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Our clients are Fortune 500 consumer packaged goods companies, energy conglomerates, green entrepreneurs, and everything in between. The common thread is their genuine legitimate leadership in environmental sustainability.

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COMPANY OVERVIEW

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EXECUTIVE SUMMARY

Since the first "Sins of Greenwashing" study was published in 2007, the world has re-awakened to the issue of false and misleading environmental claims. Although we at TerraChoice have been pleased by these developments, we hope to see more reporting that is encouraging of business. Scrutiny of environmental claims will be positive only as long as it manages to discourage greenwashing while simultaneously encouraging more and more green product innovation and commercialization.

With that in mind, we launched this edition of the Sins of Greenwashing research to update the state of knowledge of environmental claims, to focus particular attention on home and family products, and to add a constructive perspective to the debate.

What we found is fascinating and telling, and includes both good news and bad.

Since 2009, the number of "greener" products has gone up by 73%

Consumers are offering companies both a carrot and a stick. They reward green product innovation, and they scold greenwashing. And it appears to be working. There are more green products than ever before, there's a little less greenwashing, and there is good evidence that companies - and big retailers - are learning with experience. Consumers are creating a gradually greener retail world.

- CONSUMERS ARE CHANGING THE WORLD FOR THE BETTER: There are many more "green" home and family products and there's a little less greenwashing. In the 24 stores we visited in both 2009 and 2010 (same brand, same location, same size), the number of "greener" products (products claiming to be green) increased by 73%. And, although greenwashing is still a significant problem (this year we have found that over 95% of "greener" products commit one or more of the seven "Sins of Greenwashing"), there is evidence that it is improving. The proportion of sin-free products appears to have doubled in each of the last two years, from less than 1% in 2007 to approximately 2% in 2009, and to almost 4.5% in 2010.
- **COMPANIES IMPROVE WITH PRACTICE:** Categories of products that have more experience with "greening" have less greenwashing, more reliable "green" certification, and continued "green" growth.
- BIG BOX STORES ARE GENTLE GREEN GIANTS: With less greenwashing, more "green" product selection, and more use of legitimate certification we find that consumers can trust big box stores to provide the best selection and integrity of "greener" product claims.

Categories that have more experience with "greening" have 5 times more "sin-free" products

WHAT WE FOUND (CONTINUED)

- ECO-LABELING IS AN IMPORTANT SOLUTION, and sometimes part of the problem. Of products certified by an ISO 14024-based program, more than 30% were sin-free (compared to the 4.4% studywide result). Clearly, good eco-labeling helps prevent (but doesn't eliminate) greenwashing. Unfortunately, the use of fake labels (a sin we first identified in 2009 and dubbed the "Sin of Worshiping False Labels") has increased dramatically.
- **BPA + PHTHALATE-RELATED CLAIMS ARE SKYROCKETING.** The percentage of products making BPA-free claims has increased by 577%, and those making phthalate-free claims increased in 2550%! Two-thirds of these claims appear on toys and baby products.



"GREEN" IS A DIFFICULT WORD. IT'S EVOCATIVE AND POWERFUL.

Consumers and companies alike are attracted to it. But it's vague, and can mean something different to everyone that uses or hears it. Cautiously (and only in quotation marks), we use "green" and "greener" to describe the products in this study. We mean simply products that claim to offer an environmental benefit.

INTRODUCTION

Since the first "Sins of Greenwashing" study was published in 2007, the world has re-awakened to the issue of false and misleading environmental claims. Regulators have become re-engaged (the Canadian Competition Bureau re-published its environmental claims guidelines in 2008, and the U.S. Federal Trade Commission appears poised to re-publish its Green Guides in 2010 or 2011). The popular press has reported the issue widely. And, various movements - grassroots, legislative, and advocacy - are developing solutions.

Although we at TerraChoice have been pleased that the Sins of Greenwashing research has contributed to this awareness, we hope to see more balance in media coverage to encourage business to do better. Scrutiny of environmental claims will be positive only as long as it manages to discourage greenwashing while simultaneously encouraging more and more green product innovation and commercialization.



Striking this balance is the essence of what we do at TerraChoice: combine great science and great marketing to help market and sell genuinely "greener" products.

What customers demand, companies will do their best to provide. And as they compete for the attention of consumers and for profit, they will innovate and leapfrog one another in that pursuit. So, as consumers demand greener products, and companies race to meet that demand, they will advance the cause of environmental sustainability dramatically; perhaps more rapidly and efficiently than any governmental intervention ever has or could produce.

But competition and free markets need good information if consumer demand is to have anything but superficial effect. With that in mind, in this edition of the Sins of Greenwashing research (the methodology is described in Appendix 1), we set out to do two different things:

- FOCUS ON THE HOME AND FAMILY, since these are the products that give consumers a daily opportunity to use their purchasing to make a "greener" world; and,
- FOCUS ON THE CONSTRUCTIVE FINDINGS and implications of the research (notwithstanding the general conclusion that greenwashing is, still, a significant problem).





- is "green" based on an unreasonably narrow set of attributes without attention to other important environmental issues. Paper, for example, is not necessarily environmentally-preferable just because it comes from a sustainably-harvested forest. Other important environmental issues in the paper-making process, including energy, greenhouse gas emissions, and water and air pollution, may be equally or more significant.
- SIN OF NO PROOF: committed by an environmental claim that cannot be substantiated by easily accessible supporting information or by a reliable third-party certification. Common examples are tissue products that claim various percentages of post-consumer recycled content without providing any evidence.
- SIN OF VAGUENESS: committed by every claim that is so poorly defined or broad that its real meaning is likely to be misunderstood by the consumer. "All-natural" is an example. Arsenic, uranium, mercury, and formaldehyde are all naturally occurring, and poisonous. "All natural" isn't necessarily "green".
- SIN OF IRRELEVANCE: committed by making an environmental claim that may be truthful but is unimportant or unhelpful for consumers seeking environmentally preferable products. "CFC-free" is a common example, since it is a frequent claim despite the fact that CFCs are banned by law.
- SIN OF LESSER OF TWO EVILS: committed by claims that may be true within the product category, but that risk distracting the consumer from the greater environmental impacts of the category as a whole. Organic cigarettes might be an example of this category, as might be fuel-efficient sport-utility vehicles.
- SIN OF FIBBING: the least frequent Sin, is committeed by making environmental claims that are simply false. The most common examples were products falsely claiming to be Energy Star certified or registered.
- SIN OF WORSHIPING FALSE LABELS: The Sin of Worshiping False Labels is committed by a product that, through either words or images, gives the impression of third-party endorsement where no such endorsement actually exists; fake labels, in other words.

OTHER CLEANING PAPER LAWN + GARDEN 4,744 PRODUCTS BABY CARE BUILDING + CONSTRUCTION TOYS FLECTRONICS OFFICE PRODUCTS HOUSEWARES CLEANING PRODUCTS 2010 HEALTH + BEAUTY 2009 **IN GREENER PRODUCT**

2,739

PRODUCTS

OFFERINGS

A GREENER RETAIL WORLD

It's easier than ever to find "greener" products for our homes and families.

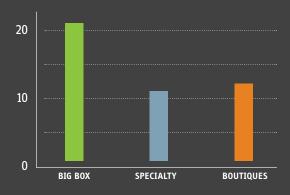
In the last edition of the Sins of Greenwashing study, we found that "greener" product offerings had grown by 79% between 2008 and 2009. Green markets were strong and growing.

That trend continues in 2010. At the two dozen stores we visited both in 2009 and again for this year's study, "greener" product offerings increased by a total of 73%, from 2,739 products in 2009 to 4,744 products in 2010. More specifically:

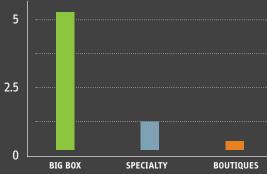
- In nine repeat-visit stores, the number of "greener" products increased by more than 200%. All of these stores are very large and well-known brands.
- Of all 24 repeat-visit stores, only four showed a decline in their "greener" product offering between 2009 and 2010. Three of these showed "greener" product declines of between 10 and 20%. One showed a decline of almost 61%.

Big box stores offered a much higher percentage (22.8%) of home and family products with legitimate green certifications than either specialty (11.5%) or green boutiques (12.8%)

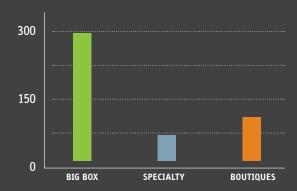
% OF PRODUCTS **USING LEGITIMATE** GREEN CERTIFICATION



% OF SIN-FREE **PRODUCTS**



OF "GREENER" PRODUCTS



GENTI E GREEN GIANTS

Big box stores are the best providers of trustworthy "greener" products.

It has recently been popular to question the motives and legitimacy of "greening" at large corporate retailers. We were interested, consequently, in whether or not a meaningful difference could be found in the number and quality of "greener" claims on home and family product offerings at three different categories of retailers: big box stores with large footprints and multiple unrelated product categories (we visited thirteen such stores); specialty retailers which focus on one product category or multiple, related product categories (we visited eleven of these stores); and, green boutiques - smaller stores that self-identify as offering only "greener" products (we visited five of these).

Taken together these findings suggest - perhaps counterintuitively, and whatever the motives of the retailers - that consumers can trust big box stores to provide the best selection

CASE STUDY RONA & RESPONSIBLE RETAILING

The largest Canadian distributor and retailer of hardware, home renovation and gardening products is also a leader in "green" retailing. With close to 700 stores, nearly 30,000 employees, and a market share of more than 17.5%, RONA is paving the way to responsible retailing.

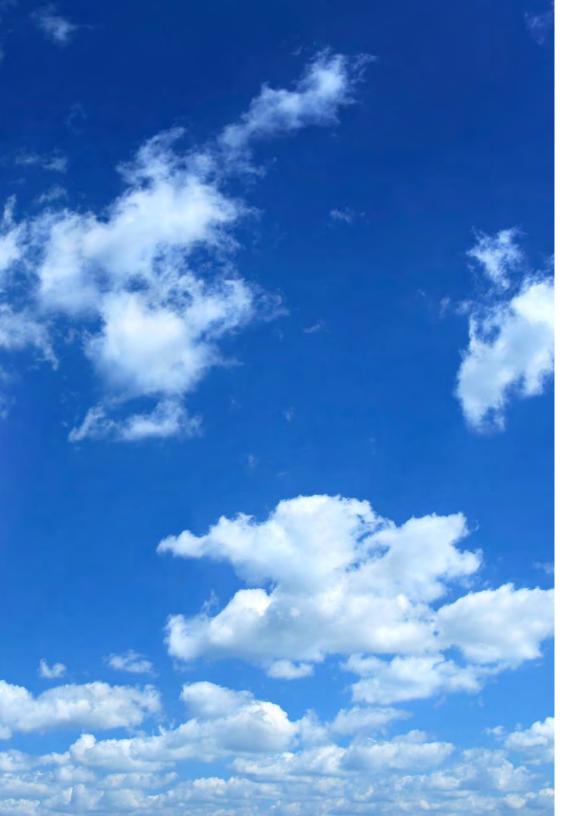
In the 2010 Sins study, TerraChoice found a 245% increase in the number of green product offerings at an Ottawa RONA location between 2009 and 2010. Normand Dumont, Executive Vice-President of Merchandising at RONA, explains this rise as a function of the company's solid environmental platform and critical buy-in from CEO Robert Dutton. This support bolstered sustainable development's place in RONA's four-year strategic plan, which includes introducing 442 of RONA's ECO brand of products over four years. At year three, they are at 98% of this goal. They are also introducing 1,673 products designated as "Eco-responsible" choices by a credible third-party and have already reached 84% of their target ending

Behind marketing efforts including in-store signage for both RONA ECO and Eco Responsible products, RONA is taking a third-party approach to environmental product assessment. Founding their choices and own brand on life cycle analysis (LCA) principles developed in partnership with the International Chair in life cycle assessment of l'École polytechnique de Montréal, RONA works to assure consumers that they are not greenwashing.

In the fall of 2010, RONA is poised to launch its Responsible Procurement Policy. "We want to make a real and lasting impact." says Dumont. "We want to focus on the product that has the most significant impact on our footprint." Look for an even deeper emphasis on the social side of products to ensure they are responsible to the planet and people, too.

and integrity of "greener" product claims. (Here's one possible explanation: The combination of the scrutiny they receive and their power over their supply chains puts large retailers in a better position than smaller retailers to demand progress on greenwashing.)

- BIG BOX STORES OFFERED A MUCH HIGHER PERCENTAGE (22.8%) of home and family products with legitimate "green" certifications than either specialty retailers (11.5%) or green boutiques (12.8%).
- BIG BOX STORES HAVE MORE PRODUCTS THAT ARE FREE OF **GREENWASHING** (5.6%) than either specialty retailers (1.7%) or green boutiques (0.5%).
- THERE ARE MORE "GREENER" PRODUCTS, ON AVERAGE, AT BIG BOX STORES (293 per store) than at either green boutiques (109) or specialty retailers (85).



GREENWASHING IS A PERSISTENT PROBLEM

Green claims on home and family products are getting better, but the vast majority is still misleading.

Consumer demand for greener products is changing the world. As they compete for the attention of "green" consumers and for profit, companies are innovating and leapfrogging one another in that pursuit. As evidence of this, the "Sins of Greenwashing" research has found - for two years in a row - that the number of "greener" products on offer has increased by more than 70%.

But if "green" demand is to create genuinely "greener" products, the environmental claims of those products must be true and transparent. This is why greenwashing is such a significant impediment to continued progress.

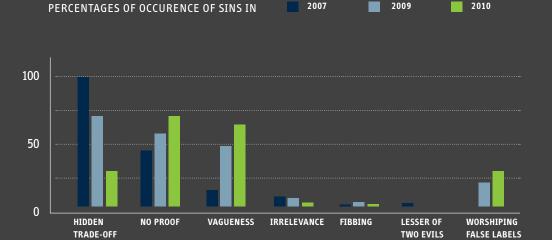
CANADA USA вотн **TOTAL UNIQUE HOME & FAMILY PRODUCTS EXAMINED FOR** THIS REPORT

In this year's Sins of Greenwashing research, we examined 5,296 unique home and family consumer products. This sample was made up of:

- 2,583 products found in Canada.
- 1,960 products found in the United States.
- 753 found in both countries.
- Visits to 19 stores in Canada, and 15 stores in the U.S.

These 5,296 home and family products made a total of 12,061 "green" claims.

(continued on next page)





- GREENWASHING IS STILL A SIGNIFICANT PROBLEM. Applying the same tests as we have in past years - tests based on the FTC Green Guides, the Canadian Competition Bureau Guidelines for Environmental Claims, ISO 14021, and our own understanding of global best practice - we find that over 95% of "greener" products commit one or more of the seven Sins of Greenwashing.
- BUT, GREENWASHING IS DECLINING. Although the numbers are very small the proportion of "sin-free" products is increasing at a rate that is statistically significant. In fact, the number of sin-free products appears to have doubled in each of the last two years, from approximately 1% in 2007 to less than 2% in 2009, and to almost 4.5% in 2010. We need to be cautious in our interpretation of such small numbers, but we believe they're early evidence of good news.
- AND, GREENWASHING IS CHANGING. There are several noteworthy patterns in the evolution of greenwashing this year. The "Sin of the Hidden Trade-off" declined sharply from 2009 (71.3% of all products) to 2010 (27.4%). This is at least partially a result of the variation between the way we defined and applied this sin between 2009 and 2010. The "Sin of No Proof" increased from 56.4% of all products to 70.1%, much of which was related to BPA-free (and related) claims on toys and baby products. And, the "Sin of Worshiping False Labels" increased from 23.3% to 30.9%. The "sins" themselves are described in detail on page 10.



COMPANIES IMPROVE WITH PRACTICE

With experience in green marketing greenwashing declines, certification grows, and real green growth continues.

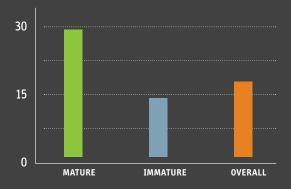
"Green" is newer to some home and family product categories than others. It's older in building and construction products and much newer to toys and baby products. (The latter has yet to see a well-organized movement or standard emerge, although an environmental standard is currently being developed by the EcoLogo™ Program.)

To examine whether or not "green" maturity makes a difference to the claims in a sector, we constructed two clusters of product categories, representing their relative experience with "greening". In the "mature greening" category we included building/ construction products, office products, cleaning chemicals, and tissue products. In the "immature greening" category we included toys, baby products, and consumer electronics.

PERCENTAGE OF **GREEN GROWTH** 2009 - 2010

120 60 0 MATURE IMMATURE OVERALL

PERCENTAGE **USE OF LEGITIMATE** CERTIFICATION



GOOD GREEN MARKETING 101

- BE SELF-HONEST ABOUT THE WHOLE, lifecycle-based, environmental impacts of your product. Acknowledge them and address them one step at a time.
- MAKE, CLAIM, and ask your customers to support stepwise progress
- ASK YOUR CUSTOMERS TO JOIN YOU ON A JOURNEY to ever more sustainable products. This is the most honest message, (and it makes for great and long-lasting customer relationships).

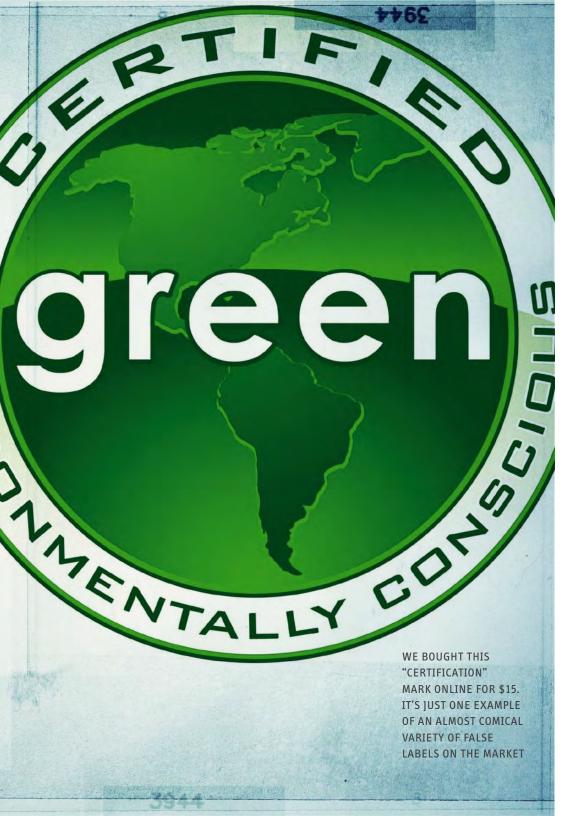
- **GROWTH CONTINUES IN THE LONG-TERM.** Although the building/construction, office, cleaning and tissue categories have been "greening" for a number of years, they have all continued higher-than-average rates of growth in the last twelve months. Compared to the study wide growth rate of 73%, "greener" product offerings in mature categories increased by an average of 104.3% (building/construction - 108%, office - 126%, cleaning chemicals - 106%, tissue - 77%).
- USE OF LEGITIMATE CERTIFICATION INCREASES WITH MATURITY. There is considerably more use of legitimate certification in the more mature "green" categories. With an average frequency of 28.8% (and a narrow range of between 24% and 32%) legitimate labeling was considerably more common than the study wide result (19.8%) and much more frequent than it was in the less mature categories (13.8%).
- **GREENWASHING DECLINES WITH EXPERIENCE.** Perhaps most significantly (and notwithstanding our overall observation that greenwashing is still far too common in all categories), the proportion of "sin-free" products is more than five times greater in mature (5.1%) than in immature (0.3%) categories and is greater than the study-wide result of 4.4%. Companies get better with experience (thanks to continued consumer scrutiny). (Tissue products are an outlier in this finding. With a sin-free rate of only 0.8%, it showed considerably more greenwashing than any of its "mature" counterparts and more even that the study-wide sin-free result of 4.4%.)



ECO-LABELING: PROBLEM + SOLUTION

The last three years have seen more growth in "greener" home and family products than has ever been seen before. As green claims have soared so has consumer scrutiny, the demand for better evidence of claims and - consequently the demand for third-party endorsement. Environmental standards and certification ("eco-labels", more commonly) emerged as one protection against greenwashing in the 1980's wave of green product launches. In fact, the International Organization for Standards (ISO) established best practice for eco-labeling more than a decade ago, in ISO 14024.

Environmental standards and certification will be essential to continuing progress in "greener" products. Ironically, the potential importance of eco-labels has led to a proliferation of them, and to a multitude of types and degrees of meaningfulness and integrity. In last year's Sins of Greenwashing study, we recognized this problem as a new sin: the "Sin of Worshiping False Labels".



- LEGITIMATE GREEN STANDARDS HELP FIGHT GREENWASHING. Of products certified by an ISO 14024-based program (EcoLogo, Green Seal, and Nordic Swan were the three that we found in this study) more than 30% were sin-free (compared to the 4.4% studywide result). In other words, good eco-labeling helps prevent (but doesn't eliminate) greenwashing.
- FALSE ECO-LABELING IS INCREASING. The use of fake labels (a sin we first identified in 2009 and dubbed the "Sin of Worshiping False" Labels") is increasing. More than 32% of "greener" products found in this study carried such a fake label, compared to the 26.8% in 2009.
- FALSE LABELS ARE A DIME A DOZEN. Ease of access to false. completely meaningless eco-labels has become almost comical. By searching "certified green" at many stock image websites, we were offered meaningless false eco-labels downloadable for only a few dollars.



WHAT'S A GREEN MOM TO DO?

- SUPPORT "GREEN" PRODUCTS WHENEVER YOU CAN. even if you suspect greenwashing. Since most greenwashing a "greener" product (it's probably not as "green" as it claims). hears you say: "I like this. I want more green products. Please keep trying." (And the market will.)
- CHOOSE THE GREEN PRODUCT THAT OFFERS THE BEST PROOF. when you see them, and choose more information over less information. When you do, you're more likely to wind up with the "greenest" choice and, you tell the market "I want more information!" (And it will hear you again).



TOYS & BABY PRODUCTS

Parents care, and companies are trying, but greenwashing is rampant.

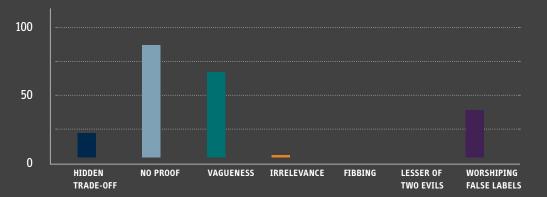
Despite the adage that few consumers are more attentive to health and environment than new parents, wide scale "greening" of toy and baby products is only a recent phenomenon. Now, finally, it is growing rapidly.

We found a total of 168 toys and 706 baby products that made a total of 2,073 "greener" claims. In addition to multi-category retailers, our field work included six specialty toy/baby stores of various sizes and brands.

BPA AND PHTHALATE-RELATED CLAIMS ARE SKYROCKETING

- More than any other single claim that we observed, "BPA-free" and "phthalate-free" (and variations on the theme) have become more frequent in the last year. The percentage of products making BPAfree claims increased by 577%, and those making phthalate-free claims increased by 2,550%!
- Two-thirds of these claims appear on toys and baby products.
- An extraordinary 44% of all "green" baby products include a BPA-free (or similar claim), and 10% include a phthalate-free claim. Only 5% of "green" toys make either a BPA- or phthalate-free claim.

TOYS & BABY PRODUCTS. PERCENTAGE OF PRODUCTS COMMITTING EACH SIN



KEY LESSONS FOR GREAT GREEN CLAIMS TOYS & BABY PRODUCTS

- TRANSPARENCY AND PROOF. It's not good enough that you are confident that your product is free of BPA (or phthalates, lead, mercury, PVC and so on). Parents deserve proof. Get the studies.
- **LEARN FROM THE LESSONS OF OTHERS.** Pay attention to the false labels, hidden trade-offs, most notably) and avoid them.
- QUICKLY BUILD OR ADOPT A CERTIFICATION SYSTEM. The scrutiny is imminent and the winners will be the first to build unequivocal trust with customers. Unanimous agreement that the health of children was non-negotiable led quickly to the demand for third-party certification of green claims. The same needs to happen for toys and baby products.

- VERY HIGH RATES OF GROWTH OF "GREENER" PRODUCT **OFFERINGS.** Since 2009 "greener" toy offerings have increased by 150%, and "green" baby products by 194%. At stores that specialize in this category, the rates of growth in "greener" products are even greater, ranging from 191% to 375% and averaging 289%. Compare these to the all-product "greener" product growth rate of 73%.
- MORE GREENWASHING. As compared to the study-wide finding of 4.4%, less than 1% of the "greener" toys and baby products are free of the Sins of Greenwashing. We did not find a single "green" toy (0.00%) that was free of greenwashing, and only 0.8% (only 6 of 706 products) of baby products were "sin-free". (The only other category in which we found zero "sin-free" products was consumer electronics.)
- LACK OF EVIDENCE. The "Sin of No Proof" is the most frequent greenwashing "sin" on toys and baby products. And, with 89% of all "greener" toys and baby products committing this sin, it is a more pervasive problem than in other categories (the overall frequency in other categories is 64%.)
- BPA AND PHTHALATES. More than two-thirds of all of the BPA-free claims (and similar variations) in this study were found on toys and baby products, as were more than half of all of the phthalate-free claims. In fact, 44% of all "green" baby products made a BPA-free or similar claim.



KEY LESSONS FOR GREAT GREEN LAIMS ON CLEANING PRODUCTS

- **EXPLAIN THE CLAIM.** "Environmentally-friendly" (or the hundreds of variations on the theme) isn't in itself the problem. It's the not explaining yourself that gets you in trouble. Since no product is actually (yet) "friendly" to the environment, and since recycled fiber (or sustainable harvesting, or low toxicity) isn't the only environmental impact of a product, loose language like "green", "eco", "earth" can only mislead. Be honest with yourself, and then with your customers, about what you mean by these terms.
- **KEEP LEANING ON LEGITIMATE STANDARDS.** This is a category that is already comfortable with legitimate certification. Whether it's EcoLogo, FSC, or another, these are programs with deep experience in cleaning chemistry and tissue products. Look for certification cost efficiencies between your B2B and B2C brands. Lean on your manufacturers or private labelers to deliver certification through extended licenses. Partner with certifiers to explain this advantage to customers. And partner with retailers and certified products in other categories to deepen the value and competitive advantage.

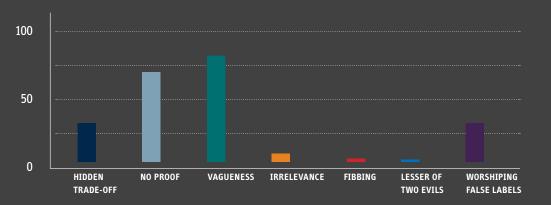
HOUSEHOLD **CLEANING PRODUCTS**

Green cleaning claims are getting better, but vagueness is still a problem.

Once a niche category and the territory of small (even antiestablishment) brands, green cleaning has hit the mainstream. With recent green product launches, acquisitions, and campaigns from some of the world's largest consumer packaged goods companies, green cleaning has entered the big leagues.

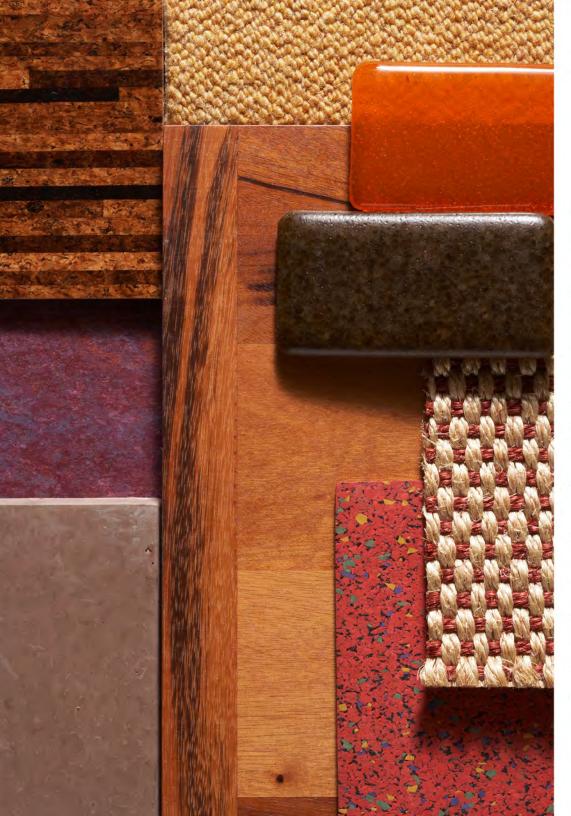
By "cleaning products", we mean both cleaning chemistry (such as detergents, window cleaners, and general purpose cleaning liquids), and tissue products (such as toilet paper, paper towels and so on). In this study, we examined 605 cleaning chemistry products, and 120 tissue products which we found in a variety of retailers including grocers, DIY construction outlets, and houseware specialty retailers. They made a combined total of 2,001 "green" claims.

CLEANING PRODUCTS. PERCENTAGE OF PRODUCTS COMMITTING EACH SIN





- DIFFERENT RATES OF GROWTH. While the rate of "green" inventory growth in this category (101%) is greater than the overall study result (73%), this is largely accounted for by "green" cleaning chemicals (105%). Tissue products show a much more typical rate of growth (77%). This is consistent with the much longer presence of environmental scrutiny in the paper industry. In particular, claims related to recycled fiber content have been common for decades.
- **GREENWASHING VARIES.** Although the overall rate of greenwashing in this category is fairly typical (a sin-free rate of 3.73% as compared to the all-study result of 4.4%), this varies significantly by sub-category. Whereas the rate of sin-free products in cleaning chemicals is average. 4.3% as compared to the overall study result of 4.4%, tissue products have a much higher rate of greenwashing (only 0.8% were sin-free).
- VAGUENESS IS THE MOST COMMON PROBLEM. The Sin of Vagueness is the most frequent problem (committed by 77.4% of products) in this category, and was more frequent than the all-study result (67.3% of products). Some frequent examples include unelaborated uses of: 1 Eco-friendly 2 Environmentally-friendly 3 Earth-friendly 4 Environment safe 5 Harnessing nature 6 Eco-chemistry
- GOOD USE OF LEGITIMATE CERTIFICATION. 32% of cleaning products displayed certification by a legitimate eco-label, as compared to only 19.8% in the study-wide sample. (Principally, these certifications were EcoLogo™ and Green Seal™). We speculate that this is a reflection of the importance of eco-labeling in the professional janitorial/sanitation industry. In that space, procurement demand for greener and healthier products has been accompanied by a demand for certification to just a few recognized standards. Just as the formulation experience and economies of scale have spilled over from professional to consumer markets, so has the importance and use of legitimate certifications.



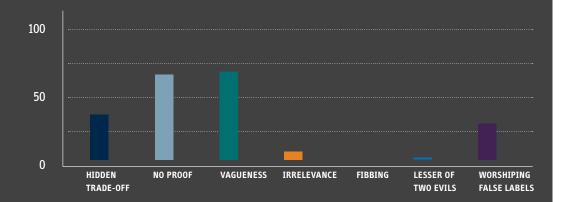
DIY BUILDING/ CONSTRUCTION PRODUCTS

Home DIY is getting greener, now claims need to get better.

Since North Americans spend most of their time indoors, it's small wonder that the green building movement has been so strong in recent years. Families increasingly understand that indoor environments impact our health (and especially the health of more vulnerable people like kids, seniors and patients). And we know that the way we build, power, and heat our homes, offices and other buildings has significant impacts on the external environment.

In this study we examined a total of 729 building and construction products, the kind that are found at typical big box DIY retailers. These products made a total of 1,726 "green" claims. Our field work included five specialty stores in this category, all of which were large big-box retailers.

DIY BUILDING/CONSTRUCTION. PERCENTAGE OF PRODUCTS COMMITTING EACH SIN



KEY LESSONS FOR GREAT GREEN CLAIMS ON DIY BUILDING/CONSTRUCTION

- **ENOUGH ALREADY WITH THE EXAGGERATION.** The most unique ing with one good environmental thing, and claiming to be "green" on the strength of it. "Green" is a ladder, and a long one. Water, energy, toxics, recycled contents are each just rungs. Be proud of but don't mistake a rung for the top. (And invite your customers to join you on the climb, which builds long-lasting relationships.)
- **KEEP CERTIFYING.** Certification schemes are rapidly maturing standards will be available (UL Environment is developing a leverage through retailers and non-competitive partners.

- VERY STRONG "GREEN" GROWTH. With 108% more green products in 2010 than in 2009, building and construction products are being greened more quickly than the rest of the marketplace (a study-wide increase of 73%). At the five DIY specialty stores we re-visited this year, the average increase in green product offerings was almost 138%. At the two stores we have now studied three years in a row. the three year increase in green product offerings averages 410%.
- LESS GREENWASHING. At just over 6%, the proportion of "sin-free" products in this category is slightly but meaningfully higher than the all-product study result of 4.4%.
- "HIDDEN TRADE-OFFS" ARE UNUSUALLY COMMON. Compared to a study-wide frequency of 27.4%, almost 40% of building and construction products were found to commit the "Sin of the Hidden Trade-off". The most common of these single-benefit claims included: air quality (100 products); energy (61 products); and, recycled content (41 products).
- IMPROVED USE OF LEGITIMATE STANDARDS. Although the studywide result showed a decline in the use of legitimate eco-labeling from 23.4% in 2009 to 19.8% in 2010, the reverse was true in this category. Perhaps because of their greater maturity of "green" attention in this space, 31.7% of products turned to legitimate eco-labels. The most credible certifications include ENERGY STAR, GREENGUARD, UL Environment and EcoLogo.



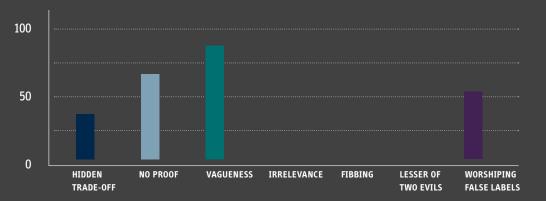
CONSUMER ELECTRONICS

Consumer electronics are new to green, and it shows.

In some circles - policymakers and professional purchasers, notably - attention to the environmental consequences of electronic products has been growing for several decades. (This is particularly true in relation to energy efficiency and endof-life management, but electronics have also been associated with issues manufacturing, toxicity, resource extraction and depletion, landfill contamination, and packaging waste.) For consumers, however, "greener" electronics is a relatively new concept. As interest and scrutiny spills over from B2B to B2C markets, consumer electronics are poised for rapid "greening".

We examined a total of 85 consumer electronic products, which made a total of 204 "green" claims. All of these products were found at general product retailers, rather than electronic specialty retailers. Their claims related to toxicity of components, energy efficiency, packaging-related benefits such as recycled content and biodegradability, as well as frequent use of very vague environmental jargon.

CONSUMER ELECTRONICS PERCENTAGE OF PRODUCTS COMMITTING EACH SIN.



KEY LESSONS FOR GREAT GREEN CLAIMS ON CONSUMER ELECTRONICS

- **DON'T HESITATE.** "Green" growth in consumer electronics was relatively slow between 2009 and 2010, but - judging by the experience of other sectors - business and institutional demand will soon and suddenly spill over into consumer markets. Brands
- **EMPHASIZE PROOF.** With such a high rate of greenwashing this category will be well-served by consumer-facing claim endorsements. Multi-attribute standards such as IEEE 1680, and single-attribute verifications such as UL Environment's Environmental Claim Validation, will both be valuable to

- STILL RELATIVELY SLOW GREEN GROWTH. Whereas the overall number of "greener" products increased by 73% between 2009 and 2010, in consumer electronics we found an increase of only 13%.
- HIGH RATE OF GREENWASHING. Not a single "green" electronic product was found to be free of greenwashing. (The only other category in which this is true is toys, another relative newcomer to "green").
- FALSE LABELS A PARTICULAR PROBLEM. More than half (51.8%) of the "green" products in this category committed the "Sin of Worshiping False Labels". In all product categories, the rate of false labels was only 31%. Almost all of these "false labels" appeared to be self-generated and intended to create the appearance of thirdparty endorsement. Most (34 of 45) were simply seal-like icons with variations of "eco", "environment", "environmentally-friendly", and so on.

APPENDICES

APPENDIX 1: METHODOLOGY

Overview

Between March and May of 2010, our researchers visited 19 retail stores in Canada and 15 in the United States. These researchers had instructions to inventory and record the details of every product that made an environmental claim. They recorded a total of 5,296 products which made a total of 12,061 "green" claims. We then tested those claims against best practice, notably against guidelines provided by the U.S. Federal Trade Commission, the Competition Bureau of Canada, and the ISO 14021 standard for environmental labeling. We used the "Sins of Greenwashing" framework from our previous studies to organize the findings, and we looked for other patterns in the results.

Store selection

In order to mitigate regional bias, data was collected from multiple regions in both Canada and the United States (Philadelphia, Ottawa, Toronto, Miami and Niagara). All told, the sampling occurred at retailers that collectively have more than 40,000 stores distributed across North America.

In addition, and to address a criticism we received in past years, we included both big box and large specialty retailers as well as a sample of boutique green specialty stores.

To facilitate longitudinal analysis, we visited a total of twenty-four locations that had also been included in previous "Sins of Greenwashing" research.

Analysis & Interpretation

To mitigate the risk of inconsistent interpretations by different researchers, each product's data was independently evaluated by two analysts. Specifically:

- · Each claim was independently tested against the Seven Sins of Greenwashing criteria, the U.S. Federal Trade Commission, Competition Bureau of Canada, and the ISO 14021 standard for environmental labeling.
- If a product offered further information in accompanying literature, that information was accepted as part of the claim.

- If a product suggested that further information could be located at a product website, or through a customer service hotline, the researchers investigated these sources for further detail.
- · Claims that may be absolved of committing any of the Sins of Greenwashing by way of certification that the product carried were measured against the attributes which are verified by the certifying standards.
- Products for which there was a diverging opinion among analysts were flagged, and the dispute was resolved by the project lead.
- All analysts met at regular intervals to discuss trends and systemic issues that arose during their analysis.

Quality Control & Quality Assurance

Consistency in methods of data collection and analysis was maximized in several ways:

- Researchers in all locations received instruction and training in collection methodologies from the same principal researcher.
- Data collection sheets, guidelines and analysis procedures were standardized and tested in advance.
- Trial collections and analyses were undertaken to further assist standardization.
- A randomly selected 5% of the product analyses were scrutinized by the principal researcher for consistency and conformity with analysis guidelines.

APPENDIX 2: LEGITIMATE ENVIRONMENTAL STANDARDS & CERTIFICATIONS





EcoLogo is an ISO-14024 Type 1 environmental standard and certification program. It was founded in 1988, and today certifies thousands of products against more than 70 standards. The two variations of the certification mark are for Canadian and international markets.

For more information, visit www.ecologo.org







UL Environment (ULE) offers a number of environmental endorsement programs. The ULE **Energy Efficiency Certification** program tests and certifies products for their compliance to a variety of energy efficiency requirements, including those of Natural Resources Canada, California Energy Commission, and Energy Star. The Environmental Claim Validation program tests and verifies specific environmental claims such as recycled content, VOC emissions, bio-based content, and water efficiency. The ULE Sustainable Products Certification program will certify products against ISO 14024-type standards.

For more information, visit www.ulenvironment.com

In our view, best-in-class environmental standards and certifications are those that are consistent with ISO 14024. These programs are transparent, life-cycle based, leadership-focused, and third-party verified. In North America, EcoLogo and Green Seal are the only two such programs commercially available today. UL Environment is currently developing standards that also will meet these conditions.

Nevertheless, a number of other environmental standards and certifications deliver enough credibility that we recognized them as "legitimate" in this research (principally for the purpose of screening products against the "Sin of Worshiping False Labels"). These are the standards and certifications that we recognized as "legitimate" for this purpose:

LEGITIMATE ENVIRONMENTAL STANDARDS AND CERTIFICATIONS	
Biodegradable Products Institute	Natural Products Association
CFPA	Nordic Swan
CRI Green Label	PEFC
EcoCert	Rainforest Alliance
EcoLogo	SCS
ENERGY STAR	SFI
OKO-TEX	Skal EKO
Fair Trade Certified	Soil Association
FSC	UL Environment Environmental Claim Validation
Green-E	UL Environment Energy Efficiency Verification
GREENGUARD	USDA Organic
Green Seal	Water Sense



