



TAKING STOCK

HOW THE **COSMETICS INDUSTRY** RANKS ON TOXIC CHEMICALS

DECEMBER 2013



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HOW THE COSMETICS INDUSTRY RANKS ON TOXIC CHEMICALS

By ENVIRONMENTAL DEFENCE

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About ENVIRONMENTAL DEFENCE

ENVIRONMENTAL DEFENCE is Canada's most effective environmental action organization. We challenge and inspire change in government, business and people to ensure a greener, healthier, and prosperous life for all.



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EXECUTIVE SUMMARY

There is a detox starting in the cosmetics industry – and it's time to take stock to see which companies have made the biggest changes and which ones still have work to do.

To find out more about how the cosmetics industry is changing, ENVIRONMENTAL DEFENCE looked at the “Big 5” companies that manufacture cosmetics sold in Canada in order to assess policies regarding use of chemicals, fragrance ingredient disclosure, and the use of ingredients identified as toxic to human health and the environment. We also selected a variety of products from popular brands owned by the parent companies to get a cross section of some of the most familiar personal care product brands in Canada. From these brands, we checked the product labels to see which of the Toxic Ten chemicals might be ending up in their ingredients, and whether, if the products contain fragrance, their contents are fully disclosed.

In terms of sales, the top five consumer product manufacturers creating cosmetics for the Canadian market are: Estée Lauder, Johnson & Johnson, L'Oréal, Procter & Gamble, and Unilever.¹ Here's how they ranked:

- 1. Procter & Gamble**
- 2. Johnson & Johnson**
- 3. Unilever**
- 4. Estée Lauder**
- 5. L'Oréal**

For the full report card, check out pg. 14

Consumers want products without harmful chemicals. That's why the 'green cosmetics' sector has taken off. Consumers also want to learn about how cosmetic and personal care product companies measure up when it comes to addressing environmental and health concerns, and phasing out the use of toxic ingredients.

INTRODUCTION

ENVIRONMENTAL DEFENCE has been working to raise awareness of toxic chemicals since 2005. After successfully pushing for bans on phthalates from children's toys, and BPA from baby bottles, in 2010 we turned our focus to eliminating endocrine disruptors and carcinogens from cosmetics and personal care products. Since we launched the *Just Beautiful* Pledge, over 50 companies have agreed to eliminate toxic chemicals from their products and fully disclose their ingredients, effectively demonstrating that it is possible to make great, safe, products that work. These companies make up a small share of the market, however, we've recently seen big players also stepping up to get rid of endocrine disruptors and carcinogens.

While we have done a lot of work to highlight the green players in the cosmetics industry, people want more information about the manufacturers dominating the shelf space of major retailers. Keep in mind that under Canadian law "cosmetics" includes soap, deodorant, fragrances, and shaving cream - not just makeup. The Big 5 companies own some of the most well-known brands in Canada, like Biotherm, Body Shop, Clinique, Ivory, MAC and Olay, representing both luxury and affordable products.

The use of ingredients linked to harmful human and environmental health effects is the key concern of this report. While other efforts such as reducing packaging and water and energy use are very important to improving the environmental sustainability of any business, our goal is to take a closer look at the progress (or lack thereof) the cosmetics industry is making in responding to concerns about endocrine-disrupting chemicals and potential carcinogens. In reviewing policies at the parent company level, we hope to encourage their brands to make specific improvements where toxic ingredients are concerned.

We ranked the Big 5 cosmetics companies from best to worst, based on a comparison of their policies (or lack of policies) on safer chemicals, and whether they are making an effort to phase out endocrine disruptors and toxics, and disclose ingredients to better inform consumers.

We assessed the following areas:

1. GETTING RID OF TOXIC INGREDIENTS

*Are cosmetics companies setting targets for eliminating, or have they already eliminated, endocrine disruptors or potential carcinogens? Specifically, we looked at whether companies have set targets to phase out the “Toxic Ten”: **triclosan, phthalates, parabens, formaldehyde and formaldehyde releasers, siloxanes/silicone chemicals, petrolatum, SLS/SLES, and BHA and BHT, coal tar derived colours and artificial musks.** These chemicals make up our Toxic Ten list and are known to be harmful to human health and/or the environment by authorities such as Environment Canada, Health Canada, the World Health Organization (WHO), the State of California, the International Agency for Research on Cancer (IARC) and the European Union.*

2. ACCOUNTABILITY

How are cosmetics companies addressing concerns about chemicals in products? Are companies releasing annual reports to provide consumers with information on progress toward meeting targets for eliminating chemicals of concern?

3. DISCLOSURE

Are fragrance and parfum ingredients disclosed, either fully or partially, on product labels? Under Canadian cosmetics regulations, manufacturers are not required to disclose fragrance ingredients in cosmetics and other consumer products, but fragrance ingredients can include endocrine disruptors and potent allergens. Unless manufacturers voluntarily disclose ingredients on product labels, it is not possible for consumers to make an informed choice.

Instead of sending products to labs for testing, we based our assessment on information that is accessible to the average consumer in the form of product labels, company websites, and customer services.

We based the assessment on information available to use. If policies exist that are not readily available and therefore not reflected in this report, we urge companies to publish them.

THE TOXIC TEN CHEMICALS

ARTIFICIAL MUSKS (*nitromusks such as musk xylene, musk ketone*): found in some products that contain Fragrance or Parfum, various hair products, moisturizers, cosmetics, even those labelled “unscented”. Potential environmental contaminants due to their bioaccumulation.

BHA (*Butylated Hydroxyanisole*) & **BHT** (*Butylated Hydroxytoluene*): found in moisturizers, makeup and some fragrance. Allergens, developmental toxicant and endocrine disruptor.

COAL TAR DERIVED COLORS (*P-Phenylenediamine or PPD*): found in hair dye. Allergens, neurotoxic and possible carcinogens.

FORMALDEHYDE RELEASING AGENTS (*Quaternium-15, 1,4-Dioxane, DMDM Hydantoin, Diazolidinyl Urea, Imidazo-lidinyl Urea, Methenamine, and Sodium Hydromethylglycinate*): found in various hair products, moisturizers and cosmetics. Immune system toxicant, skin irritant and probable carcinogen.

PARABENS (*Ethylparaben, Methylparaben, Butylparaben or Propylparaben*): found in various cosmetics and moisturizers. Allergen, male reproductive toxicant, immune system toxicant and endocrine disruptor.

PETROLATUM (*Petroleum Jelly*): found in various lip, skin and hair products. Can be contaminated by polycyclic aromatic hydrocarbons (PAHs) which are allergens, skin irritants and have been linked to cancer.

PHthalATES (*Dibutyl Phthalate, DEHP, DEP*): found in nail products and scented products. Allergen, linked to asthma, reproductive and developmental toxicant, endocrine disruptor.

SILICONE CHEMICALS (*Cyclomethicone, Cyclotetrasiloxane, Cyclopentasiloxane, Cyclorhexasiloxane*): found in various hair products, moisturizers and cosmetics. Skin irritant and environmental contaminant due to bioaccumulation.

SODIUM LAURETH SULFATE & SODIUM LAURYL SULFATE (*SLS/SLES*): found in products that lather, like shampoo, toothpaste and body wash. Skin irritant. Can be contaminated by 1,4-dioxane which is a respiratory irritant and possible carcinogen.

TRICLOSAN: found in products labelled “antibacterial”, such as anti-perspirants/deodorants, cleansers, and hand sanitizers. Environmental toxicant and endocrine disruptor.

For more information on the TOXIC TEN visit
environmentaldefence.ca/issues/just-beautiful/glossary



WHY ENVIRONMENTAL DEFENCE IS CONCERNED ABOUT COSMETIC INGREDIENTS - AND WHY YOU SHOULD BE TOO

A key source of environmental exposures to endocrine disruptors (chemicals that impact the hormonal system) and carcinogens lies within the personal care products North Americans use every day. Recent studies have offered evidence of a connection between several types of cancer and common ingredients in cosmetics and personal care products. While further study is needed to investigate the causal relationship between these chemicals of concern, and various cancers, there is more than sufficient evidence to recommend that preventative action be taken to limit exposure to toxics in consumer products.

In February 2013, the World Health Organization (WHO) and the United Nations Environment Program (UNEP) released the report *Endocrine-Disrupting Chemicals 2012*, a comprehensive look at the state of the science on endocrine-disrupting chemicals and their impacts on human health.² In particular, the report highlights lifetime estrogen levels as a key risk factor for breast cancer; the more estrogen cycling through the body during a woman's life, the higher her overall risk. The report underlined concerns that synthetic chemicals common in cosmetics, including phthalates and parabens, are endocrine disruptors, mimic the body's natural hormones, affecting estrogen production and metabolism.³ These chemicals may be linked to increasing rates of cancers that are related to the hormone system, such as breast, prostate, testicular and thyroid cancers.⁴

The 2013 UNEP and WHO findings are just the latest in a series of major reports – including the President's Cancer Panel Annual Report 2008-2009, and The Breast Cancer Fund's 2010 report, *State of the Evidence: The Connection Between Breast Cancer and the Environment* – that have highlighted the human and environmental health threats posed by carcinogens and endocrine-disrupting chemicals common in cosmetics and other products.⁵

One of the main areas of concern is the cumulative effect of exposure to toxic chemicals. The 2009 Endocrine Society Scientific Statement, *Endocrine-Disrupting Chemicals*, states: "effects of different classes of EDCs [endocrine disruptors] may be additive or even synergistic."⁶ In addition to being exposed to bisphenol A (BPA) in food packaging, formaldehyde in housing materials, and phthalates in fumes from vinyl shower curtains, the average Canadian uses 15 personal care products with over 100 toxic ingredients before breakfast.⁷ The cumulative, additive effects of this combination, as well as possible synergistic effects between chemicals in cosmetics, highlight the gravity of this source of environmental exposure.

Yet, personal care products are one of the easiest sources of exposure to tackle through a combination of federal regulation, public education, and improved business practices on the part of the cosmetics industry. In the case of cosmetics, chemicals of concern such as parabens, phthalates and heavy metals are not necessary ingredients, and pose an unnecessary risk to the health of Canadians. Removing this source of toxic exposure from the daily personal care routines of Canadians will make an important contribution to the effort to reduce our environmental exposure to carcinogens, and will be a step forward for cancer prevention.



CHANGE IS HAPPENING

Consumers have come to want safer products. In the last few years, there has been a jump in the number of shampoos, shaving creams and moisturizers labelled “paraben-free” or “SLS/SLES free.” Ingredient literacy is on the rise, and some major retailers are moving to stock products free of the most infamous chemical offenders.

Government are looking into this issue as well. Canada declared the endocrine-disrupting anti-bacterial ingredient triclosan “toxic to the environment” in 2012, and is currently looking at what measures to take to reduce the presence of this chemical.⁸ In the European Union, some phthalates are banned from use in cosmetics, and further restrictions on the use of parabens are under consideration.⁹ In the U.S., the Food and Drug Administration (FDA) has been working to negotiate tighter safety regulations for the cosmetics industry. The government agency is pressing for legislation that will give it the authority to review the safety of chemical ingredients that have raised public concern, and will also require cosmetics companies to register with the FDA and report any serious adverse events associated with their products’ use, among other improved powers.¹⁰

Companies are taking note of the increased consumer scrutiny and evolving regulatory frameworks regarding cosmetics. With awareness of potential health impacts from endocrine disruptors rising, and increasing evidence that some common ingredients are linked to cancer and environmental pollution, the demand for safer products has never been higher. Walmart U.S., the largest retailer in that country, recently announced a chemicals policy that will result in suppliers being required to improve ingredient disclosure and phase out ten chemicals of concern.¹¹ Also in the U.S., retailer Target has announced a partnership with GoodGuide, a products rating website that helps consumers choose more environmentally-friendly products.¹²

Moves like the Walmart and Target announcements are making waves in the industry, but change doesn’t happen overnight. Some suppliers are lagging behind in the effort to phase out toxic chemicals from personal care products.

THE BIG 5 COMPANIES: AN OVERVIEW

PROCTER & GAMBLE

PRODUCTS REVIEWED FOR THE TOXIC TEN:

Olay Shine Control Lathering Cleanser

Old Spice Pure Sport High Endurance Anti-perspirant and Deodorant

Crest Pro-Health Toothpaste*

Pantene Pro-V

Ivory Clean & Simple Scented Body Wash

**Toothpaste is not classified as a cosmetic under Canadian regulations, but we have included it here because it is used as a personal care product.*

COMPANY OVERVIEW

- A global, publicly-traded Fortune 500 company, headquartered in Cincinnati, Ohio
- Operates in about 70 countries, including Canada
- Oversees many popular cosmetics and personal care brands including Gillette, Head & Shoulders, Oral-B, and Pantene¹³

WHAT THEY ARE DOING

Procter & Gamble is “the largest consumer packaged goods company in the world today.”¹⁴ It has set “2020 Sustainability Goals,” which include replacing 25 per cent of petroleum based raw materials with sustainably sourced renewable materials, and reducing packaging by 20 per cent per consumer use.¹⁵ The company also is committed to reporting on progress towards these goals.

Regarding the elimination of toxics, Procter & Gamble has targeted four chemicals of concern for action in its product lines.

TABLE 1:
REVIEW OF THE TOXIC TEN: Which chemicals PROCTER & GAMBLE has published a policy to phase-out, eliminate or reduce

Policy to Phase-out, Reduce or Eliminate	No Policy to Phase-Out, Reduce or Eliminate
<p>Triclosan: Eliminating the chemical from products by 2014, and will disclose on all labels until eliminated</p>	<p>Formaldehyde-releasing Ingredients</p>
<p>Phthalates: Working to eliminate DEP from fragrances: 70 per cent complete, with the plan to finish by 2014. Continuously monitor sources of plastic for phthalates and abide by all global phthalate bans</p>	<p>Siloxanes/Silicone Chemicals</p>
<p>Parabens: Continue to provide some paraben-free products. If products contain parabens, including any parabens in fragrance, they will be disclosed on the label</p>	<p>Petrolatum (petroleum jelly)</p>
<p>1,4-Dioxane (found in SLS/ SLES): Wipes & diapers are free of 1,4-dioxane. P&G is also extending efforts to reduce 1,4-dioxane levels to below 25 ppm in other household goods as well, and claim that in cleaning products it is already “below safe levels”</p>	<p>BHA and BHT</p>

COMMENTS

The move to eliminate triclosan and DEP from all products worldwide is a bold step, and can potentially influence other companies to do the same. Efforts to reduce parabens by providing paraben-free products deserve recognition as well.

In terms of disclosure, Procter & Gamble's website allows the public to search for Material Safety Data Sheets (MSDS) that provide in-depth information about health and environmental concerns regarding disposal and use of products – including whether chemicals in the product are subject to California's Proposition 65 labelling. This labelling requires disclosure of ingredients that are considered carcinogens or cause birth defects.

ROOM FOR IMPROVEMENT

Effort to reduce the amount of 1,4-dioxane in products can be improved; Procter & Gamble has committed to keeping the suspected carcinogen out of their baby products but should further commit to keeping this chemical out of all lines of products. In addition, efforts to provide paraben-free products should be extended until these endocrine disruptors are eliminated, continuing in the vein of Procter & Gamble's bold, proactive measures on DEP and triclosan.

OVERALL RANK

1

JOHNSON & JOHNSON

PRODUCTS REVIEWED FOR THE TOXIC TEN:

ROC Keops Deodorant Stick

Aveeno Moisturize Shampoo

Neutrogena Light Night Cream

Clean & Clear Daily Pore Cleanser

Rembrandt Deeply White Toothpaste

COMPANY OVERVIEW

- Headquartered in New Brunswick, NJ
- A family of more than 250 operating companies, with approximately 120,000 employees in 57 countries including Canada¹⁶

WHAT THEY ARE DOING

Johnson & Johnson has made significant changes to company policy regarding cosmetics ingredients in recent years. For example, until recently, one of its signature products “No More Tears” baby shampoo contained the formaldehyde releasing chemical quaternium-15 in North America. Due to stricter regulations, the same product marketed in the UK, Europe, and Japan, did not include the ingredient. As a result, the Campaign for Safe Cosmetics pressured Johnson & Johnson to remove the chemical. The company announced the historic decision to remove the formaldehyde releasers and make its baby products safer in the Fall of 2011.

Johnson & Johnson offers an explanation of its safe chemicals policy on its website. In terms of reporting on progress toward meeting sustainability goals, CSR reports are available online as well.

The company has listed several chemicals as targeted for partial phase-outs or restrictions.

TABLE 2:
REVIEW OF THE TOXIC TEN: Which chemicals JOHNSON & JOHNSON has published a policy to phase-out, eliminate or reduce

Policy to Phase-out, Reduce or Eliminate	No Policy to Phase-Out, Reduce or Eliminate
<p>Triclosan: Johnson & Johnson is phasing out triclosan in beauty and baby care products and is committed to working towards phase outs in all other products</p>	<p>Siloxanes/Silicone Chemicals</p>
<p>Phthalates: Johnson & Johnson baby products are phthalate-free</p>	<p>Petrolatum (petroleum jelly)</p>
<p>Parabens: Currently being phased out of baby products and the use of parabens in adult products restricted to methyl, ethyl and propyl</p>	<p>BHA and BHT</p>
<p>Formaldehyde-releasing ingredients: Currently being phased out of baby products</p>	
<p>1,4-Dioxane (found in SLS/ SLES): In baby products Johnson & Johnson will guarantee to limit 1,4-dioxane presence to lowest reliable level (1-4ppm), and will keep levels under 10 ppm in adult products</p>	
<p>Artificial musks (fragrance): The following are not used in new products: DEP, nitromusks/ polycyclic musks, diacetyl</p>	<p>Coal Tar Derived Colours</p>

COMMENTS

This represents a set of clear commitments to achieve a reduction in six of the chemicals ENVIRONMENTAL DEFENCE has targeted as the Toxic Ten.

Johnson & Johnson has taken steps to eliminate or reduce some of the chemicals of most concern from baby products, has made some progress in eliminating triclosan and some parabens from adult products, and has been proactive in eliminating some of the substances of concern from fragrance.

ROOM FOR IMPROVEMENT

We recommend that Johnson & Johnson extend its work in eliminating phthalates, formaldehyde releasers, and additional parabens to adult products as well, and move to fully disclose the ingredients that make up fragrance/parfum in products.

OVERALL RANK

2



*FRAGRANCE/PARFUM FREE
 XFRAGRANCE AND PARTIAL LISTING OF INGREDIENTS
 XXFRAGRANCE NO INGREDIENTS LISTED

COMPANY & PRODUCT	INGREDIENTS								LABELLING & DISCLOSURE		TOTAL INGREDIENT SCORE	COMMENTS
	Triclosan	SLS	Formaldehyde Releasers	Parabens	Petrolatum	Silicone Ingredients	Coal tar colours	BHA/BHT	SCORE	Extent of Parfum labelling		
PROCTER & GAMBLE									9		8	RANK: 1ST PLACE. Efforts to reduce the amount of 1,4-dioxane in products can be improved. Further, efforts to provide paraben-free products should be in place until this chemical is eliminated from their products, keeping in step with Procter & Gamble's proactive measures on DEP and triclosan.
Olay Shine Control Lathering Cleanser		X		X					2/8	XX	2/2	
Old Spice Pure Sport High Endurance Anti-perspirant and deodorant					X				1/8	XX	2/2	
Crest Pro-Health Toothpaste Clean-Mint		X				X	X		3/8		0/2	
Pantene Pro-V Ultimate 10 Shampoo		X				X			2/8	XX	2/2	
Ivory Clean & Simple Scented Body Wash		X							1/8	XX	2/2	
JOHNSON & JOHNSON									9		4	RANK: 2ND PLACE. We recommend that Johnson & Johnson extend their work in eliminating phthalates, formaldehyde releasers, and additional parabens to adult products as well, and move to fully disclose the ingredients that make up fragrance/parfum in products.
ROC Keops Stick Deodorant			X						2/8	XX	2/2	
Aveeno Positively Nourishing Moisturize Shampoo		X				X			2/8	XX	2/2	
Neutrogena Light Night Cream			X	X	X	X			4/8		2/2	
Clean & Clear Daily Pore Cleanser		X							1/8	XX	2/2	
Rembrandt Deeply White Toothpaste			X						1/8		2/2	
UNILEVER									8		10	RANK: 3RD PLACE. Unilever's position on triclosan and 1,4-dioxane is that these chemicals are present at safe levels, and below the "established level of concern," respectively. However, it is important consider that consumers use cosmetics in combination. Although a chemical may be present at low levels in one product, if it is used along with products that also contain that chemical, there is an additive effect. In addition, what constitutes a "safe level" of triclosan is questionable. Environment Canada has declared triclosan toxic, and the substance is an endocrine disruptor; many endocrine disruptors are active at very low levels. More work should be done to eliminate these chemicals, as well as parabens, from products.
Lever 2000 Original Soap Bars					X				1/8	XX	2/2	
Pond's Dry Skin Cream				X	X				2/8	XX	2/2	
Axe Dry Apollo Anti-perspirant						X	X		2/8	XX	2/2	
Noxzema Clean Moisture Deep Cleansing Cream			X						1/8	XX	2/2	
Dove Energize Shampoo (Grapefruit)		X	X						1/8	XX	2/2	
ESTÉE LAUDER									8		2	RANK: 4TH PLACE. Estée Lauder has made extensive commendable CSR and philanthropic efforts, but in terms of ingredients of concern, the company does not publicly provide any information about safe chemical policies and no explanation of their approach to toxic chemicals is present on their website. Estée Lauder's Green Chemistry Program is mentioned in press releases and announcements on their website, but the company does not outline specific details of the program. We recommend Estée Lauder publish a safer chemicals policy and set targets to eliminate any toxic ingredients from their products.
Estée Lauder Advanced Time Zone Wrinkle Creme						X	X		2/8	X	1/2	
Smashbox Camera Ready CC Cream			X			X	X		3/8		0/2	
Clinique Liquid Facial Soap (Oily Skin)		X							1/8		0/2	
MAC Complete Comfort Creme					X	X			2/8		0/2	
Aveda Pure Abundance Volumizing Shampoo									0/8	X	1/2	
L'ORÉAL									8		6	RANK: 5TH PLACE. The company does not provide any information on chemicals they have targeted for elimination. We recommend that L'Oréal publish a safer chemicals policy to set targets to eliminate chemicals that are endocrine disruptors and/or carcinogens. L'Oréal should look at action that leaders like Procter & Gamble and Johnson & Johnson are taking to eliminate harmful chemicals, from their products and should publish a safer chemicals policy that is readily available to the public.
Maybelline Dream Smooth Mousse Foundation						X	X		2/8		0/2	
Garnier Fructis Hydra Recharge Shampoo		X				X			2/8	XX	2/2	
Biotherm Pure-Fect Skin Toner									0/8	XX	2/2	
Kiehl's Superbly Efficient Anti-Perspirant and Deodorant						X			1/8	XX	0/2	
The Body Shop Cocoa Body Butter				X		X	X		3/8	XX	2/2	

UNILEVER

PRODUCTS REVIEWED FOR THE TOXIC TEN:

Lever 2000 Original Soap Bars

Pond's Dry Skin Cream

Axe Dry Apollo Anti-perspirant

Noxzema Clean Moisture Cleanser

Dove Energize Shampoo (grapefruit)

COMPANY OVERVIEW

- A wholly-owned subsidiary of Unilever PLC, which is headquartered in London, England
- Unilever PLC along with Unilever NV, a Dutch company based in Rotterdam, form the Unilever group, one of the world's largest consumer products companies, operating in 100 countries
- Some of Unilever's personal care products brands include Axe, Dove, Lux, Pond's, Rexona and Sunsilk¹⁷

WHAT THEY ARE DOING

Unilever provides its safe chemicals policy online and CSR reports are available for download as well. As part of its Sustainable Living Plan, the company has a Safety and Environmental Assurance Centre to monitor the safety and environmental sustainability of Unilever products, and the processes used to manufacture them. The company has set a number of sustainability goals to reach by 2020, including reducing packaging by a third. Between 2008 and 2012, Unilever reduced water use by 20 per cent in Canada.

Unilever has targeted several chemicals from the Toxic Ten for action, but is not changing the use of other ingredients of concern.

TABLE 3:
REVIEW OF THE TOXIC TEN: Which chemicals UNILEVER has published a policy to phase-out, eliminate or reduce

Policy to Phase-out, Reduce or Eliminate	No Policy to Phase-Out, Reduce or Eliminate
<p>Triclosan: Used in a limited number of products. There is a scientific debate regarding what a safe level might be, and evidence indicates the environment is already polluted with this chemical. According to the U.S. Centres for Disease Control and Prevention, when triclosan is added to hand washing products, the products are no more effective than washing with regular soap and water</p>	<p>Formaldehyde-releasing Ingredients</p>
<p>Phthalates: Unilever does not use phthalates in products, however they are used in product packaging¹⁸</p>	<p>Siloxanes/Silicone Chemicals</p>
<p>1,4-Dioxane (found in SLS/SLES): The chief concern with SLES and SLS is that they are often contaminated with the probable carcinogen 1-4 dioxane, and can irritate skin. Unilever is working to minimize 1,4-dioxane presence through control methods in manufacturing, to ensure that products “never contain 1,4-dioxane above the level of concern”²⁰</p>	<p>BHA and BHT</p>
	<p>Parabens: Unilever uses specific parabens that are “permitted for use by regulatory bodies around the world”¹⁹ *</p>
	<p>Petrolatum (petroleum jelly)</p>

(continued on page 18)

TABLE 3: continued (Unilever)

Policy to Phase-out, Reduce or Eliminate	No Policy to Phase-Out, Reduce or Eliminate
<p>Artificial musks (fragrance): No longer uses nitromusks as ingredient. Continue to reduce use of polycyclic musks. DEP (a phthalate) is no longer added to products</p>	<p>Coal Tar Derived Colours</p>

COMMENTS

Unilever has made significant progress in terms of environmental sustainability measures by setting and sticking to ambitious targets such as packaging and waste reduction. Unilever deserves credit for not using phthalates in products and reducing artificial musks from fragrance. They are also eliminating microplastics (small plastic beads meant to exfoliate skin), which pollute waterways.²¹

ROOM FOR IMPROVEMENT

Unilever’s position on triclosan, and 1,4-dioxane is that these chemicals are at safe levels, and below the “established level of concern,” respectively. However, it is important to take into consideration that consumers use cosmetics in combination. So although a chemical may be present in low levels in one product, if it is used along with products that also contain the chemical there is an additive effect. In addition, what constitutes a “safe level” of triclosan is questionable. Environment Canada has declared it toxic, and the substance is an endocrine disruptor; many endocrine disruptors are active at very low levels. More work should be done to eliminate these chemicals, as well as parabens, from products.

** While the company claims to only use parabens that are “safe,”²² there is ongoing debate about the safety of parabens due to their endocrine-disrupting chemicals, and other cosmetics companies have been phasing out their use.*

OVERALL RANK

3

ESTÉE LAUDER

PRODUCTS REVIEWED FOR THE TOXIC TEN:

Estée Lauder Advanced Time Zone cream

Smashbox Camera Ready CC Cream

Clinique Liquid Facial Soap

MAC Complete Comfort Creme

Aveda Pure Abundance Volumizing Shampoo

COMPANY OVERVIEW

- Estée Lauder Companies Inc. sells products in over 150 countries and territories including Canada
- Some of its popular cosmetics brands include: Estée Lauder, Clinique, MAC, and Aveda²³

WHAT THEY ARE DOING

A few brands within the company offer a selection of safer alternatives. For example, Aveda is a leader in environmental sustainability, and many of its cosmetics do not use the ingredients included in the Toxic Ten. In fact, Aveda has some products that meet an international cradle to cradle standard (“C2C certification” is independently awarded to companies by design firm McDonough Braungart Design Chemistry).²⁴

TABLE 4:
REVIEW OF THE TOXIC TEN: Which chemicals ESTÉE LAUDER has published a policy to phase-out, eliminate or reduce

Policy to Phase-out, Reduce or Eliminate	No Policy to Phase-Out, Reduce or Eliminate
	Triclosan
	Phthalates
<p>Parabens: According to a customer service representative, Estée Lauder is phasing out parabens, but no other details are publicly available.</p>	
	Formaldehyde-releasing Ingredients
	Siloxanes/Silicone Chemicals
	Petrolatum (petroleum jelly)
	1,4-Dioxane (found in SLS/SLES)
	BHA and BHT
	Coal Tar Derived Colours
	Artificial Musks (fragrance ingredients)

COMMENTS

A call to Estée Lauder's customer service line was informative; though it is not listed on the company's website, the company is working to remove parabens from cosmetics in response to consumer concern. (The *Pink Ribbon* line of products, which raise money for breast cancer research, do not contain parabens, which have been found in breast tumor tissue and are known to mimic estrogen.)

ROOM FOR IMPROVEMENT

Estée Lauder has made extensive CSR and philanthropic efforts, which are commendable, but in terms of the ingredients of concern, the company does not publicly provide detailed information about safe chemical policies on their company website. Estée Lauder's *Green Chemistry Program* is mentioned in press releases and reports, but the company does not make specific details of its program, such as which chemicals have been targeted for elimination, readily available.

OVERALL RANK

4

L'ORÉAL

PRODUCTS REVIEWED FOR THE TOXIC TEN:

Maybelline Dream Mousse Foundation

Garnier Fructis Hydra Recharge Shampoo

Biotherm Pure-Fect Skin Toner

Kiehl's Superbly Efficient Anti-perspirant and Deodorant

Body Shop Cocoa Body Butter

COMPANY OVERVIEW

- L'Oréal operates in 130 countries, including Canada, around the world and has 27 global brands²⁵
- Some of its popular brands include Garnier, Maybelline and Vichy

WHAT THEY ARE DOING

L'Oréal is the parent company of The Body Shop, a company that has a long-time commitment to environmentally sustainable standards in business. However, products available from The Body Shop still include parabens and other ingredients in the Toxic Ten.

L'Oréal provides some regular updates and a fair amount of information on its corporate responsibility landing page, and CSR reports are available by download from the site. It has stated commitment to green chemistry but no specific goals or targets for eliminating any of the Toxic Ten chemicals are listed²⁶ but no goals or targets are listed. L'Oréal does have an online Stakeholders Forum platform where NGOs and associations can register to read more about CSR commitments and speak with their experts. However, on the website, it does not promote a commitment to phase out specific chemicals. Hervé Toutain, Senior Director Worldwide Safety Evaluation and Regulatory Affairs made comments alluding to the elimination of triclosan and diethyl phthalate, but no further details of this are publicly available. It is therefore unclear what steps have been taken to reduce or eliminate these chemicals, or what product lines may have been targeted.²⁷

TABLE 5:
REVIEW OF THE TOXIC TEN: Which chemicals L'ORÉAL has published a policy to phase-out, eliminate or reduce

Policy to Target ✓	No Policy to Target ✗
	Triclosan
	Phthalates
	Parabens
	Formaldehyde-releasing Ingredients
	Siloxanes/Silicone Chemicals
	Petrolatum (petroleum jelly)
	1,4-Dioxane (found in SLS/SLES)
	BHA and BHT
	Coal Tar Derived Colours
	Artificial Musks (fragrance ingredients)

COMMENTS

L'Oréal was a leader in creating alternative ways to research product safety, in order to avoid animal testing. They have made efforts on other CSR measures, but overall information about eliminating endocrine disruptors is lacking.

ROOM FOR IMPROVEMENT

No information is provided about chemicals that may be targeted for elimination. We recommend that L'Oréal publish a more detailed safer chemicals policy that set targets to eliminate specific chemicals that are endocrine disruptors and/or carcinogens.

OVERALL RANK

5



RECOMMENDATIONS

Recommendations for Industry

1. Manufacturers should eliminate the Toxic Ten ingredients:

triclosan, phthalates, parabens, formaldehyde and formaldehyde releasers, siloxanes/silicone chemicals, petrolatum (petroleum jelly), SLS/SLES (which are often contaminated with 1,4-dioxane), and BHA and BHT, coal tar derived colours and artificial musks.

2. Manufacturers should include all fragrance ingredients on product labelling.

Under Canadian cosmetics regulations, manufacturers are not required to disclose fragrance ingredients in cosmetics. As a result it is impossible for consumers to make an informed choice. Many fragrances include phthalates, artificial musks and parabens; these chemicals are linked to human health problems such as asthma, and can be harmful for persons with allergies. However, if labels don't include fragrance ingredients, it is difficult for consumers to avoid chemicals that are potentially harmful. These ingredients are not necessary for fragrances in the first place, but disclosing them, and other chemicals, would be an important step forward.

3. Retailers and manufacturers alike should enact and publicize company policies on chemicals in cosmetics, set targets for eliminating substances of concern, and publish updates on whether these goals are being met.

4. Cosmetic companies should increase transparency so consumers can easily access policies on ingredients and find out more about measures to reduce toxic chemicals in products.

5. Reducing packaging and enacting other sustainability measures to minimize waste and pollution is advisable.

Recommendations for Consumers

1. Learn about which chemicals to avoid in cosmetics. Visit environmentaldefence.ca/toxicten for a pocket shopping guide listing the Toxic Ten chemicals, and check out our blog for monthly tips on cleaner, greener alternatives.

2. Be part of the movement to detox cosmetics by taking part in the effort to urge companies to stop using endocrine disruptors and carcinogens in products, and by asking government to ban the worst of these chemicals. Find our petitions at environmentaldefence.ca/take-action) and sign up for our monthly newsletter at environmentaldefence.ca/newsletter-sign to hear about action alerts and to stay up to date on what's happening with the effort to kick out toxics.



CONCLUSION: **LOOKING TO THE FUTURE**

When it comes to toxics and the cosmetics industry, it's clear that a detox has started, but it's not close to being completed.

Among the Big 5 cosmetics manufacturers, some companies are making better progress than others in setting targets for eliminating chemicals that are toxic to human health and the environment, as well as taking steps to improve their environmental sustainability. However, none of the companies have completely eliminated the Toxic Ten, despite the fact that these chemicals are unnecessary and there is increased public awareness on the negative health impacts they can have.

We applaud the changes that are being made. Procter & Gamble and Johnson & Johnson are eliminating several chemicals of concern from their products; demonstrating leadership and providing further evidence that it can be done. We hope this will have a positive influence on other industry players, and will lay the groundwork for the elimination of even more chemicals from their own product lines.

However, some companies still lagging behind - in this case, L'Oréal and Estée Lauder. While Estée Lauder has issued statements regarding their commitment to green chemistry, company-wide goals and targets related to toxic chemicals are not publicly available, and no specific ingredients have been listed as slated for phase out. While L'Oréal provides extensive information about their testing process and regulatory compliance for ingredient safety, and has espoused the principles of green chemistry, it has provided little information about targeting specific chemicals for elimination or details of an overall safe chemicals policy.²⁸ This is troublesome, since one of these companies is the parent company of a brand that advertises itself as a healthy, clean choice for sensitive skin (Clinique) yet includes as an ingredient an irritant that can be contaminated with 1,4-dioxane. The other is the parent company of a brand that became famous for, and still markets itself as, being a leader in environmental awareness (The Body Shop), yet contains chemicals which have links to

a host of health problems like asthma and allergies, and endocrine disruption and reproductive issues. Both companies need to do more to phase out toxics from products.

As consumers are becoming more informed, the demand for healthier, environmentally-friendly products is growing. And with increasing evidence that endocrine-disrupting chemicals found in personal care products may have links to breast, prostate and thyroid cancer, there is no time to waste in removing harmful ingredients from the marketplace.

ENVIRONMENTAL DEFENCE will continue to reach out to consumers, industry, and government to raise awareness of the need for the elimination of toxic chemicals from cosmetics and personal care products. We hope that in creating this report and sharing it with the public and industry, this will hasten further progress on the greening of the cosmetics sector, and will encourage the companies that have made the least effort in this area to take great steps to catch up with those who lead.

In eliminating the worst of these ingredients from consumer products, these companies will not only protect human health but also the planet from toxic pollution.



APPENDIX: ABOUT THE EVALUATION CRITERIA

Product selection rationale

We know that in terms of sales, the top five consumer product manufacturers creating cosmetics for the Canadian market are: Estée Lauder, Johnson & Johnson, L'Oréal, Procter & Gamble and Unilever.²⁹ These parent companies each oversee many different brands of consumer products in different market segments, and many of these brands are global products available on several continents. To narrow the scope of our research to a manageable level, we chose five familiar brands from each of the five parent companies. We selected a cross-section of products from the different brands so that the parent companies had a product representative in each of the following categories: hair care, deodorant, facial care, skin care and toothpaste. All twenty-five of the products we selected are readily available from most large Canadian retailers.

The Toxic Ten Ingredients

ENVIRONMENTAL DEFENCE has been working to eliminate the **Toxic Ten** chemicals from cosmetics in Canada since 2010, and has been working to protect Canadians from toxic pollution since 2005. The Toxic Ten chemicals are not necessary to make the products, yet by including them in products, companies are polluting the environment and harming human health. While some companies have demonstrated leadership in eliminating chemicals of concern, it is our hope that the Toxic Ten will be eliminated across the board.

PHTHALATES: A group of chemicals found in makeup, fragrances, grooming products, PVC, housing materials, plastics. Known endocrine disruptors, some phthalates are probable carcinogens (DEHP, DiNP). DEHP is on Canada's cosmetics hotlist. Phthalates are already banned from children's toys in Canada, yet they remain common in cosmetics and other products.

FORMALDEHYDE: This known carcinogen is linked to leukemia and nasopharyngeal cancer. Formaldehyde releasing chemicals such as quaternium-15 are used as preservatives in cosmetics.

PARABENS: A group of chemicals with endocrine-disrupting effects; parabens mimic the hormone estrogen, which has raised concerns about a possible link to breast cancer. Parabens are the most widespread preservative used in cosmetics, but there are health alternatives available. Some businesses focused on creating environmentally-friendly products use grapefruit seed extract as an alternative.

TRICLOSAN: An anti-microbial chemical found in cosmetics and household items labeled “anti-bacterial.” Triclosan was declared “toxic to the environment” by Environment Canada in 2012, and research is being conducted to assess how to reduce the amount of triclosan in use. It is an endocrine-disrupting chemical, and reacts with chlorine in tap water to produce chloroform. When exposed to sunlight it breaks down into dioxin (a carcinogen). In 2009, the Canadian Medical Association called for a ban on the use of triclosan in consumer products due to concerns that it contributes to antibiotic resistance. In the fall of 2012, a product recall was issued in Canada for hand sanitizers containing triclosan, due to the presence of *Pseudomonas aeruginosa*, which can be deadly to persons with weakened immune systems, such as those living with cancer, HIV/AIDS, or other health conditions. Earlier that year ENVIRONMENTAL DEFENCE issued the report *The Trouble With Triclosan*, highlighting the threat of antibiotic resistant strains of *p. aeruginosa*, as well as other concerns with the chemical.

SODIUM LAURETH SULFATE AND SODIUM LAURYL SULFATE (SLS/SLES): These are typically petroleum-based and are added to personal care products to act as detergents and foaming agents. They may be contaminated by 1,4-dioxane which is an eye and respiratory tract irritant and is considered a possible carcinogen. Additionally, Sodium Laureth Sulfate and Sodium Lauryl Sulfate can irritate the scalp because of their degreasing nature.

ARTIFICIAL MUSKS, INCLUDED IN “FRAGRANCE/PARFUM”: The inclusion of “fragrance” on ingredient lists usually suggests a variety of hidden chemicals, which do not have to be disclosed because they are considered trade secrets. Hidden within these trade secrets are often high levels of phthalates, artificial musks, and parabens. Phthalates are endocrine-disrupting and have been linked to breast cancer and birth defects, and are often included in fragrance formulations to give a scent staying power. Some artificial musks are already banned in the EU and Canada, but they have been replaced with alternatives that have not been adequately assessed for health and environmental impacts. Fragrance is also linked to allergies, immune system toxicity, headaches and dizziness.

SILOXANES/SILICONE CHEMICALS: Siloxanes (cyclomethicone, cyclotetrasiloxane, cyclopentasiloxane, and cyclohexasiloxane) are a group of chemical compounds that are used in products to make hair and skin appear smooth. Siloxanes are primarily generating concern due to their detrimental effects on the environment though there are studies indicating human health impacts as well. Siloxanes are absorbed by dermal exposure through personal care product use. Siloxanes can contribute to irritation and acne when on the skin. Furthermore, animal studies have linked siloxane exposure to endocrine disruption. Siloxanes are also possible human reproductive or development toxins.

COAL TAR COLOURS: P-phenylenediamine is a common ingredient in hair dye; studies have linked exposure to p-phenylenediamine and allergic contact sensitization and dermatitis, acute dermatitis, and severe facial oedema. There have also been concerns expressed around negative health effects from long-term exposure, including a possible link to cancer. Some common short-term reactions are itching, burning hives and blistering of the skin.

BHA/BHT: Butylated hydroxyanisole (BHA) and butylated hydroxytoluene (BHT) are similar synthetic antioxidants that are used as preservatives in personal care products and cosmetics. There have been rising concerns with the use of these ingredients due to animal and human health studies indicating carcinogenicity, endocrine disruption, development toxicity and allergies.

PETROLATUM: Commonly known as petroleum jelly, it is a virtually odourless and tasteless gel that helps to smooth and soften skin. Because it is a petroleum product, it could be contaminated with polycyclic aromatic hydrocarbons (PAHs). Studies have indicated that exposure to PAHs is associated with cancer. Additionally, PAHs can cause skin irritations and allergies.

The Need for Full Disclosure of Fragrance Ingredients

Under Canadian cosmetics regulations, manufacturers are not required to disclose fragrance ingredients in cosmetics and other consumer products. Fragrance ingredients can include endocrine disruptors and potent allergens. Phthalates are linked to asthma, and parabens mimic the hormone estrogen; these chemicals, along with allergens, and artificial musks which have not been adequately tested for safety, are often included in fragrance. Because manufacturers are not required to disclose these ingredients on labels, it is not possible for consumers to make an informed choice. Updating the regulations regarding the labelling of cosmetics so as to require full disclosure of fragrance/parfum would allow health conscious and environmentally conscious Canadians to make better choices.

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