

# Way Off Target

*A Critical Assessment of Target's  
PVC Products & Packaging*



Center for Health,  
Environment & Justice  
May 2007

## Dear Target Shareholder or Customer:

Target sells many products made out of or packaged in polyvinyl chloride (PVC), known as the poison plastic. PVC is the most hazardous plastic to our health and environment, releasing toxic chemicals linked to cancer and birth defects. Target's sale of PVC products and packaging poses major hazards to our health and environment, and avoidable legal, financial, and reputational risks to the company.

This is surprising and disappointing given Target's sustainability initiatives. Phasing out PVC is fully in line with Target's environmental programs, particularly its green purchasing initiative, commitment to recycling and the "social, economic and environmental health of the communities we serve," and its efforts to identify "packaging options with fewer environmental impacts and greater recycling potential."

Why does this report focus on Target? Why not another major retailer like Wal-Mart? Unfortunately Target is way behind Wal-Mart and other companies in phasing out this unnecessary toxic plastic. Wal-Mart has publicly committed to phasing out private label PVC packaging and children's lunchboxes and is beginning to reduce PVC use in building materials. Other leading retailers and manufacturers are also working to phase out PVC including Costco, Ikea, Johnson & Johnson, Microsoft, Nike, SC Johnson, and other major companies. Safer, cost-effective alternatives are available. Target has an opportunity to demonstrate it is not an industry laggard, but instead is a leader in selling safe and healthy products.

Target was contacted over one year ago about this issue, when a coalition of over sixty health and environmental groups sent a letter expressing our deep concern about this issue. Target responded publicly and stated that they are "exploring alternatives to PVC." Over seven months later, we have not seen any plan to evaluate alternatives. During this same time period, over 40,000 Target customers and parents have signed petitions, sent letters, faxes, and made phone calls to Target urging them to phase out PVC.

This report analyzes Target's sale of products containing PVC by focusing on three key areas: baby / children's products and toys, shower curtains, and packaging. These three areas were selected because Target sells many of these products that are made out of PVC. Target customers may be exposed to highly toxic chemicals from using these products in their homes.

We hope you find the information in this report illuminating. We hope Target's shareholders and customers will urge the company to adopt a responsible environmental practice and commit to phasing out PVC in products and packaging.

Sincerely,



Lois Marie Gibbs, Executive Director  
Center for Health, Environment and Justice  
May, 2007

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## *A Critical Assessment of Target's PVC Products & Packaging*

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**The Center for Health, Environment and Justice** was founded in 1981 by Lois Gibbs, the community leader at Love Canal. CHEJ empowers local groups to be active, ongoing, democratic forces working to protect people and the environment from health-threatening contaminants. We provide one-on-one organizing and technical assistance, and coordinate nationwide issue-focused campaigns that strengthen and broaden the movement.

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# Executive Summary

Target Corporation is the sixth largest retailer in the United States with approximately 1,500 stores in 47 states and over \$50 billion in revenues. Target sells many products made out of or packaged in polyvinyl chloride (PVC) plastic, a widely used plastic that has come under intensive scrutiny for its harm to public health and the environment. Target's sale of PVC products and packaging poses significant and avoidable health and environmental hazards, and legal, financial, and reputational risks to the company.

PVC is the most dangerous plastic to our health and environment from production to disposal, releasing poisonous chemicals linked to cancer and birth defects. The manufacture, use, and disposal of these plastic materials releases highly hazardous chemicals including dioxins and furans, vinyl chloride, ethylene dichloride, lead, phthalates, and mercury into our environment. PVC manufacturing plants are often located in low-income communities and communities of color, making the production of PVC a major environmental justice concern for neighboring residents. PVC manufacturing facilities have exposed workers and fenceline neighbors to toxic carcinogens, and caused major air pollution, chemical spills and contaminated drinking water supplies.

## Way Off Target with Toxic Toys

Infants and children chewing on PVC toys and baby products sold at Target may be exposed to phthalates. These dangerous chemicals are linked to premature birth delivery, early puberty in girls, impaired sperm quality and sperm damage in men, genital defects and reduced testosterone production in boys. Target has no publicly stated policy commitment to phase out PVC baby/children's products and toys. Target sells PVC products such as a Baby Einstein discover & play activity gym, Munchkin duck

bathtub, Fisher-Price soft travel tray, Peg Perego prima diner highchair, 5" crib mattress with deluxe vinyl cover, and a 4-sided change pad. The company promotes PVC usage in baby strollers in their online "stroller buying guide," which could expose infants to toxic phthalates. In contrast, Wal-Mart announced plans in 2006 to immediately stop selling all PVC lined children's lunchboxes, yet Target has made no such similar commitment. Over ten years ago, Ikea phased out all PVC toys. On the government level, the European Union and fourteen countries have banned phthalates in children's toys and there is pending legislation in seven U.S. states to ban phthalates; Target has four hundred and thirteen stores in these states.



## Way Off Target with Toxic Shower Curtains

In 2002, researchers at the US EPA reported a PVC shower curtain, "can cause elevated indoor air toxics concentrations...for more than a month." Target customers have repeatedly complained on Target's website about strong chemical odors being released from shower curtains sold at Target. One customer complained, "it stunk up the place so bad, I couldn't sleep the night I hung it up." Target has no publicly stated policy commitments to phase out PVC shower

"More and more studies show that PVC has toxins that can pose long-term health and environmental risks."  
-Wal-Mart



curtains. While Target only offers five shower curtains made out of EVA (a safer PVC-free plastic), they sell at least ten times as many curtains made out of PVC. The EVA shower curtains are equivalent in price or cheaper than 62% of the PVC curtains sold at Target. Ikea stopped selling PVC products including vinyl shower curtains over ten years ago. 79% of Ikea's PVC-free shower curtains are equivalent in price or cheaper than 81% of Target's PVC shower curtains.

## Way Off Target with Unrecyclable Packaging

PVC packaging has a national recycling rate far lower than other plastics. Just .7% of PVC bottles were recycled in 2004, compared to 21.6% for PET plastic bottles and 25.9% for HDPE bottles. One PVC bottle can contaminate and ruin a recycling load of 100,000 recyclable PET bottles. More than two billion pounds per year of short-lived PVC products, such as packaging, are discarded with U.S. household trash. In fact, nondurable products, such as packaging, account for more than 70% of the PVC disposed of in U.S. municipal waste. While Target is a member of the Sustainable Packaging Coalition, the company has no publicly stated policy commitment to phase out PVC packaging. Target sells a number of products packaged in PVC, such as Target sport look styling gel, Luxe bath and body products, Target salon series curling and straightening irons. In 2005, Wal-Mart committed to eliminating all private label PVC packaging in two years, yet Target has not developed a similar policy.

## Target is Way Behind the Competition

Target may be at risk of losing some of its market share as their key competitor, Wal-Mart, has made strides in becoming an environmental leader, including commitments to phase out PVC in packaging, children's lunchboxes, and building materials. According to Wal-Mart, "more and more studies show that PVC has toxins that can pose long-term health and environmental risks". In 2005, Wal-Mart CEO Lee Scott announced a major new sustainability initiative committing

the company to, "replacing PVC packaging for our private brands with alternatives that are more sustainable and recyclable within the next two years." Since then, they have made substantial progress in achieving this goal; meanwhile Target has failed to make a similar commitment.

In 2006 Wal-Mart announced they would immediately stop selling all PVC children's lunchboxes, in response to an FDA order to remove lead from children's lunchboxes. Wal-Mart went beyond the FDA's request and also removed PVC from the lunchboxes; meanwhile Target has failed to make a similar commitment. In 2006, Wal-Mart unveiled a new chemicals policy, restricting the most hazardous chemicals from their products. These included carcinogens, reproductive toxicants, and persistent bioaccumulative toxic (PBT) compounds, chemicals which are used and released during PVC manufacture and disposal.

Other companies phasing out PVC include major retailers like Costco, and companies such as Aveda, Bath and Body Works, Body Shop, Bristol Meyers, Crabtree & Evelyn, Evenflo, First Years, Gerber, H&M, Hewlett Packard, Ikea, Johnson & Johnson, Microsoft, Nike, SC Johnson, Sharp, and Sony.

## How Target Can Get Back on Track

Target needs to develop publicly stated goals to phase out PVC in products and packaging and switch to safer alternatives. As part of these goals, Target should develop an implementation plan with concrete benchmarks. Phasing out PVC is fully in line with Target's environmental initiatives, particularly its green purchasing program, commitment to recycling and the "social, economic and environmental health of the communities we serve," and its efforts to identify "packaging options with fewer environmental impacts and greater recycling potential." By phasing out toxic PVC, Target would help to build public trust, protect brand reputation, and safeguard and grow market share by anticipating further regulation and recall/legal liabilities. Such actions can significantly and positively raise Target's environmental profile, enhance its reputation and competitive position worldwide.

# PVC: the Poison Plastic

## Cancer-Causing Chemicals

Highly hazardous chemicals including dioxins and furans, vinyl chloride, ethylene dichloride, lead, mercury, and phthalates are used or released in the manufacture and disposal of PVC.<sup>1</sup> Vinyl chloride, the key building block of PVC, can cause cancer, increase the risk of a rare form of liver cancer, impact the nervous system, and has been linked to an increased incidence of birth defects. Vinyl chloride is one of the few chemicals the U.S. EPA classifies as a known human carcinogen.<sup>2</sup>

## Harmful to Workers

Studies have documented links between working in PVC facilities and the increased likelihood of developing diseases including angiosarcoma of the liver, a rare form of liver cancer<sup>3</sup>, brain cancer<sup>4</sup>, lung cancer<sup>5</sup>, lymphomas, leukemia, and liver cirrhosis<sup>6</sup>. 81,000 U.S. workers are regularly exposed to vinyl chloride<sup>7</sup>, while 77,000 are exposed to ethylene dichloride.<sup>8</sup> Although workplace exposures in PVC facilities have

been significantly reduced from the levels of the 1960s, there is no threshold below which vinyl chloride monomer does not increase the risk of cancer, so current exposures in the U.S. continue to pose cancer hazards to workers. Further, occupational exposure to VCM remains extremely high in some facilities in Eastern Europe and Asia.<sup>9</sup>

In addition to chronic diseases, workers face deadly hazards from accidents and explosions on the job at PVC manufacturing plants across the United States. In recent years, numerous workers have been killed or seriously injured at PVC facilities. On April 23, 2004, a Formosa Plastics PVC plant in Illinois exploded, sending a plume of toxic smoke for miles around surrounding communities. Five workers were killed, four towns were evacuated, several highways closed, a no-fly zone declared, and three hundred firefighters from twenty-seven surrounding communities battled the flames for three days.<sup>10</sup> The U.S. Chemical Safety Board investigated the explosion and found that the plant owners “were aware of the possibility of serious consequences

In Lake Charles, Louisiana, a jury found one of the United States’ leading PVC manufacturers liable for “wanton and reckless disregard of public safety”, caused by one of the largest chemical spills in the nation’s history which contaminated the groundwater underneath the surrounding community.

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of an inadvertent release of chemicals” and did not act on recommended safeguards as far back as 1992.<sup>11</sup>

## Air and Groundwater Pollution

PVC plants are often located in low-income communities and communities of color, making the production of PVC a major environmental justice concern for neighboring residents. Reveilletown, Louisiana, was once a small African-American town adjacent to a PVC facility owned by Georgia-Gulf. In the 1980s, after a plume of vinyl chloride in groundwater began to seep under homes in the area, Georgia-Gulf agreed to permanently evacuate the entire community of one hundred and six residents. Reveilletown has since been demolished.<sup>12</sup> In Lake Charles, Louisiana, a jury found one of the United States’ leading PVC manufacturers liable for “wanton and reckless disregard of public safety”, caused by one of the largest chemical spills in the nation’s history which contaminated the groundwater underneath the surrounding community.<sup>13</sup> In Pennsylvania, the federal government is working to clean up highly contaminated groundwater and contaminated lagoons at an OxyChem PVC plant.<sup>14</sup> In Texas, vinyl chloride was discovered in wells nearby a Formosa PVC plant, which was forced to spend one million dollars cleaning up the contaminated groundwater.<sup>15</sup>

## Terrorist Risks

A 2002 Rand report for the U.S. Air Force identified chlorine gas storage and transport facilities as among the top chemical targets for a terrorist attack and cited examples of a number of such threats and attacks already carried out around the world.<sup>16</sup> As a prime feedstock for PVC, chlorine makes the PVC manufacturing plants and the trains that supply them highly vulnerable to terrorist attacks. Experts predict that as many as 100,000 Americans could be killed or injured in just 30 minutes as a result of a terrorist attack on railways carrying lethal chlorine. In July, 2004, the Homeland Security Council estimated that an attack on a single chlorine facility could kill 17,500 people, severely injure an additional 10,000 and result in 100,000 hospitalizations and 70,000 evacuations.<sup>17</sup> This is particularly

concerning given the increased use of chlorine bombs in Iraq in recent months. The best security is to switch to safer materials that don’t require chlorine. PVC production is the biggest single use of chlorine and so reduction in its use represents the largest single step we can take to reduce the risk of chlorine disasters, accidental or intentional.

## The Deadly Connection: PVC, Chlorine and Dioxin

PVC is particularly unique from most other plastics because it is chlorine-based, 57% chlorine when pure, making it a major dioxin source during production and especially in disposal.<sup>18</sup> Dioxins are a highly toxic group of chemicals that build up in the food chain, can cause cancer and can harm the immune and reproductive system.<sup>19,20,21</sup> Dioxins are so toxic they’re one of twelve chemicals that have been targeted for a global phase out by an international treaty, the global Stockholm Convention on Persistent Organic Pollutants.<sup>22</sup> Dioxins have also been targeted for phase out in the Great Lakes by a binational advisory body of the United States and Canadian governments charged with protection of the Great Lakes ecosystem. This governmental body has called for a phase-out of all uses of chlorine.<sup>23,24,25,26</sup> PVC is the leading contributor of chlorine to four combustion sources –municipal solid waste incinerators, backyard burn barrels, medical waste incinerators and secondary copper smelters – that account for an estimated 80% of dioxin air emissions.<sup>27</sup>

## No Safe Disposal

More than 100 municipal waste incinerators<sup>28</sup> in the U.S. burn 500<sup>29</sup> to 600<sup>30</sup> million pounds of PVC each year, forming dioxins and releasing toxic additives to the air and ash disposed of on land. An average of 8,400 landfill fires are reported every year in the U.S., contributing further to PVC waste combustion and dioxin pollution.<sup>31</sup>

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# Way off Target with Toxic Toys

## PVC Toys Contain Dangerous Reproductive Toxicants

Infants and children chewing on or playing with PVC toys and baby products may be exposed to significant quantities of phthalates.<sup>32,33</sup> Exposure to these chemicals have been linked with many significant adverse health problems including premature birth delivery<sup>34</sup>, early puberty in girls<sup>35</sup>, impaired sperm quality and sperm damage in men<sup>36,37,38</sup>, genital defects and reduced testosterone production in boys<sup>39,40,41,42,43,44,45,46</sup>. Other additives, such as lead and cadmium, have been documented in children's toys<sup>47</sup> and products such as lunchboxes<sup>48</sup>. Short or long-term exposure to lead can harm young children, babies, and even adults. It can damage the brain and nervous system, cause behavior and learning problems, slowed growth, hearing problems, headaches, difficulties during pregnancy, other reproductive problems, and more.<sup>49</sup>

These risks pose major avoidable legal, financial, regulatory, and reputational liabilities for Target. Target has been sued under California Proposition 65 law for selling PVC lunchboxes and PVC jewelry containing lead.<sup>50</sup>

## Toxic Toys Outlawed

The European Union and fourteen countries have banned the use of phthalates in children's toys.<sup>51</sup> The City of San Francisco recently passed a ban on phthalates in baby toys<sup>52</sup>, and similar legislation has been proposed in MN, CA, NY, MD, MA, OR, and ME. Target has four hundred and thirteen stores in these seven states. Legislation is most likely to pass in California, where Target has over two hundred stores that could be affected.<sup>53</sup> Target has an opportunity to take anticipatory action and incorporate compliance with these environmental health directives by

developing a plan to phase out PVC toys before they are forced to do so by different states.

## Target Has No Publicly Stated Policy on PVC Toys

Target has no publicly stated policy commitments to phase out PVC baby / children's products and toys. In fact, Target promotes PVC usage in baby strollers in their online "stroller buying guide", which could expose infants to





toxic phthalates.<sup>54</sup> In 1998 Target and other retailers reached a voluntary agreement with the U.S. Consumer Product Safety Commission to remove phthalate containing teething rings, rattles, pacifiers and bottle nipples from store shelves; however it is unclear whether or not Target has continued to honor that commitment.<sup>55</sup> Some baby products at Target, such as First Years baby cups, are labeled PVC and phthalate free, yet most other products have no such labeling.<sup>56</sup>

## Toxic Toys Sold in Target Stores

Examples of PVC in baby / children's products and toys sold at Target include a Baby Einstein discover & play activity gym, Munchkin duck bathtub, Fisher-Price soft travel tray, Peg Perego prima diner highchair, 5" crib mattress with deluxe vinyl cover, 4-sided change pad, and the Tiny Love Developlay.<sup>57</sup> For the average consumer, it is extremely difficult to identify PVC usage in children's toys and baby products since they are not labeled. When we contacted Munchkin to determine whether or not their rubber ducky baby bathtub was made out of PVC, Munchkin wrote that the bathtub, "is made of a material called Polyvinyl Chloride and there is no PVC in this product."<sup>58</sup> Responses like these are inaccurate and extremely confusing to consumers and underscore the need for retailers like

Target to take charge of their supply chain and phase out PVC.

Some of the top baby brands sold at Target are Amy Coe, BabyBjorn, Baby Einstein, Badger basket, Bassett Baby, Britax, Chicco, Classic Pooh (Disney), Evenflo, Fisher Price, Gracco, Maclaren, Parents Magazine, Peg Perego, Simplicity, Summer, Tiddliwinks, and Zooper. Some of the top toy brands sold at Target includes Bratz, Chicco, Fisher-Price, Hasbro, Leapfrog, Lego, Little Tikes, Mattel, Melissa & Doug, Playskool, Step2, Lego, and VTech.<sup>59</sup> Already, some of these companies, such as Chicco, Evenflo, and Lego Systems, are committed to phasing out PVC.<sup>60</sup>

## Wal-Mart and Other Companies are Phasing Out PVC

In July, 2006, Wal-Mart announced plans to immediately stop selling all PVC lined children's lunchboxes, yet Target has made no such similar commitment.<sup>61</sup> Over ten years ago, European retailer Ikea phased out all PVC toys and switched to safer plastics such as polypropylene.<sup>62</sup> A number of baby and children's toys manufacturers such as Brio, Chicco, Evenflo, First Years, Gerber, International Playthings, Lamaze Infant Development, Lego Systems, Sassy, and Tiny Love have committed to phase out all PVC toys. Other toy manufacturers such as Discovery Toys and Manhattan Baby have committed to phase out some PVC toys.<sup>63</sup>

## How Target Can Get Back on Track

Target needs to develop publicly stated goals to phase out PVC children's / baby products and toys and switch to safer alternatives. As part of these goals, Target should develop an implementation plan with concrete benchmarks. Safer alternatives to PVC baby / children's products and toys include products made out of biobased materials, polyethylenes, polypropylenes, thermoplastic elastomers, and ethylene vinyl acetate (EVA).<sup>64</sup>



# Way off Target with Vinyl Shower Curtains

## Elevated Levels of Dangerous Chemicals in the Home

That new shower smell may be toxic to Target customers. In 2001, researchers at the US EPA reported that a vinyl shower curtain released 14 different compounds into the air, including methanol, methylene chloride, toluene, and phenol, which are classified as hazardous air pollutants by the 1990 Clean Air Act Amendments.<sup>65</sup> In 2002, the same researchers reported that one new vinyl shower curtain in the bathroom, “can cause elevated indoor air toxics concentrations...for more than a month.” Four air toxics—toluene, methyl isobutyl ketone (MIBK), ethylbenzene, and phenol—were detected.<sup>66</sup> Toluene is listed as a developmental toxin, and ethylbenzene is listed as a carcinogen, under California Proposition 65 law.<sup>67</sup> Another study by the Danish EPA found that vinyl shower curtains contain organotins and high levels of the phthalate DEHP, a dangerous reproductive toxicant.<sup>68</sup>

## Target Has No Policy on PVC Shower Curtains

Target has no publicly stated policy commitments to phase out PVC shower curtains. Target sells many shower curtains out of PVC. Yet, the company also sells shower curtains made out of safer materials such as EVA plastic, polyester, nylon, and cotton.<sup>76</sup>

## Dozens of PVC Shower Curtains Sold at Target

Target sells PVC shower curtains in the Isaac Mizrahi, Target Home, and Contemporary Home

brands. A search on the Target website for “vinyl shower curtain” resulted in fifty seven matches, fifty two PVC curtains and five EVA shower curtains.<sup>77</sup>

While Target only offers five shower curtains made out of EVA, they sell at least ten times as many curtains made out of PVC. This is unfortunate considering EVA shower curtains perform well and are generally cost competitive with PVC shower curtains. Customers have given EVA curtains positive reviews on the Target website, while they have complained about the sickening toxic odors from some PVC shower curtains sold at Target. The EVA shower curtains are equivalent in price or cheaper than 62% of the PVC curtains and are cheaper than 19% of the PVC curtains. The EVA shower curtains are more expensive than 35% of the PVC shower curtains. In addition to PVC and EVA shower curtains, Target also sells shower curtains made out of nylon, polyester, and cotton. These curtains are typically more expensive than most

“When used in a bathroom, the [PVC] shower curtain can cause elevated indoor air toxics concentrations...for more than a month.”  
-U.S. Environmental Protection Agency Study



## Customers Sickened By Target's PVC Shower Curtains

*Target customers have repeatedly complained on Target's website about strong chemical odors being released from Target's Isaac Mizrahi brand shower curtains. The following list is a sample of complaints from Target customers, describing the off-gassing from Isaac Mizrahi and Hello Kitty shower curtains sold at Target.*

"The smell of this curtain was honestly UNDESCRIBABLE! Imagine strong paint, mixed with formaldehyde, bleach, and other pungent chemicals! I still decided to hang it up, but decided to take it down after EVERYONE in the house got nauseous."<sup>69</sup>

"It stunk up the place so bad, I couldn't sleep the night I hung it up."<sup>70</sup>

"I bought this for my 4 year old daughter. It had a horrible plastic smell, so I unfolded it and let it sit outside for 2 DAYS!! I put it up... and my eyes began to tear (not to mention my nose protested against the smell). Even my 4 year old didn't want it! We took it back!"<sup>71</sup>

"I seriously got sick, and my sinuses were swollen for a week."<sup>72</sup>

"On opening it, I was hit with the strongest plasticky [sic] fumes I had ever smelled on a shower curtain...After 48 hours the stench still permeated our apartment & hallways. I had a migraine and felt like I was in a nail salon or embalming room. Handling it made my skin tingle and my eyes water."<sup>73</sup>

"Man, what a stench. Permeated the whole house. I wish it did not stink so bad."<sup>74</sup>

"Don't buy Isaac Mizrahi vinyl shower curtains. You'll regret it believe me. They smell so nasty like plastic or something. It will stink up your place even if it's not even there anymore! It lingers...my eyes are still watering, my upper lip feels swollen and my nostrils are burning and watering."<sup>75</sup>

PVC shower curtains, but are often similar in price to some of the more expensive PVC curtains.<sup>78</sup>

A larger query for "shower curtain" on the Target website reveals five hundred and eighty matches, although not all of these products are actually curtains and most do not appear to be readily available in Target stores. An analysis of these curtains and associated products is outside the scope of this report.<sup>79</sup>

## No PVC Shower Curtains at IKEA for Ten Years

Ikea stopped selling PVC products including vinyl shower curtains over ten years ago and switched from PVC shower curtains to a safer plastic, EVA.<sup>80</sup> They also sell shower curtains out of nylon and polyester. Ikea advertises their EVA shower curtains as a "chlorine-free plastic material, which is an alternative to PVC".<sup>81</sup>

Ikea sells fourteen PVC-free shower curtains. Seven curtains are made out of PEVA plastic, a PVC-free plastic alternative. Five curtains are made out of polyester and two are polyester / cotton blends.<sup>82</sup> All of Ikea's PVC-free shower curtains are cost competitive with Target's PVC shower curtains, and many are even cheaper. Two of the PEVA shower curtains are cheaper than any PVC shower curtain sold at Target, retailing for \$1.49 and \$2.99. 86% of Ikea's PEVA shower curtains are cheaper than 67% of Target's PVC shower curtains. 79% of Ikea's PVC-free shower curtains are equivalent in price or cheaper than 81% of Target's PVC shower curtains.<sup>83</sup>

## How Target Can Get Back on Track

Target needs to develop publicly stated goals to phase out PVC shower curtains and switch to safer alternatives. As part of these goals, Target should develop an implementation plan with concrete benchmarks. Target should continue expand its line of safer PVC-free shower curtains made out of EVA or PEVA plastic, polyester, nylon, and cotton (organic cotton would be preferable).

# Way off Target with Unrecyclable Packaging

## PVC Packaging Contaminates and Ruins Recyclable Plastics

PVC has a national recycling rate far lower than that of other plastic packaging materials commonly used such as PET and HDPE. According to the American Plastics Council, just 0.7% of PVC bottles were recycled in 2004, the most recent year for which data is available. The near lack of PVC recycling for consumer product packaging compares starkly to recycling rates in 2004 of 21.6% for PET plastic bottles and 25.9% for HDPE bottles.<sup>84</sup> According to the Association of Postconsumer Plastics Recyclers, “PVC is a major contaminant to the PET bottle recycling stream.”<sup>85</sup>

Just one PVC bottle can contaminate and ruin a recycling load of 100,000 recyclable PET bottles.<sup>86</sup> Target’s use of PVC packaging not only impacts the recyclability of other plastics, as PVC packaging waste usually ends up in incinerators and landfills releasing toxic chemicals in the air and groundwater. Non-durable goods such as PVC packaging make up 71% of the PVC found in municipal solid waste in the United States, with over one million tons (two billion pounds) disposed of every year.<sup>87</sup>

## PVC Packaging Restricted Around the World

PVC packaging has been banned or restricted in a number of countries around the world, such as Canada, Czech Republic, Spain, and South Korea.<sup>88</sup> There is proposed legislation in California to ban PVC packaging<sup>89</sup>, where Target has two hundred and eleven stores.<sup>90</sup>

## Target Has No Policy on PVC Packaging

Target has no publicly stated policy to phase out PVC packaging. Target sells a number of products packaged in PVC, such as Target sport look styling gel, Luxe bath and body products, Target salon series curling and straightening irons, as well as many other brand name products such as Con Air, Franklin Electronics, Motorola, Nokia, Procter & Gamble, and Texas Instruments products.<sup>91</sup> Many Target products utilize safer PVC-free packaging. Target is a member of the Sustainable Packaging Coalition, whose membership includes a number of companies that are phasing out PVC packaging.<sup>92</sup>



## Wal-Mart Phasing Out PVC Packaging in Two Years

Target is way behind their main competitor, Wal-Mart, in addressing PVC packaging. In October of 2005, Wal-Mart committed to eliminating all private label PVC packaging in two years, yet Target has developed no such policy.<sup>93</sup> More recently Wal-Mart set up a packaging “score-card” grading both private label and brand name suppliers on the sustainability of their packaging.<sup>94</sup> Other companies phasing out PVC packaging include Aveda, Body Shop, Bristol Myers, Boots, Crabtree & Evelyn, Dean Foods, Dell, Estée Lauder, Evian, H&M, Helene Curtis, Hewlett Packard, Ikea, Johnson and Johnson, Kiss My Face, Limited Brands (Victoria’s Secret, bath & Body Works), Marks and Spencer, Microsoft, Nike, Nokia, SC Johnson, Samsung, Sharp, Sony.<sup>95</sup>

## How Target Can Get Back on Track

Target needs to develop publicly stated goals to phase out PVC packaging and switch to safer alternatives. As part of these goals, Target should develop an implementation plan with concrete benchmarks. Safer alternatives to PVC packaging include PLA, PET, HDPE, LDPE, and PP.

Target is way behind their main competitor, Wal-Mart, in addressing PVC packaging. In October of 2005, Wal-Mart committed to eliminating all private label PVC packaging in two years, yet Target has developed no such policy.

# Target is Way Behind the Competition

Target may be at risk of losing some of its market share as their key competitor, Wal-Mart, has developed an ambitious sustainability program and made significant commitments, such as phasing out PVC in key areas. This should be of particular concern to Target as more and more consumers are considering the health and environmental impact of products that they purchase. Wal-Mart has been moving away from PVC because, “more and more studies show that PVC has toxins that can pose long-term health and environmental risks”.<sup>96</sup>

## Wal-Mart Phasing Out PVC Packaging

On October 24, 2005, Wal-Mart CEO Lee Scott announced a major new sustainability initiative that included a focus on PVC packaging. Lee Scott stated the company is committed to, “replacing PVC packaging for our private brands with alternatives that are more sustainable and recyclable within the next two years.”<sup>97</sup> Since then, they have made substantial progress in achieving this goal;<sup>98</sup> meanwhile Target has failed to make a similar commitment. In October 2006, Wal-Mart announced a new packaging scorecard that will grade suppliers on the sustainability of their packaging, and this will likely lead to a reduction in the use of PVC among brand name suppliers.<sup>99</sup>

## Wal-Mart Phased Out PVC Lunchboxes

On July 28, 2006 Wal-Mart announced they would immediately stop selling all PVC children’s lunchboxes, in response to an FDA order to remove lead from children’s lunchboxes. Wal-Mart went above and beyond the FDA’s request

by not only removing lead but also PVC from the lunchboxes; meanwhile Target has failed to make a similar commitment.<sup>100</sup>

## Wal-Mart Develops Chemicals Policy

On October 30, 2006, Wal-Mart unveiled a broad new chemicals policy, restricting the most hazardous chemicals from their consumer products. The chemicals policy embraces the “precautionary principle,” and discusses how the company will evaluate chemicals in products based on the hazards they pose throughout their lifecycle. It, “will immediately focus on chemicals that, with regard to hazard, have been identified as known, likely, or probable human carcinogens (cause cancer), mutagens (damage human or animal genetic material), or reproductive toxicants (damage to a fetus or harm mothers’ or fathers’ ability to reproduce. We will also focus on chemicals that are persistent (slow to break down in the en-



vironment), bioaccumulative (build-up in plants and animals), and toxic (harmful to various species in the environment) and are often referred to as PBTs).” Wal-Mart announced they would begin by banning chemicals from their products that meet these criteria, beginning with a list of twenty chemicals. While this new chemical’s policy did not specifically mention PVC, PVC meets virtually all of the criteria.<sup>101,102,103</sup>

Target may be at risk of losing some of its market share as its key competitor, Wal-Mart, has developed an ambitious sustainability program and made significant commitments, such as phasing out PVC in key areas.

## Building Materials

Wal-Mart recognizes PVC is widely used in building materials, and is now beginning to explore PVC-free materials. Wal-Mart is planning to eliminate all PVC roofing from its new stores and distribution centers<sup>104</sup>, and switching to a safer material, Thermoplastic Poly Olefin (TPO) membrane. This came after Firestone Building Products, Wal-Mart’s supplier, announced Firestone would stop offering PVC roofing product due to health and environmental hazards.<sup>105</sup> Target has explored TPO roofs but surprisingly experienced performance issues with the roofing<sup>106</sup>, which may be due to improper installation and not because of the TPO material, given the experience of Wal-Mart and Firestone. According to the Healthy Building Network, TPO roofing is offered by Firestone with the same service and guarantees, and at a more competitive price and installed cost.<sup>107</sup>

At a new experimental store in Aurora, IL, Wal-Mart has used alternatives to PVC in the flooring, irrigation system, cart bumpers, wire and cable insulation, ceiling tiles, metal and fiberglass trims and cooler doors.<sup>108</sup>

Wal-Mart’s sustainability initiatives around PVC and other issues are to be commended and are a step in the right direction, however they still have significant environmental, human rights, and labor issues that the company should address as part of its sustainability strategy.

## Companies Phasing Out the Poison Plastic

PVC is being reduced and phased out by major retailers, hospitals, building materials companies, electronics, toy, and apparel companies. This includes retailers like Costco and companies like Adidas, Asics, Aveda, Body Shop, Boots, Brio, Bristol Myers, Carnegie Fabrics, Chicco, Consorta, Costco, Crabtree & Evelyn, Dean Foods, Dell, Evenflo, Estée Lauder, Evian, Firestone Building Products, First Years, Gerber, H&M, Helene Curtis, Herman Miller, Hewlett Packard, Honda, Ikea, International Playthings, Johnson & Johnson, Kaiser Permanente, Kiss My Face, Lamaze Infant Development, Lego Systems, Limited Brands (Bath & Body Works, Victoria’s Secret), Marks & Spencer, Microsoft, Milliken, Nike, Nokia, Puma, Samsung, Sassy, SC Johnson, Sharp, Shaw, Sony, Tiny Love, Toyota, Wal-Mart, and Volvo.<sup>109</sup>

# Getting Back on Target

As one of the world's largest retailers, Target has a responsibility to sell safe and healthy products that are not harmful to customers or to the workers and communities where the products and packaging are manufactured and disposed. The following recommended benchmarks outline how Target can responsibly phase out polyvinyl chloride in their products and packaging:

## PVC Packaging

Phase out all private label and brand name PVC packaging within 2 years, beginning with private label packaging.

## PVC Products

Prioritize the phase out of the following private label and brand name PVC products within three years, beginning with the following private label products.

- Baby and children's products and toys (beginning with products

created for toddlers under three and products that can be placed in a toddler or child's mouth).

- Baby care products.
- Shower curtains.
- Food wrap.
- Apparel.
- Tablecloths.
- PVC products containing, lead, cadmium, antimony, organotins, and/or phthalates (DEHP, DINP, DIDP, DBP, DEP).

Phase out all remaining private label PVC products within four years.

Develop a plan to phase out all remaining brand name PVC products within four years.



Connecticut Coalition for Environmental Justice



## Implementing the Phase Out

Within three months of commitment:

- Notify suppliers of the retailer's plan to phase out PVC in products and packaging and require suppliers to disclose the presence of PVC in products and packaging and the specific chemical names of additives used in individual PVC products.
- Develop scorecards for company purchasers identifying products commonly packaged or made out of PVC
- Develop specification language for PVC-free products and packaging for purchasers.

Within one year, communicate intentions to phase out PVC packaging and products to manufacturers of PVC and signal priority categories.

As product contents are identified, label products and packaging as "PVC-Free". When phasing out PVC, show preference for switching to bio-based and other safe materials. Determine the safety of an alternative material by considering its toxicity to living things (carcinogens, endocrine disrupters, mutagens, reproductive toxicants, and developmental toxicants would not be allowed), its persistence in the environment, their contamination of our bodies, and its ability to increase in concentration in food and in people.

If safer alternatives are not yet available for specific products, encourage suppliers and manufacturers to develop safer alternatives, taking into consideration their effectiveness and environmental impacts.



# References

- <sup>1</sup> Schreiber (2003) P. "Affidavit of Judith Schreiber, PhD, Senior Public Health Scientist, New York State Office of the Attorney General, provided to the Supreme Court of the State of New York, In the Matter of the Application of Resilient Floor Covering Institute and Tarkett, Inc, vs. New York State Department of Environmental Conservation." Index Number 6721-02, May 9, 2003.
- <sup>2</sup> U.S. Environmental Protection Agency (2000). "Vinyl Chloride Fact Sheet." US EPA Technology Transfer Network, Air Toxics Website – Vinyl Chloride.
- <sup>3</sup> Creech (1974) J. and M. Johnson. "Angiosarcoma of liver in the manufacture of polyvinyl chloride." *Journal of Occupational Medicine* 16: 150-151.
- <sup>4</sup> Lewis (2002) R. et al. "A Case-Control Study of Angiosarcoma of the Liver and Brain Cancer at a Polymer Production Plant" *Journal of Occupational Medicine* 45:538-45.
- <sup>5</sup> Mastrangelo (2003) G. "Lung Cancer Risk in Workers Exposed to Poly(vinyl chloride) Dust: A Nested Case-Referent Study," *Occupational and Environmental Medicine* 60: 423-28.
- <sup>6</sup> Gennaro (2003) V. et al. "Reanalysis of Mortality in a Petrochemical Plant Producing Vinyl Chloride and Polyvinyl Chloride." *Epidemiol Prev* 27: 221-25.
- <sup>7</sup> Agency for Toxic Substances and Disease Registry (1997). Toxicity Profile for Vinyl Chloride (Update). Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA, September.
- <sup>8</sup> Agency for Toxic Substances and Disease Registry (2001). Toxicological Profile for 1,2-Dichloroethane. U.S. Department of Health and Human Services, Atlanta, GA.
- <sup>9</sup> Thornton (2002) J. Environmental Impacts of Polyvinyl Chloride Building Materials – A Healthy Building Network Report. Healthy Building Network, Washington, DC.
- <sup>10</sup> Steingraber (2005) S. "The Pirates of Illiopolis." *Orion Magazine*. May / June.
- <sup>11</sup> U.S. Chemical Safety Board (2007). "CSB Issues Final Report and Safety Video on Formosa Plastics Explosion in Illinois, Concludes That Company and Previous Owner Did Not Adequately Plan for Consequences of Human Error." Press Release, March 6.
- <sup>12</sup> United Church of Christ Commission for Racial Justice (1998). "From Plantations to Plants: Report of the Emergency National Commission on Environmental and Economic Justice in St. James Parish, Louisiana." Cleveland, OH. September 15.
- <sup>13</sup> Ibid.
- <sup>14</sup> The Alliance for A Clean Environment. "Why Get Involved?" Stowe, PA. Available at <http://www.acereport.org/oxy3.html>.
- <sup>15</sup> Lewis (1999) S. Formosa Plastics – A Briefing Paper on Waste, Safety and Financial Issues Including U.S. Campaign Finance Abuses. Waverly, MA.
- <sup>16</sup> Karasik (2002). T. Toxic Warfare. Rand Corp, Santa Monica, CA.
- <sup>17</sup> Hind (2005) R. "Inherently Safer Technologies Can Eliminate Catastrophic Risks – High Volume Substances & High Hazard Facilities Should be Prioritized." Testimony of Rick Hind, Legislative Director, Greenpeace Toxics Campaign, Greenpeace, Before the House Subcommittee on Economic Security, Infrastructure Protection and Cybersecurity of the House Homeland Security Committee. June 29.
- <sup>18</sup> Vinyl Institute (2004) "Vinyl – the Material." Fact sheet prepared by the Vinyl Institute. Available at <http://www.vinylinfo.org/material/vinyl/material.html>.
- <sup>19</sup> U.S. Department of Health and Human Services (2002) Public Health Services, National Toxicology Program, Report on Carcinogens, Tenth Edition. December 2002.
- <sup>20</sup> World Health Organization (1997) International Agency for Research on Cancer Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 69 Polychlorinated Dibenzo-para-Dioxins and Polychlorinated Dibenzofurans. Lyon, France. February.
- <sup>21</sup> Birnbaum (2003) L. and W. Farland. "Health Risk Characterization of Dioxins and Related Compounds." in *Dioxins and Health*, Second Edition, Edited by Arnold Schechter and Thomas Gasiewicz, John Wiley and Sons, Hoboken, NJ.
- <sup>22</sup> United Nations Environment Programme (2000). Final Report: UNEP/POPS/INC.4/5—Report of the Intergovernmental Negotiating Committee for an International Legally Binding Instrument for Implementing International Action on Certain Persistent Organic Pollutants on the Work of its Fourth Session, Bonn, 20–25 March, Geneva.
- <sup>23</sup> International Joint Commission (1993). "A Strategy for Virtual Elimination of Persistent Toxic Substances, Volume 1."
- <sup>24</sup> International Joint Commission (1993). "A Strategy for Virtual Elimination of Persistent Toxic Substances, Volume 2."
- <sup>25</sup> International Joint Commission (1992). "Sixth Biennial Report on Great Lakes Water Quality".
- <sup>26</sup> International Joint Commission (1994). "Seventh Biennial Report on Great Lakes Water Quality".
- <sup>27</sup> U.S. Environmental Protection Agency (1998) Inventory of Sources of Dioxins in the United States. Review Draft. EPA/600P-98/002Aa. April 1998.
- <sup>28</sup> Lester (2004) S., Belliveau, M. PVC Bad News Comes in 3's Center for Health, Environment & Justice, and Environmental Health Strategy Center. Falls Church, VA.
- <sup>29</sup> Kaufman (2004) S.M., N. Goldstein, K. Millrath and N.J. Themelis. "The State of Garbage in America: 14th Annual Nationwide Survey of Solid Waste Management in the United States." A Joint Study with the Earth Engineering Center of Columbia University, BioCycle: 31-41, January.
- <sup>30</sup> U.S. Environmental Protection Agency (2003) Municipal Solid Waste in the United States: 2001 Facts and Figures. USEPA Office of Solid Waste and Emergency Response (5305W), EPA530-R-03-011, October.
- <sup>31</sup> Federal Emergency Management Agency (2002) Landfill Fires: Their Magnitude, Characteristics, and Mitigation. United States Fire Administration, May.
- <sup>32</sup> National Toxicology Program Center for the Evaluation of Risks to Human Reproduction (2000). NTP- CERHR Expert Panel Report on Di(2-ethylhexyl)phthalate. Washington, DC: U.S. Department of Health and Human Services.
- <sup>33</sup> National Toxicology Program Center for the Evaluation of Risks to Human Reproduction (2000). NTP-CERHR Expert Panel Report on Di-isononylphthalate. Washington, DC: U.S. Department of Health and Human Services.
- <sup>34</sup> Latini (2003) G., et al. "In-Utero Exposure to Di-(2-ethylhexyl)-phthalate and Human Pregnancy Duration," *Environmental Health Perspectives*. 111:1783-1785.
- <sup>35</sup> Colón (2000) I., C. Caro, CJ Bourdony and O Rosario, "Identification of Phthalate Esters in the Serum of Young Puerto Rican Girls with Premature Breast Development." *Environmental Health Perspectives*. 108: 895-900.
- <sup>36</sup> Duty (2003) SM., MJ Silva, DB Barr, JW Brock, L Ryan, Z Chen, RF Herrick, DC Christiani and R Hauser. "Phthalate Exposure and Human Semen Parameters." *Epidemiology*. 14:269–277.
- <sup>37</sup> Duty (2003) SM., NP Singh, MJ Silva, DB Barr, JW Brock, L Ryan, RF Herrick, DC Christiani and R Hauser. "The relationship between environmental exposures to phthalates and DNA damage in human sperm using the neutral comet assay." *Environmental Health Perspectives*. 111:1164-1169.
- <sup>38</sup> Rozati (2002) R., PP Reddy, P Reddanna and R Mujtaba. "Role of environmental estrogens in the deterioration of male factor fertility." *Fertility and Sterility*. 78:1187-1194.
- <sup>39</sup> Swan (2005) S., Katharina M. Main, Fan Liu, Sara L. Stewart, Robin L. Kruse, Antonia M. Calafat, Catherine S. Mao, J. Bruce Redmon, Christine L. Ternand, Shannon Sullivan, J. Lynn Teague, and the Study for Future Families Research Team. "Decrease in Anogenital Distance among Male Infants with Prenatal Phthalate Exposure." *Environmental Health Perspectives*. 113: 1056-1061.
- <sup>40</sup> Fisher (2004) J. "Environmental Anti-Androgens and Male Reproductive Health: Focus on Phthalates and Testicular Dysgenesis Syndrome." *Reproduction*. 127: 305-315.
- <sup>41</sup> Main (2005) K., Gerda K. Mortensen, Marko M. Kaleva, Kirsten A. Boisen, Ida N. Damgaard, Marla Chellakooty, Ida M. Schmidt, Anne-Maarit Suomi, Helena E. Virtanen, Jørgen H. Petersen, Anna-Maria Andersson, Jorma Toppari, and Niels E. Skakkebaek. "Human Breast Milk Contamination with Phthalates and Alterations of Endogenous Reproductive Hormones in Three Months Old Infants." *Environmental Health Perspectives*. doi:10.1289/ehp.8075
- <sup>42</sup> Gray (1999) LE., C Wolf, C Lambright, P Mann, M Price, RL Cooper and J Ostby. "Administration of potentially antiandrogenic pesticides (procymidone, linuron, iprodione, chlozolinate, p,p'-DDE, and ketoconazole) and toxic substances (dibutyl- and diethylhexyl phthalate, PCB 169, and ethane dimethane sulphonate)

during sexual differentiation produces diverse profiles of reproductive malformations in the male rat.” *Toxicology and Industrial Health*. 15:94-118.

<sup>43</sup> Gray (2000) L.E., et al. “Perinatal Exposure to the Phthalates DEHP, BBP, and DINP, but not DEP, DMP, or DOTP, Alters Sexual Differentiation of the Male Rat.” *Toxicological Science*. 58: 350-365.

<sup>44</sup> Parks (2000) L., et al. “The Plasticizer Diethylhexyl Phthalate Induces Malformations by Decreasing Fetal Testosterone Synthesis during Sexual Differentiation in the Male Rat.” *Toxicological Sciences* 58, 339-349.

<sup>45</sup> Wilson (2004) V., et al. “Phthalate Ester-Induced Gubernacular Lesions are Associated with Reduced Insl3 Gene Expression in the Fetal Rat Testis.” *Toxicology Letters*. 146: 207-215.

<sup>46</sup> Fisher (2003) J.S., et al. “Human ‘Testicular Dysgenesis Syndrome’: A Possible Model Using in-utero Exposure of the Rat to Dibutyl Phthalate.” *Human Reproduction*. 18: 1383-1394.

<sup>47</sup> Di Gangi (1997) J. Lead and Cadmium in Vinyl Children’s Products. Greenpeace USA, Washington, DC, October.

<sup>48</sup> Wal-Mart Stores, Inc (2006). “Wal-Mart Statement on Soft Vinyl Lunchboxes.” Press Release. Bentonville, AR. July 28.

<sup>49</sup> U.S. Environmental Protection Agency. “Lead in paint, Dust, and Soil – Basic Information.” Available at <http://www.epa.gov/lead/pubs/leadinfo.htm%23facts>.

<sup>50</sup> Engelman (2007) A. Personal communication with Alexa Engelman, Center for Environmental Health. Oakland, CA. April 4.

<sup>51</sup> Environment California (2006). “Phthalates Overview.” Los Angeles, CA. Available at <http://www.environmentalcalifornia.org/environmental-health/stop-toxic-toys/phthalates-overview>.

<sup>52</sup> San Francisco Ordinance no. 120-06 (2006).

<sup>53</sup> Target (2007). “Target.com Store Locator.” Accessed April 4, 2007.

<sup>54</sup> Target (2007). “Target.com stroller buying guide.” Available at [http://sites.target.com/site/en/spot/page.jsp?title=baby\\_strollers\\_guide](http://sites.target.com/site/en/spot/page.jsp?title=baby_strollers_guide). Accessed April 4, 2007.

<sup>55</sup> U.S. Consumer Product Safety Commission (1998). “CPSC Releases Study on Phthalates in Teethers, Rattles and other Children’s Products.” Office of Information and Public Affairs. Washington, DC. Press Release. December 2.

<sup>56</sup> Schade (2006) M. Review of children’s toys and baby products at Target store in Brooklyn, NY. January 8.

<sup>57</sup> Schade (2007) M. Review of children’s toys and baby products at Target.com. April 4.

<sup>58</sup> Muchkin (2006) E-mail from Munchkin Customer Service to Lois Gibbs. September 7.

<sup>59</sup> Schade (2007) M. Review of children’s toys and baby products at Target.com. April 4.

<sup>60</sup> Greenpeace (2003). “2003 Toy Report Card.” Washington, D.C. May 29.

<sup>61</sup> Wal-Mart (2006). “Wal-Mart Statement on Soft Vinyl Lunchboxes.” Press Release. Bentonville, AR. July 28.

<sup>62</sup> Ikea (2006). Personal communication with Björn Fritiof, Ikea. Sweden.

<sup>63</sup> Greenpeace (2003). “2003 Toy Report Card.” Washington, D.C. May 29.

<sup>64</sup> Ticker (1999) J. A Review of the Availability of Plastic Substitutes for Soft PVC in Toys. Department of Work Environment, University of Massachusetts at Lowell. Report Commissioned by Greenpeace International. February.

<sup>65</sup> U.S. Environmental Protection Agency (2001). “Identification of hazardous air pollutants emitted from a shower curtain.” Inside IAQ – EPA’s Indoor Air Quality Research Update. Spring/Summer.

<sup>66</sup> Chang (2002) JCS., et al. “Air Toxics Emissions from a Vinyl Shower Curtain,” *Proceedings: Indoor Air*. 2002, pp. 542-47.

<sup>67</sup> State of California Environmental Protection Agency (2006). “Chemicals known to the state to cause cancer or reproductive toxicity.” Office of Environmental Health Hazard Assessment. December 8.

<sup>68</sup> Danish Environmental Protection Agency (2001). “Phthalates and organic tin compounds in PVC products.” August 16. Available at <http://glwww.mst.dk/chemi/01080100.htm>.

<sup>69</sup> Ria (2007). Complaint on Target.com website about Hello Kitty Mod Shopper Vinyl Shower Curtain. April 2.

<sup>70</sup> Longhorn Lady (2006). Complaint on Target.com website about Isaac Mizrahi Photoreal Tulips Shower Curtain. Austin, TX. May 9.

<sup>71</sup> Smart Shopper “Andi B.” (2006). Complaint on Target.com website about Hello Kitty Mod Shopper Vinyl Shower Curtain. Baltimore, MD. December 13.

<sup>72</sup> StacySoto “Stacy S” (2007). Complaint on Target.com website about Hello Kitty Mod Shopper Vinyl Shower Curtain. Orlando, FL. January 15.

<sup>73</sup> Design Freak Elise (2006). Complaint on Target.com website about Isaac Mizrahi Photoreal Tulips Shower Curtain. MI. February 28.

<sup>74</sup> Sam Parson “sp” (2006). Complaint on Target.com website about Isaac Mizrahi Photoreal Tulips Shower Curtain. Austin, TX. March 18.

<sup>75</sup> Complaint on Target.com website about Isaac Mizrahi Photoreal Tulips Shower Curtain. Accessed at [http://www.target.com/gp/detail.html/ref=cm\\_reviews\\_dp\\_](http://www.target.com/gp/detail.html/ref=cm_reviews_dp_)

[seemore/602-0972681-8915047?%5Fencoding=UTF8&coliid=&frombrowse=1&alt%5Fview=custReviews&asin=B0008DV60C#R3JF2FDBWJLRVB](http://www.target.com/gp/detail.html/ref=cm_reviews_dp_) in 2006.

<sup>76</sup> Schade (2007) M. Review of shower curtains sold at Target.com. April 4.

<sup>77</sup> Ibid.

<sup>78</sup> Ibid.

<sup>79</sup> Ibid.

<sup>80</sup> Ikea (2006). Personal communication with Björn Fritiof, Ikea. Sweden.

<sup>81</sup> Ikea (2007). Description of Bibbi Decibel PEVA shower curtain on Ikea.com. April 4.

<sup>82</sup> Schade (2007) M. Review of shower curtains sold on Ikea.com. April 4.

<sup>83</sup> Schade (2007) M. Comparison of prices for Target and Ikea shower curtains sold on Target.com and Ikea.com. April 4.

<sup>84</sup> American Plastics Council (2005). 2004 National Post-Consumer Plastics Recycling Report. Arlington, VA.

<sup>85</sup> Beck (1999) R. W. Final Report: PVC Cost Survey Associated of Postconsumer Plastics Recyclers.

<sup>86</sup> Anderson (2004) P. Message in a Bottle: The Impacts of PVC on Plastics Recycling. A Report to the GrassRoots Recycling Network from Recycle Worlds Consulting, June.

<sup>87</sup> U.S. Environmental Protection Agency (2003) Municipal Solid Waste in the United States: 2001 Facts and Figures. USEPA Office of Solid Waste and Emergency Response (5305W), EPA530-R-03-011, October.

<sup>88</sup> Greenpeace International (2003). PVC-Free Future: A Review of Restrictions and PVC free Policies Worldwide. 9th edition. Amsterdam, the Netherlands.

<sup>89</sup> Heal the Bay (2007). “California Senate Committee Passes Key Legislation to Protect the Ocean.” Santa Monica, CA. Available at [http://www.healthebay.org/news/2007/03\\_29\\_plastics-SB898-SB899/default.asp](http://www.healthebay.org/news/2007/03_29_plastics-SB898-SB899/default.asp).

<sup>90</sup> Target (2007). Target (2007). “Target.com Store Locator.” Accessed April 4, 2007.

<sup>91</sup> Schade (2007) M. Review of PVC packaging at Target store in Brooklyn, NY. January 23.

<sup>92</sup> Sustainable Packaging coalition (2007). “List of Current Members.” Available at [http://www.sustainablepackaging.org/current\\_members.asp](http://www.sustainablepackaging.org/current_members.asp). Accessed April 4, 2007.

<sup>93</sup> Wal-Mart (2005). “Twenty First Century Leadership.” Presented by Lee Scott. October 24.

<sup>94</sup> Wal-Mart (2006). “Wal-Mart Launches 5-Year Plan to Reduce Packaging.” Press Release. September 22.

<sup>95</sup> Center for Health, Environment and Justice (2007). “PVC Company Policies.” Available at <http://www.besafenet.com/pvc/companyolicies.htm>.

<sup>96</sup> Wal-Mart Stores Inc. (2007) “Wal-Mart Experimental Store Aurora Press Kit.” Available at <http://www.walmartfacts.com>.

<sup>97</sup> Wal-Mart (2005). “Twenty First Century Leadership.” Presented by Lee Scott. October 24.

<sup>98</sup> Wal-Mart (2006) Personal communication with Amy Zetlemoyer, Matt Kistler, and Rob Eldridge.

<sup>99</sup> Wal-Mart (2006). “Wal-Mart Launches 5-Year Plan to Reduce Packaging.” Press Release. September 22.

<sup>100</sup> Wal-Mart (2006). “Wal-Mart Statement on Soft Vinyl Lunchboxes.” Press Release. Bentonville, AR. July 28.

<sup>101</sup> Wal-Mart (2006). Wal-Mart Stores, Inc. launches innovative program to inspire use of preferred substances in chemical intensive products. October 30.

<sup>102</sup> Wal-Mart (2006). “Priority Chemicals Fact Sheet.” October 30.

<sup>103</sup> Wal-Mart (2006). “Preferred Principles Fact Sheet.” October 30.

<sup>104</sup> Maryland Moves (2006). “Wal-Mart Goes Green.” The Baltimore Metropolitan Council for the Baltimore Regional Transportation Board. September.

<sup>105</sup> Healthy Building News (2005). “2005 in review: the year PVC phase-out went mainstream.” Healthy Building Network. December 21.

<sup>106</sup> Target (2007). Corporate Responsibility Report. March 28.

<sup>107</sup> Healthy Building News (2005). “2005 in review: the year PVC phase-out went mainstream.” Healthy Building Network. December 21.

<sup>108</sup> Wal-Mart Stores Inc. (2007) “Wal-Mart Experimental Store Aurora Press Kit.” Available at <http://www.walmartfacts.com>.

<sup>109</sup> Greenpeace International (2003). PVC-Free Future: A Review of Restrictions and PVC free Policies Worldwide. 9th edition. Amsterdam, the Netherlands.

# Help Target Get Back on Track!

## If You are a Shareholder:

### **Write Target CEO:**

Target's continued use of PVC poses major legal, financial, and reputational risks to the company, which could impact shareholder value. (Contact CHEJ for more information about these liabilities.) Please consider sending a letter to the Target CEO to ask the company to establish an environmentally responsible PVC phase-out policy. (See address below.)

## If You are a Customer:

### **1. Write or Call Target.**

Contact Target's CEO and let him know PVC plastic is out of style and encourage the company to develop a timeline to phase out PVC. Also, let your Target store manager know you're concerned about this issue and encourage them to contact their regional manager and corporate headquarters.

**Take action today! Send Target a free letter at <http://www.pvcfree.org>**

**CALL:** 1-800-591-3869

### **WRITE:**

Bob Ulrich, CEO  
Target Corporation  
1000 Nicollet Mall  
Minneapolis, MN 55403

### **2. Watch a hilarious 3 minute video and learn more.**

Watch the funny animated spoof video about dangerous chemicals in our homes, *Sam Suds and the Case of PVC, the Poison Plastic*, online at <http://www.pvcfree.org>

### **3. Spread the word.**

Tell your friends and family about PVC's impact on our health and environment, and encourage them to contact Target and watch the new spoof video. Make copies of this fact sheet and pass them on.

### **4. Purchase safer PVC-free products.**

Use your consumer power to help shift the market away from PVC products. Check out our website of resources on safe alternatives to PVC at <http://www.besafenet.com/pvc/safe.htm>

Avoid products made out of PVC which are labeled "vinyl." Look for the number "3" inside or the letter "V" underneath the recycling symbol to identify products packaged in PVC.