propanol Talc (Mg3H2(SiO3)4) 2-Pyrrolidinone, 1-methyl-	
325999	Other chemical product manufacturing - All other miscellaneous chemical product manufacturing	67-63-0 7664- 38-2 872-50-	2-Propanol Phosphoric acid 2-Pyrrolidinone, 1-methyl-	
32561 325610	Soap and cleaning compound manufacturing		2-Propanol Amides, coco, N,N- bis(hydroxyethyl) Glycine, N,N'-1,2- ethanediylbis[N- (carboxymethyl)-, tetrasodium salt	
32519 325190	Basic chemical manufacturing - Other basic organic chemical manufacturing	9016- 45-9	2-Propanol Poly(oxy-1,2-ethanediyl), α- (nonylphenyl)-ω-hydroxy- Ethanol, 2-(2-butoxyethoxy)-	
336110	Automobile and light-duty motor vehicle manufacturing	108-10- 1 1344- 28-1 98-82-8	2-Pentanone, 4-methyl- Aluminum oxide (Al2O3) Benzene, (1-methylethyl)-	
32562 325620	Toilet preparation manufacturing		2-Propanol Ethanol, 2,2',2''-nitrilotris- 1-Hexadecanol	
32521 325210	Resin and synthetic rubber manufacturing	14807- 96-6	Talc (Mg3H2(SiO3)4) 2-Propanol	

Table 10: The 10 sectors Footnote Table 10[al] most frequently reported for substances that were manufactured or imported in concentrations greater than or equal to 0.1% w/w (alone or in mixture/product), and the top

substances reported for each sector

NAICS Codes	Industry Sector	CAS RN	Substance Name
			Phenol, 2,6-bis(1,1-
		128-37-	dimethylethyl)-4-methyl-
		U	
32552	Adhesive manufacturing	14807-	Talc (Mg3H2(SiO3)4)
325520		96-6	Aluminum oxide (Al203)
		1344-	Propanol, oxybis-, dibenzoate
		28-1	
		27138-	
		31-4	
32411	Petroleum refineries	1344-	Aluminum oxide (Al2O3)
324110		28-1	2-Propanol
		67-63-0	Benzene, (1-methylethyl)-
		98-82-8	

#### **Footnote Table 10**

Similar North American Industry Classification System (NAICS) codes were combined to determine the overall ranking.

Table 11: The 10 functions most frequently reported for substances that were manufactured or imported in concentrations greater than or equal to 0.1% w/w (alone or in mixture/product), and the number of substances

reported for each category

Substance Function Category	Number of Substances Reported
Intermediates	222
Paint additives and coating additives	186
Processing aids, not otherwise covered	145
Lubricants and lubricant additives	143
Adhesives and sealant substances	133
Processing aids, specific to petroleum production	110
Surface active agents	103
Corrosion inhibitors and anti-scaling agents	91
Solvents (which become part of formulation or	90
mixture)	
Pigments	89

Table 12: The 10 consumer and commercial applications most frequently reported for substances that were manufactured or imported in concentrations greater than or equal to 0.1% w/w (alone or in mixture/product), and the number of substances reported for each application

Consumer & Commercial Applications	Number of Substances Reported
Paints and Coatings	258
Lubricants and Greases	156
Adhesives and Sealants	149
Plastic and Rubber materials	146
Personal Care	140
Cleaning and Furnishing Care	137
Automotive, Aircraft and Transportation	132
Building or Construction Materials	132
Ink, Toner and Colourants	118
Oil and Natural Gas Extraction	114

Table 13: Intended uses of substances that were manufactured or imported in concentrations greater than or equal to 0.1% w/w (alone or in a mixture/product)

Intended Use	Number of Substances
Intended for use in commercial activities	659
Intended for use in consumer activities	437
Intended for use by or for children (up to 14 years of age)	204

Table 14: The 10 substances most frequently reported as manufactured or imported in concentrations greater than or equal to 0.1% w/w (alone or in a mixture/product) intended for use by or for children (up to 14 years of age)

	, , , , , , , , , , , , , , , , , , , ,	
CAS RN	Substance Name	
67-63-0	2-Propanol	
14807-96-6	Talc (Mg3H2(SiO3)4)	
102-71-6	Ethanol, 2,2',2"-nitrilotris-	
128-37-0	Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	
64-02-8	Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt	
7664-38-2	Phosphoric acid	
151-21-3	Sulfuric acid monododecyl ester sodium salt	
111-42-2	Ethanol, 2,2'-iminobis-	
7681-57-4	Disulfurous acid, disodium salt	
36653-82-4	1-Hexadecanol	

Table 15: The 10 substances most frequently reported as manufactured or imported in concentrations greater than or equal to 0.1% w/w (alone or in a mixture/product) intended for use in commercial activities

CAS RN	Substance Name
67-63-0	2-Propanol
14807-96-6	Talc (Mg3H2(SiO3)4)
1344-28-1	Aluminum oxide (Al2O3)
7664-38-2	Phosphoric acid
102-71-6	Ethanol, 2,2',2"-nitrilotris-
34590-94-8	Propanol, 1(or 2)-(2-methoxymethylethoxy)-
64-02-8	Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt
111-42-2	Ethanol, 2,2'-iminobis-
128-37-0	Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-
872-50-4	2-Pyrrolidinone, 1-methyl-

Table 16: The 10 substances most frequently reported as manufactured or imported in concentrations greater than or equal to 0.1% w/w (alone or in a mixture/product) intended for use in consumer activities

mixture/product/ interface for ase in consumer activities		
CAS RN	Substance Name	
67-63-0	2-Propanol	
14807-96-6	Talc (Mg3H2(SiO3)4)	
102-71-6	Ethanol, 2,2',2"-nitrilotris-	
1344-28-1	Aluminum oxide (Al2O3)	
151-21-3	Sulfuric acid monododecyl ester sodium salt	
64-02-8	Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt	
7664-38-2	Phosphoric acid	
128-37-0	Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	
100-51-6	Benzenemethanol	
2082-79-3	Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, octadecyl	
	ester	

### **Moving Forward**

The information that was collected will be used to:

- update the commercial status of substances that are remaining priorities for assessment;
- inform priority setting for the next phase of the CMP;
- help align with international initiatives applicable to Canadian context;
- support subsequent risk assessment and risk management activities, where appropriate; and

• support key initiatives of the next phase of the CMP, such as the <u>Rapid Screening Approach</u> and the <u>Polymer Approach</u>.

Future phases of the IU will establish a mechanism to monitor the commercial status of substances in Canada. This work will inform priority setting activities, support the operational needs in risk assessment and risk management, and will consider international decisions on substances. Furthermore, the Government of Canada is committed to continuing to communicate results of future Inventory Updates in order to increase transparency and public knowledge of chemicals in commerce in Canada.