Pass Up the Poison Plastic

The PVC-Free Guide for Your Family & Home

November 2008

Center for Health, Environment and Justice

CHEJ
www.chej.org

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About the Center for Health, Environment and Justice

CHEJ mentors a movement building healthier communities by empowering people to prevent harm through programs focusing on different types of environmental health threats. CHEJ works with communities to empower groups by providing the tools, direction, and encouragment they need to advocate for human health, to prevent harm and to work towards enironmental integrity. Following her successful effort to pervent further harm for families living in contaminated Love Canal, Lois Gibbs founded CHEJ to continue the journey. CHEJ has assisted over 10,000 groups nationwide.

The release of this guide is sponsored by the **Center for Health, Environment and Justice's PVC Campaign**.

CHEJ's PVC Campaign is coordinated by the **BE SAFE Campaign of the Center for Health, Environment and Justice**. CHEJ greatly appreciates the support of the Beldon Fund, CS Fund, the John Merck Fund, the Kendeda Fund, Marisla Foundation, New York Community Trust, Park Foundation, Patagonia, and the Robert Sterling Clark Foundation for its work to promote precaution and prevention.

The authors of this guide wish to gratefully acknowledge all those who contributed by defining its scope, providing information, and reviewing the report drafts. Without them, it would not have been such a comprehensive, grounded, or useful tool.

The conclusions and recommendations in this report are those of the authors and do not necessarily reflect the views of the funders or reviewers. The authors retain full responsibility for the content of the report.

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Introduction

The Center for Health, Environment and Justice (CHEJ) has created this new guide to empower you to make smarter, healthier shopping choices for your family, home and environment.

We're faced with a seemingly infinite number of choices when shopping for products, yet often have little information about the toxic chemicals used to manufacture them. We have the right to know what chemicals are in the products we are purchasing and if chemicals pose health risks for our families, the workers and communities where they're manufactured and disposed in.

Corporations need to take action to phase out highly toxic chemicals that poison workers and communities from production to disposal. They have a fundamental responsibility to ensure chemicals and products are not harmful to their workers, neighbors, and global environment. As consumers, we also need to take personal responsibility for the health and environmental impacts of the products we purchase – and think more holistically about their lifecycle. The health and well-being of communities where products are manufactured and dumped impact our collective quality of life. Moreover, with finite resources available, many people are asking themselves the hard question of whether or not we really need all of these products that clutter our lives.

Polyvinyl chloride (PVC or vinyl) is the worst plastic for our health and environment, releasing dangerous chemicals that can cause cancer from manufacture to disposal. PVC products often contain dangerous toxic additives such as phthalates and lead, which can leach out and pose dangers to consumers. The vast majority of PVC manufactured is used in the production of building materials, however it's also used

in many other consumer products such as children's toys, shower curtains, office supplies and packaging (see the *Common Household Products and Packaging That May Contain PVC section*).

The **Center for Health, Environment, and Justice** put together **Pass Up the Poison Plastic** to empower you to find safer solutions to polyvinyl chloride, the poison plastic. The guide lists the most common consumer products made out of PVC and safer PVC-free alternatives.

A growing number of companies have committed to phase PVC out of their products and have vowed to create safer and healthier alternatives for their customers. Visit CHEJ's PVC Campaign website to learn about these initiatives: www.besafenet.com/pvc

Safer and cost-effective alternatives are already available for virtually every PVC product on the market (see the *Quick Tips for Avoiding PVC, the Poison Plastic and PVC-Free Products and Suppliers* sections). Alternative products can be made from safer plastics, sustainable bio-based materials, and most importantly organic materials instead of hazardous PVC. For a listing of common plastics that typically replace PVC, see *Appendix A: Cheat Sheet to Common Plastic Acronyms* for a listing of these plastics and their acronyms.

You can help build consumer consciousness and demand for safer, healthier products by purchasing PVC-free products. By doing so, we can all help to phase out PVC and promote safer substitutes.

Top Ten Reasons to Buy PVC-Free Products

Polyvinyl chloride (PVC) plastic poses serious environmental and health threats at all stages of its lifecycle: from manufacturing to use to disposal (Thornton 2002). Here are the top ten reasons consumers should look for PVC-free products. To learn more, consult the *Learn More! Websites, Books and Other Resources* section.

1. The Production of PVC Involves Cancer-Causing Chemicals

PVC products are made from toxic chemicals. Three chemicals are at the core of PVC production: chlorine gas is converted into ethylene dichloride (EDC), which is then converted into vinyl chloride monomer (VCM), which is then converted into PVC (Thornton 2002). Both VCM and EDC are extremely hazardous. Vinyl chloride, the key building block of PVC, causes a rare form of liver cancer, and damages the liver and central nervous system (Kielhorn 2000). Vinyl chloride is one of the few chemicals the U.S. EPA classifies as a *known human carcinogen* (ATSDR 2006). EDC is a probable human carcinogen that also affects the central nervous system and damages the liver (USEPA 2007).

2. PVC Leads to Dioxin Formation

The formation of dioxin is a major concern in PVC's lifecycle. When PVC is manufactured or burned as a waste material, or accidentally in landfill fires, building and motor vehicle fires, numerous dioxins are formed and released into the air or water. The term 'dioxin' refers to a family of chemicals that are unintentionally made. They are generated as by-products during production and disposal of chlorinated compounds including PVC. Dioxins are a highly toxic group of chemicals that build up in the food chain, cause cancer and can harm the immune and reproductive systems (USDHHS 2002, WHO 1997, Birnbaum and Farland 2003). Dioxins have been targeted for global phase out by the Stockholm Convention on Persistent Organic Pollutants (UNEP 2000). Dioxins have also been targeted for virtual elimination in the Great Lakes through the U.S. and Canadian Great Lakes Binational Toxics Strategy (USEPA 2006).

3. PVC is Harmful to Workers

Studies have documented links between working in PVC facilities and the increased likelihood of developing diseases including angiosarcoma, a rare form of liver cancer (Creech 1974), brain cancer (Lewis 2002), lung and liver cancer (Mastrangelo 2003, Gennaro 2003), lymphomas, leukemia, and liver cirrhosis (Gennaro 2003). Workplace exposures in PVC facilities have been significantly reduced from the levels of the 1960s, however there is no threshold below which vinyl chloride monomer (VCM), a major constituent in

PVC production, does not increase the risk of cancer. Thus, current exposures in the U.S. continue to pose cancer hazards to workers. Furthermore, occupational exposure to VCM remains extremely high in some facilities in Eastern Europe and Asia (Thornton 2002). There is also evidence of increased risk of developing cancer for workers exposed to dioxins in PVC plants (Steenland 2004, Hardell 2003). In addition to chronic diseases, PVC workers face deadly hazards from accidents and explosions on the job at PVC manufacturing plants (Steingraber 2005, USCSB 2007).

4. PVC Pollutes the Air and Groundwater of Surrounding Communities

PVC chemical plants are often located in or near low-income neighborhoods and communities of color, such as Mossville, Louisiana, making the production of PVC a major environmental justice concern. Reveilletown, Louisiana was once a small African-American town adjacent to a PVC facility owned by Georgia-Gulf. In the 1980s, after a groundwater toxic plume of vinyl chloride began to seep under homes, Georgia-Gulf agreed to permanently evacuate the entire community of one hundred and six residents (UCC CRJ 1998). In Pottstown, Pennsylvania, chemical waste dumped in lagoons at the OxyChem PVC plant contaminated groundwater and is now targeted for cleanup under the federal Superfund program (ACE 2008). In Point Comfort, Texas, vinyl chloride was discovered in wells near a Formosa PVC chemical plant, and the company had to spend one million dollars cleaning up contaminated groundwater (Lewis 1999).

5. PVC: Second Largest User of Mercury Globally

Mercury is used to produce chlorine gas. In China and Russia, mercury is also used to make vinyl chloride monomer, the basic building block of PVC (NRDC 2006). This use accounts for an astonishing 20% of global mercury consumption (700 tons), the second largest sector globally (Bailey 2007). Mercury is a potent neurological

and reproductive toxin that accumulates primarily as methyl mercury in aquatic food chains (NAS 2000). The PVC industry's use of mercury has been increasing in recent years despite the fact that the dangers of mercury are well-known. In 2002, the Chinese PVC industry used 354 tons of mercury (NRDC 2006). Within two years, that had increased to 610 tons of mercury, growing at an annual rate of 31.4%. It's been estimated that mercury usage will continue to increase to over 1,000 tons by 2010 (NRDC 2006). Assuming PVC accounts for 40% of the

global chlorine production, between chlorine and vinyl chloride monomer production, the PVC industry currently accounts for 27.2% of the world's mercury consumption, the second largest user of mercury in the entire world (Bailey 2007, Thornton 2002).

6. PVC Production Sites a Target for Terrorists

A 2002 Rand report for the U.S. Air Force identified the transport and storage of chlorine gas as among the top chemical targets for a terrorist attack and cited examples of threats and attacks already carried out around the world (Karasik 2002). As a prime feedstock for PVC, chlorine makes the PVC industry and the trains that deliver the chlorine highly vulnerable to terrorist attacks. The U.S. Naval Research Laboratory estimated 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 (Hind 2005). The *Washington Post* reported that a classified study conducted by the U.S. Army Surgeon General dated October 29, 2001, found that a terrorist attack resulting in a chemical release in a densely populated area could injure or kill as many as 2.4 million people (Pianin 2002). The best security would be to switch to safer materials that don't require chlorine. Since PVC production is the largest single use of chlorine (ATSDR 2007), reducing its use represents the most important step we can take to reduce the risk of accidental or intentional chlorine disasters.

7. PVC Products Contain and Leach Toxic Additives

PVC products often contain toxic additives such as phthalates, lead and cadmium (Thornton 2002, OECD 2004). Many of these additives are not chemically bound to the plastic and can migrate out of the product posing potential hazards to consumers (Thornton 2002). In some cases, these additives can be released from the product into the air inside your home (CARB 1999, Rudel 2000, Uhde 2001). Some phthalates have been linked to reproductive problems including shorter pregnancy duration (Latini 2003), premature breast development in girls (Colon 2000), sperm damage (Duty 2003), and impaired reproductive development in males (Swan 2005). Certain phthalates have now been banned in children's toys in the United States effective February 2009 (Layton 2008). Lead has been used to stabilize and is found in many different PVC products (Thornton 2002).

8. Burning PVC Leads to Dioxin Formation

A major concern about PVC is the formation of dioxins whenever it is burned. This is due to the relationship between PVC, chlorine, and dioxin. PVC is a significant source of the chlorine necessary for dioxin formation during the combustion of municipal and household waste in incinerators, burn barrels, landfills, an estimated one million building and motor vehicle fires (Versar 1996) and open dumps. The strongest evidence of dioxin formation

during combustion comes from laboratory studies showing that PVC content in the waste stream fed to incinerators is linked to elevated levels of dioxins in stack air emissions (Costner 2001, USEPA 2006a)[1] and in residual incinerator ash (Theisen 1991, Wilken 1994). Dioxins also form when PVC products and materials are burned in accidental building and vehicle fires (USEPA 2006a, IAFF 1995, TNO 1996).

9. Discarding PVC in Landfills Poses Risks

The land disposal of PVC product waste, especially flexible materials, also poses environmental and public health risks. As flexible PVC degrades in a landfill, toxic additives leach out of the waste

into groundwater, which is especially problematic for unlined landfills (CEC 2000, Mersiowski 1999, ARGUS 2000, AEA 2000). These additives also contribute to the formation of landfill gases (ARGUS 2000), which are formed in municipal waste landfills (ATSDR 2001, USEPA 1995). In addition, there are over 8,400 landfill fires reported every year in the U.S. (FEMA 2002). These fires burn PVC waste and contribute to dioxin formation (USEPA 2006a). Land disposal is the final fate of between 2 and 4 billion pounds of PVC that are discarded every year at some 1,800 municipal waste landfills in the U.S. (Kaufman 2004).

10. PVC Contaminates and Ruins Recyclable Plastics

PVC packaging has a national recycling rate far lower than other plastics. Just 0.7% of PVC bottles were recycled in 2006, compared to 23.5% for PET plastic bottles and 26.4% for HDPE bottles (ACC 2007). According to the Association of Postconsumer Plastics Recyclers, "*PVC is a major contaminant to the PET bottle recycling stream*." (Beck 1999). One PVC bottle can contaminate and ruin a recycling load of 100,000 recyclable PET bottles (Anderson 2004), if the PVC cannot be separated from the PET. This is because PET and PVC behave very differently when they are processed for recycling. PVC burns at a lower temperature than PET. It burns at the temperature that simply melts PET (Anderson 2004, EAF 1993). When this occurs, "black spots" get into the PET resin contaminating the batch and ruining or seriously downgrading the quality of recycled PET residue (Anderson 2004).

[1]Numerous studies are discussed in detail in Lester and Belliveau 2004.

Quick Tips for Avoiding PVC, the Poison Plastic

To rid your home of PVC, we've compiled these quick tips for avoiding PVC in common consumer and household products. These tips are by no means exhaustive or complete, but will help you embark down the road towards safer PVC-free products. See the *PVC-Free Products and Suppliers* section for a listing of companies that manufacture or sell PVC-free products.

In general, we recommend looking for non-plastic products whenever available. When choosing plastic items, be sure to not only avoid PVC but also polycarbonate (PC), polystyrene (PS) and acrylonitrile butadiene styrene (ABS) plastics (see the *It's Not Just PVC – Other Toxic Plastics to Avoid* section).

Clothing / Accessories

• Look for PVC-free materials in rainwear, prints on clothing, and accessories (such as handbags and belts).
• In purchasing accessories like purses and jewelry, look for fabrics and other materials rather than plastics. Choices include jacquards, velvets, crinkled crepes, satins, wood, metals, pearls, rhinestones, etc.
• Be cautious of products usually made of or coated with PVC, which can include various items such as bibs, hats, bags, raingear, and shoes.
• Avoid jewelry with plastic cords, dull metallic components, or white fake pearls, which can contain lead.

Children's Products and Toys

• Look for toys and infant products labeled PVC, phthalate, and lead-free.

How to Identify PVC, the Poison Plastic

In order to avoid PVC products, consumers need to know how to identify PVC products and how to find safer alternatives.

PVC products are often labeled with the words "vinyl" on the packaging, such as vinyl 3-ring binders. PVC packaging can be identified by looking for the number "3" inside, or the letters "V" or "PVC" underneath, the universal recycling symbol, indicating the product is made out of PVC. *Just remember – bad news comes in threes, don't buy PVC.*

For some products, it is not easy to determine whether they contain PVC because it's not properly labeled. If you're uncertain, contact the manufacturer or retailer and ask what type of plastic their product is made of. You have a right to know.

CHEJ does not endorse any of these products, manufacturers or retailers, nor provide any warranty of the appropriateness of listed products.

• Look for toys made with materials like organic cotton and sustainably harvested wood.
• Choose PVC-free pacifiers and teethers. Silicone pacifiers are available; many companies have stopped using PVC for teethers.
• Avoid modeling clays made of PVC (polymer clays such as Fimo and Sculpey). Look for clays made without PVC, or make your own (recipes are available online such as at http://www.theholidayzone.com/recipes/dough.html).
• Consult online resources such as http://www.healthytoys.org, http://www.thesoftlanding.com/ and http://www.zrecommends.com/

Christmas Trees

• Almost all fake Christmas trees are made with PVC. Purchase vintage aluminum trees, or real, locally grown and sustainably harvested organic trees. You can also purchase a live tree in a pot, which can later be planted outside.

Credit Cards

• Credit cards are often made of PVC but PVC-free cards are available. Just ask your bank.

Electronics

• Avoid electronics manufacturers who have not committed to phasing out PVC and other toxic chemicals in their production (consult the latest edition of Greenpeace's Greener Electronics Guide).
• Buy electronics from companies who have pledged to responsibly "take it back" at the end of its useful life.

Five Easy Steps to Begin Going PVC-Free in Your Home

1. When remodeling your home, use PVC-free building materials.

2. Buy PVC-free baby products and toys for your children, grandchildren, and relatives.

3. Replace your PVC shower curtain.

4. Shop for PVC-free electronics.

5. Don't buy products that are packaged in PVC. Just remember: *bad news comes in threes, don't buy PVC.*

Food Wrap

• When buying food wrap, choose butcher paper, waxed paper, parchment paper, low density polyethylene (LDPE) or cellulose bags.
• Ask the manager of your grocery store to stock PVC-free food wrap for meats and cheeses in the deli.

Halloween Costumes

• Shop for PVC-free costumes and costumes that are made from materials like cotton. Try to avoid costumes with shiny prints that often contain PVC.
• Make your own Halloween costumes instead

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of buying them. Go to local thrift stores to find clothes to make into costumes.

Home Repair & Construction Materials

Flooring & Carpeting

• Avoid vinyl flooring; choose Forest Stewardship Council (FSC) certified wood, ceramic tiles, bamboo, cork, or linoleum instead.
• Watch out for PVC in carpet padding and backing.

Piping

• Avoid PVC piping, especially for pipes carrying drinking water; choose safer alternatives like HDPE (high density polyethylene), iron, steel, concrete vitrified clay, and copper.

Roofing Membranes

• Look for PVC-free roofing made out of thermoplastic polyolefin (TPO), ethylene propylene diene monomer (EPDM), nitrile butadiene polymer (NBP) and low-slope metal roofing.

Siding

• Purchase fiber-cement board, stucco, recycled, reclaimed or FSC certified wood, oriented strand board (OSB), brick, or polypropylene (PP) siding.

Shutters

• Choose shutters made of wood, aluminum, or PVC-free plastic.

Wall Coverings

• Instead of vinyl wallpaper, choose paint, paper-based wallpaper, or wood paneling.

Windows and Doors

• Purchase wood, metal, or fiberglass windows instead of vinyl.
• Instead of vinyl roller shades, choose metal or wood blinds.
• Window treatments/drapes can be made of fabric, wood, bamboo, or many other materials.

Lunchboxes

• Use cloth lunch bags or metal lunchboxes rather than plastic lunch boxes, many of which are made of PVC.

Mattresses, Couches, and Padded Chairs

• Avoid products such as inflatable furniture, PVC-coated fabrics, and vinyl furniture covers.
• Choose furniture made from solid wood (FSC certified), metal, and glass.

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Office and School Supplies

• Avoid backpacks with shiny plastic designs that often contain PVC and may contain lead.
• Look for backpacks like the original fabric models.
• Stick to the plain metal paperclips, as colored paper clips are coated with PVC.
• Most 3-ring binders are vinyl; look for cardboard, fabric-covered, or polypropylene binders.

Outdoor Products

• When shopping for non-vinyl garden hoses, look for those labeled "drinking-water safe." Hoses with this label are PVC-free.
• Avoid plastic outdoor furniture, but if desired, look for recycled PE types. Otherwise, opt for metals and FSC-certified woods.

Packaging

• Avoid the three-arrow "recycling" symbol with the number 3 and/or the initials PVC; indicating it's made with PVC. If neither symbol is present, call the manufacturer's question/comment line (usually a toll-free 800 number) listed on the package to find out what it's made of.
• Avoid products packaged in unlabeled plastics, such as clamshells and blister packs, which are often PVC.
• Choose products with packaging made from more easily recycled materials like paper (look for those with higher post-consumer recycled

Environmental and Social Issues to Consider at the Checkout Aisle

While shopping for PVC-free products is very important, we also need to include other health, environmental and social considerations in our purchasing decisions, such as:

• Toxic chemicals;
• Energy use/efficiency;
• Country of origin – buy local;
• Recyclability;
• Organic ingredients;
• Sustainable bio-based ingredients;
• Sustainably harvested;
• Sweatshops/child labor/human rights;
• Wages for workers – is the company union? Can workers organize and bargain collectively?;
• Can this product be reused?;
• Will the manufacturer take it back at the end of its useful life?; and/or
• Do you really need this product? Can you borrow, rent or buy it second hand?

These are just a few important ones.

It's critical that we begin thinking more holistically about the health, social, and environmental impacts of the products we buy on a day-to-day basis.

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content), glass, and metal.
• Avoid single-use disposable packaging whenever possible.

Shower Curtains

• Choose curtains and liners made of cotton (organic is preferable), polyester, polyethylene vinyl acetate (PEVA), ethylene vinyl acetate (EVA) or nylon.

Utensils and Dishware

• Use stainless steel utensils; if you require disposable dinnerware, look for bio-based (i.e. made with polylactic acid (PLA) or polyhydroxyalkanoates (PHA) plastics) cutlery and plates.
• Never microwave with cling wrap or plastic containers; use glass, stoneware, or ceramic dishware and containers instead. Heating plastic increases the chances of chemical additives leaching into food and beverages.
• Choose drinking containers made of glass or stainless steel; or if plastic is necessary, be sure to avoid PVC, polystyrene (PS), and polycarbonate (PC) plastics.

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PVC-Free Products and Suppliers

To help you find PVC-free products, we've compiled this spreadsheet of companies that offer PVC-free products.

This listing is intended to provide a representative sampling of products and materials that do not contain PVC. It is not intended to list every single PVC-free product or manufacturer, but should help you embark down the road towards safer PVC-free products.

A number of these companies also sell products made out of PVC, so be sure to purchase the PVC-free ones indicated herein.

This guide was released in November 2008 and changes to the products listed may have occurred since publication.

Companies – Want to Be in the Guide?

We may publish an updated version of this guide over time, so please send us information about your company's PVC-free products if you'd like to be listed in future additions.

To be considered, please e-mail mike@chej.org with the subject "PVC-free guide".

Product Category	Product	Manufacturer or Retailer	Comments	More Information
Apparel and Accessories	**Aprons and Smocks**	Bumkins	Waterproof art smock	www.bumkins.com
		Ecowise	Waterproof super art smock	www.ecowise.com
	Belts	Rawganique	Fabric, hemp, leather, nylon, jute, polyester, PU, sisal	www.rawganique.com
	Clothing	Asics	All Asics products (clothes, footwear, accessories) in the US are PVC-free. Organic cotton, PET, recycled polyester, etc.	www.asicsamerica.com
		Bamboosa	Bamboo, cotton, recycled terrycloth	www.bamboosa.com
		E3 Earthware	Bulk t-shirts and screen printing. Organic cotton, U.S.-made t-shirts with non-PVC printing	www.e3earthwear.com
		Earth Speaks Organic Fashion	Hemp, muslin, hemp/silk blends, water-based inks	www.earthspeaks.com

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Product Category	Product	Manufacturer or Retailer	Comments	More Information
Apparel & Accessories	Clothing	Eco-Wise	Organic cotton, hemp	www.ecowise.com
		H&M	All H&M clothing is PVC-free	www.hm.com
		LifeWork	T-shirts and screen printing. Organic cotton t-shirts, screen printing with water-based and plastisol-free inks	www.lifeworkllc.com
		L.L. Bean	Organic cotton	www.llbean.com
		Maggie's Functional Organics	Organic cotton, hemp and wool, with water-based inks. Note - a few pairs of closeout gloves contain PVC, but otherwise the company is PVC-free	www.organicclothes.com
		Natural Collection	Hemp, linen, vegetable dyes, wool	www.naturalcollection.com
		Patagonia	Organic cotton, recycled materials such as soda bottles	www.patagonia.com
		Rawganique	Organic cotton, hemp, recycled materials	www.rawganique.com
	Footwear	Asics	All Asics products (clothes, footwear, accessories) in the US are PVC-free. Bamboo, canvas, EVA, leather, rubber, etc.	www.asicsamerica.com
		Birkenstocks	Uppers: Birko-flor material (acrylic and PA), leather, wool; foot bed: cork, leather, jute; soles: EVA, PU	www.birkenstocks.com
		Crocs	Croslite resin (EVA), some with rubber sole. Note - many Croc knock-offs, like the Kamik Doodle, are made of PVC	www.crocs.com
		Ecolution	Hemp, plant-based dyes, recycled tires	www.ecolution.com
		Puma	Uppers: canvas, mesh, PU, suede; outsole: EVA, rubber	www.puma.com
		Splaff Sandals	Hemp, recycled rubber from tires	www.splaff.com
	Glasses	H&M	Nose pads on glasses: silicone	www.hm.com

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Product Category	Product	Manufacturer or Retailer	Comments	More Information
Apparel & Accessories	**Halloween Costumes**	Harrison's Halloween	Baby costumes. 100% cotton	www.harrisonshalloween.com
	Halloween Costumes	Nova Natural Toys and Crafts	Silk	www.novanatural.com
	Raincoats	H&M	EVA, nylon, PE, polyester, PP, PU	www.hm.com
		I Play Baby Wear	Children's raincoats. Waterproof fabric	www.iplaybabywear.com
		Land's End	Kid's Solid Rain Slicker, Men's / Women's Microfiber Rain Jacket, Women's Aquacheck Jacket. Microfiber, nylon	www.landsend.com
		L.L.Bean	Waterproof TEK2.5 nylon	www.llbean.com
		Patagonia	Nylon with waterproof/ breathable barrier and water repellent finish, recycled polyester	www.patagonia.com
		REI	Cascade Rain Jacket - Kids', Cascade Rain Jacket - Toddlers'	www.rei.com
		Trek Bikes	Rain jacket.	www.trekbikes.com
	Rainpants	L.L.Bean	Waterproof TEK2.5 nylon	www.llbean.com
		Patagonia	Nylon with waterproof/ breathable barrier and durable water repellent finish	www.patagonia.com
Baby and Children's Products	**Baby Bibs**	BabyBjörn	PVC-free material	www.babybjorn.com
		Bumkins	Phthalate-free waterproof material	www.bumkins.com
		Crocodile Creek	Cotton coated with TPU	www.crocodilecreek.com
		I Play Baby Wear	Bamboo, knit fabric, terry cloth, waterproof material	www.iplaybabywear.com
		Juvenile Solutions	All of their products are PVC, phthalate and PVC free	www.juvenilesolutions.com
		Kiddopotamus	Bibbity Rinse and Roll bibs. Phthalate, latex-free material	www.kiddopotamus.com
		Let Babies Soar!	The Crumb Chum. Polyester	www.letbabiessoar.com

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Product Category	Product	Manufacturer or Retailer	Comments	More Information
Baby and Children's Products	**Baby Bibs**	The Soft Landing	All products are PVC, phthalates and BPA-free	www.thesoftlanding.com
	Baby Clothing	Eco-Wise	Organic materials	www.ecowise.com
		Maggie's Functional Organics	Organic cotton, hemp, and wool with water-based inks	www.organicclothes.com
		Pondür	Organic cotton, low-impact dyes and water-based inks	www.pondur.com
		Under the Nile	Organic cotton	www.underthenile.com
	Bath Toys	Ezue Mini Ducks	Rubber	www.ezue.net
		Juvenile Solutions	Baby Cocoon Bath Seat, Thermobaby Daphne Infant Bath Seat, Thermobaby Plastic Bathtub, Peli's Play Pouch Bath Toy Organizer, Digital Dolphin Thermometer	www.juvenilesolutions.com
		Rich Frog	Rubber Duckies and Squeaky Frogs, Terry cloth toys, sponges and bath mitts	www.richfrog.com
		Sassy	Aquatic Bobbers, Count 'n Spell Bath Appliques, Bath Wigglers, Stack up Critter Cups, Bath Links, Squirting Sea Creatures, Squishy Squirt Pals, Counting Fish 'n Net, Double Duckies, Fishing Links, Hook Line and Sinkers, Bloom and Groom Garden Set, Twist and Turn Trio, Tubby Tumblers	www.sassybaby.com
		Spielstabil	Stacking Cups, Transparent Bucket with Geometrical Sands Molds, Transparent Bucket with Small boats, Beaker Set, San Toys	www.spielstabil.com
		The Soft Landing	All products are PVC, phthalates and BPA-free	www.thesoftlanding.com
	Crib Mattress	Absolutely Organic Baby	Various models of organic cotton	www.absolutelyorganicbaby.com
		IKEA	Sultan Blunda. Polyurethane foam, cotton, polyester	www.ikea.com

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Product Category	Product	Manufacturer or Retailer	Comments	More Information
Baby and Children's Products	**Crib Mattress**	Naturepedic	Organic cotton, doesn't contain brominated flame retardants	www.naturepedic.com
	Diapers	Bumkins	Bamboo or cotton	www.babyworks.com
	Diaper Bags	BabyBjörn	PVC-free material	www.target.com
		Bumkins	Phthalate-free material	www.bumkins.com
		Diaper Dude	Polyester. Note - faux patent leather bag contains PVC	www.diaperdude.com
		Eco-Wise	PET fabric, teflon-free	www.ecowise.com
		Fleurville	Escape Pod and Mothership. PU laminate	www.fleurville.com
	Diaper Covers	Biobottoms	Organic cotton blends, nylon, wool	www. nanasnaturaldiapers. com
		Bumkins	Cotton, waterproof fabric shell (phthalate-free)	www.bumkins.com
		Diaperaps	Organic cotton blends, nylon, wool	www.diaperaps.com
	Labels	Kid Labels	Polypropylene and polyethylene	www.kidlabels.com
		Slick It	Digital image transfer	www.slickerz.com
	Pacifiers	Born Free	All are PVC, phthalate and BPA-free	www.newbornfree.com
		Evenflo	Mimi Soft Touch, Mimi Premium, Mimi Neo One-Piece, Vizion, Fuzion and Illuzion (these pacifiers were redesigned to be BPA free during the Summer of 2008, so be careful to choose only the new pacifiers labeled as BPA free)	www.evenflo.com
		Gerber	NUK Classic, NUK Original, NUK Nautical	www.gerber.com
		Natursutten	Natural Rubber Pacifiers	www.thesoftlanding. com
		Nurture Pure	Silicone Pacifier	www.nurturepure.com

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Baby and Children's Products	**Pacifiers**	Playtex	Binky Most Like Mother Latex Pacifier, Binky Most Like Mother Silicone Pacifier, Binky Angled Pacifier, Binky One-piece Pacifier, Ortho-Pro Pacifier	www.playtex.com
		The First Years	Soothies Silicone Pacifiers (including the Soothie Teething Pacifier), Safe Comfort, Ultra Kip, Disney Pacifier and Attacher, as well as the Soothie Pacifier Attachers (the Bee / Honey Pot Clip, Flower with Petal Clip and Penguin / Igloo Clip)	www.learningcurve.com
		Vice Versa	Binky w/ Case	www.thesoftlanding.com
	Potties	BabyBjörn	Phthalate-free plastic	www.babybjorn.com
		Eco Baby	PE, wood	www.ecobaby.com
	Strollers	Britax	Vigour stroller/travel system. Aluminum, denier fabrics	www.kbtoys.com
		Orbit Baby	Orbit Green Edition made with organic cotton and natural wood; all rain shields to be made of EVA as of summer 2008. All products to be PVC-free, except small internal parts, as of summer 2008	www.orbitbaby.com
	Stroller Covers	Kiddopotamus	Mesh	www.babyproofingplus.com
		Orbit Baby	Weather pack (rain shield and mosquito net). EVA, mesh	www.orbitbaby.com
		Plum Tot	GO Blankie	www.plumtot.com
	Teethers	Bright Starts	Chill and Teeth Tubes, Licensed to Drool, Rattle and Spin teethers	www.brightstarts.com
		Combi	All teethers (4 month, 6 month and 8 month)	www.combistrollers.com
		Gerber	Cooling Gum Soother, Cool Fish Soother, Cool Ring Soother, OrbiTeether	www.gerber.com
		Green Baby Co.	Plastic, water	www.greenbabyco.com

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Baby and Children's Products	**Pacifiers**	Je je	Vibrating teethers	www.jejeteether.com
		Nuby	Icy Bite Teether Rings, Jiggle Giggle Cool Bite Vibrating Teethers (cow and butterfly), Jiggle Giggle Vibrating Teethers (assorted animal shapes), Nibbler, Kool Soothers, Pur Icy Bite Teethers (triangle shape), Nuby Ice Gel Teether Keys on a Ring, Fun Teethers (assorted animal shapes) Nuby Bug-A-Loop Teether, Fun Links and Fun Links on a Ring	www.babybungalow.com
		RaZbaby	RaZ-Berry Teether, Raz-A-Dazzle Silicone Toothbrush	www.thesoftlanding.com
		Sassy	Jelly Fish Teethers, Coolin' Teethers, Chilly Dilly Daisy, Gentle Vibes Leapfrog Lilypad, Buzz n' Bites, Sassy Teething Feeder, Teach Me Toothbrush Set, Teething Tunes, Gummy Guppy, Earth Brites Natural Wooden Toys	www.sassybaby.com
		Vulli	Sophie the Giraffe, Soft Toy Chan Pie Gnon Teethers, Cool It Soother Chan Pie Gnon, Vanilla Flavored Chan Pie Gnon, Musical Fruit Keys, Rattle Key Chain Chan Pie Gnon. Rubber, non-toxic paint	www.zoeborganic.com
		Z Recommends	All teethers are PVC, phthalate and BPA-free	www.zrecsguide.com
	Toys	Evenflo	Most Evenflo products are PVC-free except high chairs, gates, and playards, which have PVC	www.evenflo.com
		Fine Wooden Toys	Online retailer of wooden toys, blocks and puzzles from various manufacturers	www.finewoodentoys.com
		Gerber	Gerber has not made PVC toys since 1998	www.gerber.com

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Baby and Children's Products	**Toys**	Green Toys	Recycled HDPE	www.greentoys.com
		HABA	Maple and beech wood with water-based paints. Also use fabric, felt, leather, cardboard and glass	www.haba.de
		Healthy Toys	Visit http://healthytoys.org/product.least.php for a listing of toys without detected chemicals (I.e. chlorine indicating PVC) of concern.	www.healthytoys.org
		Holgate Toys	Various woods	www.holgatetoy.com
		IKEA	All IKEA toys are PVC-free	www.ikea.com
		LEGO	Most LEGO products are made out of ABS plastic which still poses lifecycle hazards, though is preferable to PVC	www.lego.com
		North Star Toys	Walnut, oak, alder and other words	www.northstartoys.com
		Nova Natural Toys and Crafts	PVC-free toys, though Fagus wooden vehicles and #3625 05 stroller have plastic wheels with unknown plastic material	www.novanatural.com
		Nuno Organic	Various woods	www.nunoorganic.com
		Oompa Toys	Online retailer of wooden toys	www.oompa.com
		Peapods	Various woods	www.peapods.com
		Plan Toys	Rubberwood with water-based dyes, soy and water-based inks	www.plantoys.com
		Sassy	Visit http://www.squidoo.com/safersassybabyproducts for a listing of PVC-free Sassy products. Not all Sassy products are PVC-free	www.sassybaby.com
		Spielstabil	All toys are PVC, phthalates and BPA-free	www.spielstabil.com
		The Soft Landing	All products are free of PVC, phthalates and BPA	www.thesoftlanding.com
		Tree Blocks	Apple, cherry, hazelnut, and elder trees	www.treeblocks.com

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Product Category	Product	Manufacturer or Retailer	Comments	More Information
Baby and Children's Products	**Toys**	Z Recommends	Has information on many PVC, phthalate and BPA-free toys	www.zrecommends.com
Bathroom Products	**Bathmats**	IKEA	All styles. Cotton, PP, rubber	www.ikea.com
		Vivaterra	Hinoki Bath Mat. Japanese cypress	www.vivaterra.com
	Shower Curtains and Liners	A Happy Planet	Hemp	www.ahappyplanet.com
		Bed Bath & Beyond	Various designs and materials such as Palm Tree (EVA), Andre Stripe (polyester and nylon), Ice Circles (PEVA). Note - they also sell PVC shower curtains.	www.bedbathstore.com
		Eco Bathroom	Organic cotton, cotton/linen	www.ecobathroom.com
		Eco-Wise	Organic cotton, hemp	www.ecowise.com
		Gaiam	Linen	www.gaiam.com
		GreenFeet	Cotton	www.greenfeet.com
		Green Home	Organic cotton, hemp	www.greenhome.com
		Ikea	Various designs and materials such as Ethel Rund Orange (PEVA), Nackten (PEVA), and Saxan (PEVA)	www.ikea.com
		JCPenney	Various designs and materials such as Chris Madden (linen/rayon), Home Collection Mosaic Fish (EVA), Home Collection Fabric liner (polyester), and Croscill Classics Aruba (cotton). Note - they also sell PVC shower curtains	www.jcpenney.com
		Kmart	Various designs and materials such as Martha Stewart Everyday Seersucker Plaid (cotton), Martha Stewart Everyday Beech Leaves (EVA). Note - they also sell PVC shower curtains	www.kmart.com

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Bathroom Products	**Shower Curtains and Liners**	Macy's	Various designs and materials such as Style & Co. Gears (cotton) and Style & Co. Ombre Petals (EVA / polyethylene). Note - they also sell PVC shower curtains	www.macys.com
		Pristine Planet	Organic cotton, hemp	www.pristineplanet.com
		Rawganique	Organic hemp	www.rawganique.com
		Sears	Various designs and materials such as Swhole Home Sweet William (cotton), Whole Home Cubitz Clear (EVA). Note - they also sell PVC shower curtains	www.sears.com
		Target	Various designs and materials such as Home EVA Shower Liner, Casual Home stripe (cotton), Contemporary Home Contemporary Blocks (EVA/PE). Note - they also sell PVC shower curtains	www.target.com
		Wal-Mart	Various designs and materials such as Home Trends White Sea Shell (EVA), Mainstays Durham Plaid (Cotton), and Mainstays Home Shower Curtain Liner (EVA). Note - they also sell PVC shower curtains	www.walmart.com
Bedding	**Mattresses**	A Happy Planet	Organic cotton or wool, some with rubber core (no flame retardants)	www.ahappyplanet.com
		The Green Sleep Collection	Organic cotton, rubber, wool	www.greenfusion-designcenter.com
		Vivètique	The Natural Bedroom Collection. Organic cotton , latex, and wool	www.greenfusion-designcenter.com
	Mattress Liners and Covers	A Happy Planet	100% certified organic cotton, untreated and unpainted	www.ahappyplanet.com
		Bed, Bath & Beyond	Allergy relief full zippered mattress encasing . Cotton/ polyester with PU coating	www. bedbathandbeyond.com

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Bedding	**Mattress Liners and Covers**	IKEA	Nattglim. Cotton/polyester with PU coating	www.ikea.com
	Mattress Pads	Ecobab	Organic cotton and organic wool	www.ecobaby.com
		Exclusively Ours	100% PU foam	www. bedbathandbeyond.com
		IKEA	Sultan Torsmo, Sultan Tuvebo. Cotton/polyester blends, PU foam	www.ikea.com
Billboards and Banners	**Billboards and Banners**	Eco Banner	Polyethylene	www.ecobanner.com
		Eco-Flexx	Polyethylene	www.eco-flexx.com
Building Materials	**Carpeting**	Beaulieu	All 3 brands are CRI Green Label certified. Nylon face carpeting with backing made of recycled glass, latex, recycled PET, PP, and/or urethane cushioning	www.beaulieucommer-cial.com
		Construction Specialties	Composite rubber or bitumen backing	www.c-sgroup.com
		Fortune Contract	Polyurethane laminate and foam backing using soy-based polyols, with recycled content	www.fortunecarpet.com
		Lees	Nylon face carpeting with EVA, PET, PU, PVB and rubber coating	www.leescarpet.com
		Milliken	Milliken is 100 PVC-free. Nylon face carpeting with PU backing	www.millikencarpet. com
		Mohawk	Nylon face carpeting with PET, EVA, PU, PVB and rubber coating	www.mohawkind.com
		Nature's Carpet	100% wool with latex backing	www.environmental-homecenter.com
		Shaw	Shaw is 100% PVC-free. Nylon face carpeting polyolefin backing. EcoWorx carpet tile also available; contains 40% recycled materials	www.shawcontract.com

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Building Materials		Tandus	C&A Floor coverings with Tandus "Ethos" backing (this is the only PVC-free option from Tandus). Nylon face carpeting with TPE cushioning/PVB backing made from recycled car windshields	www.tandus.com
	Decking	Bedford Technology	Select Plastic Lumber. HDPE, LDPE 100% recycled plastic lumber	www.plasticboards.com
		Millenium Lumber	HDPE, LDPE 100% recycled plastic lumber	www.bjmindustries.com
		PlasTEAK	HDPE 100% recycled plastic lumber	www.plasteak.com
		The Plastic Lumber Company	Leisure Deck. HDPE 80-95% recycled plastic lumber	www.plasticlumber.com
	Fencing	Grange Fencing	FSC certified wood	www.grange-fencing.com
		Master Halco	Iron, wood, and chain-link fences	www.masterhalco.com
	Flooring	Allstate Rubber	Frei Floor. Also named Lifeline. Calcium carbonate, thermoplastic polymer, titanium dioxide and additional pigments, acrylic polymer ionomer wear layer. Au Natural - Plantation grown virgin rubber	www.allstaterubber.com
		Amtico Company	Stratica. Chlorine-free Surlyn; backing is mineral filled ethylene copolymer; no plasticizers; low-VOC adhesive	www.amtico.com
		Architectural Flooring Systems	Envirofloor. Rubber	www.4afs.com
		Armstrong	Marmorette, Linorette, Colorette, Uni Walton, and Granette brands. Natural linoleum (linseed oil, wood powder and pigments)	www.armstrong.com

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Building Materials	**Flooring**	Ceres Natural Flooring	WELS sheet flooring - polyurethane. Sequoia Plank. Also named LifeLine LT. Calcium carbonate, thermoplastic polymer (2-propenoic acid, 2-methylpolymer with ethene, zinc, salt), titanium dioxide and additional pigments, with acrylic polymer ionomer wear layer	www.ceresnaturalfloors.com
		Forbo	Marmoleum Linoleum. Linseed oil and rosin binder, mixed with limestone and woodflour, pressed on a jute backing. Note - this company also makes PVC flooring	www.forboflooringna.com
		Integra Floors	Ceramic tiles, cork, linoleum, marble, rubber, stone, terrazzos, wood. Note - this company also makes PVC flooring	www.integrafloors.com.au
		Johnsonite	Linoleum (linseed oil, wood and cork flour, limestone and rubber) and rubber flooring. Note - this company also makes PVC flooring	www.johnsonite.com
		Mohawk	Ceramic tile, hardwood, laminate. Note - this company also makes PVC flooring	www.mohawkind.com
		Shaw	Ceramic tile, hardwood, laminate (melamine and wood fiber)	www.shawfloors.com
		UpoFloor	Natural minerals and thermoplastic polymers	www.lifelinefloors.com
	Pipe	Aluminum	Various manufacturers. Used in conduit and ducting piping	

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Building Materials	*Note - this section is organized by piping material*	Cast Iron	Various manufacturers including AB&I Foundry, AB&I Service Center, Charlotte Pipe & Foundry, Tyler Coupling, Tyler Pipe, and Tyler Pipe Service Center. Consult website for contact information. Used in agriculture and drainage piping	www.cispi.org
		Concrete	Various manufacturers - consult website for full listing. Used in water, sewer, agriculture and drainage piping	www.concrete-pipe.org
		Copper	Various manufacturers including Ansonia Copper & Brass, Brush Wellman, Cambridge-Lee Industries, Cerro Flow Products, CMC Howell Metal, Elkhart Products Corporation, Freeport-McMoRan Copper & Gold, Heatcraft, KobeWieland Copper Products, the Linderme Tube Company, Luvata, Mueller Industries, National Coppor Products, National Copper & Smelting, NVent, and Precision Tube. Consult website for contact information. Used in water, drawing, waste and vent piping	www.copper.org
		Ductile iron	Various manufacturers including American Cast Iron Pipe Company, Atlantic States Cast Iron Pipe Company, Canada Pipe Company, CLOW Water Systems Company, Griffin Pipe Products, McWane Cast Iron Pipe Company, Pacific States Cast Iron Pipe Company, and United States Pipe and Foundry Company. Used in water piping	www.dipra.org

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Building Materials	**Pipe** *Note - this section is organized by piping material*	HDPE	Various manufacturers including ADS, Agents Private International, Arnco, Blue Diamond Industries, Chevron Phillips Chemical Company, Endot Industries, Ferguson, Hancor, High Country Fusion Company, ISCO Industries, Lamson & Sessions, Oxford Plastics, Polypipe, Vanguard Piping Systems, Wis. Plastic Drain Tile. Used in water, sewer, conduit and draining, and agriculture and drainage piping	www.plasticpipe.org
		PEX	Various manufacturers including IPEX, Rehau, Upanor / Wirsbo, Vanguard, Viega, Weil-McLain, and Zurn. Used in water and drain, waste and vent piping	www.pexinfo.com
		Steel	Various manufacturers - consult website for comprehensive listing by region. Used in conduit and ducting piping	www.ncspa.org
	Roof	Carlisle SynTec	TPO and EPDM	www.carlisle-syntec.com
		Firestone Building Products	TPO and EPDM	www.firestonebpco.com
		John Mansville	TPO and EPDM. Note - they also sell PVC roofing	www.jm.com
	Siding	Alcoa Mastic	Various aluminum siding styles Note - this company also sells PVC siding	www.mastic.com
		Brick	Various manufacturers and distributors listed on website	www.gobrick.com
		Forest Stewardship Council (FSC) Certified Wood *(not a company, but a sustainable wood certification program)*	Various manufacturers such as Almquist Lumber, CedarPro, Menominee Tribal Enterprises, and Windfall Lumber	www.fscus.org
		James Hardie	Hardie Board. Fiber-cement	www.jameshardie.com

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Building Materials	**Siding**	Louisiana Pacific	SmartSide. Various woods and styles	www.lpcorp.com
		Nailite	RoughSawn Cedar, Hand-Splite Shake, Cedar Prize EZ, Cape Cod Perfection EZ, Perfection Plus Cedar, Scalloped Perfection, Hand-Laid brick, Hand-Cut Stone. Polypropylene	www. nailiteinternational.com
		Paragon Plastic Sheet	HDPE	www. paragonplasticsheet.com
		Stucco	Various manufacturers such as Arcusstone Products, BMI Products, California Stucco Products Corp., Eagle Building Materials, Expo Stucco Products, E-Z Haul Ready Mix, Imasco Minerals, Magna-Wall Stucco Systems, Merlex Stucco, Mission Stucco, Omega Products, Parex Lahabra, Sacramento Stucco, Shamrock Stucco, Somar Industries, Squires Belt, Stonewall of Nevada, Stucco Supply, and Valley Stucco	www.stuccomfgassoc. com/
		The Collins Companies	TruWood Siding. FSC certified version available	www.collinswood.com
	Wall Coverings	EnviroTek Wall System	GreenGuard certified	www.envirotek.com
		Len-Tex Wall Coverings	Various materials including polyethylene. Note - some of their products contain PVC	www.lentexcorp.com
		Xorel	Polyethylene. All of their products are PVC-free	www.xorel.com
	Windows and Doors	Anderson Windows	Wood. FSC certified models available. Note - PVC is used in some of their products	www.andersonwindows. com
		JELD WEN	Wood and wood clad. Note - JELD WEN also sells PVC windows	www.jeld-wen.com

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Building Materials	**Windows and Doors**	Milgard Windows	Wood, fiberglass, and aluminum windows. Note - Milgard also sells PVC windows	www.milgard.com
		Pella	Wood. Note - Pella also sells PVC windows	www.pella.com
		Weathershield Windows	Wood	www.weathershield.com
Electronics	**Cell Phones**	Apple	iphone 3g. The newest version isn't 100% PVC-free but does have increased PVC-free components such as the handset, headphones, and USB cable	www.apple.com
		Nokia	All new Nokia products are PVC-free	www.nokia.com
		Sony Ericsson:	All new Sony Ericsson products are PVC-free	www.sonyericsson.com
	Computer Monitors	Lenovo	Think Vision L2440x Wide	www.lenovo.com
	Laptops	Apple	The new Macbook and Macbook Pro released in October '08 *are not 100% PVC-free, but they have reduced the use of PVC.*	www.apple.com
		Sony	The Viao laptop *isn't 100% PVC-free but has reduced the use of PVC*	www.sonystyle.com
	MP3 Players	Apple	iPod Nano. The latest version released in September 2008 - older ipods have PVC	www.apple.com
Household Items	**Blow-Up Mattresses**	Aerobed	PerfomaLite mattress and self-inflating camp mats. Mats: polyester. Note - other aerobeds contain PVC	www.aerobed.com
	Floor Mats	Titan International	Polypropylene	www.titanmats.com

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Household Items	**Furniture**	Herman Miller	Chairs: Celle, Caper, Limerick, Mirra, Foray (Seating: TPU and self-skinning PU foam as replacements for PVC arm pads); Filing and Storage: Meridian Pedestals, Tu Pedestals (Filing and storage products made of nylon and TPU as replacements for PVC); Systems: My Studio Environments (My Studio: cross-linked PE, and styrenic block copolymer elastomers (type of TPE)	www.hermanmiller.com
		IKEA	PE, plywood, polyester fiber, PU, solid wood, textiles, waterfowl feathers	www.ikea.com
		Knoll	Life chair. Aluminum, steel, glass filled nylon. Available in plastic and aluminum base	www.knoll.com
		Steelcase	Items marked as PVC-free/ Cradle-to-Cradle certified, including: Answer system, Montage system, Pathways Post and Beam system, Siento Chair, etc.) Steelcase has set a goal to be 100% PVC-free by 2012. Recycled aluminum, leather, water blown cushioning foam, etc.	www.steelcase.com
		Teknion	Contessa chair. Mesh	www.teknion.com
	Luggage	Jansport	Denier polymer fabric	www.jansport.com
		Patagonia	Duffels and wheeled duffels. Nylon coated with PU	www.patagonia.com
		Sealline Gear	Boundary Pack. 300D PU-coated polyester and scrim-reinforced urethane PEVA	www.seallinegear.com
	Organizational Items	Bed Bath & Beyond	Canvas, metal, nylon mesh, polyester, suede microfiber	www. bedbathandbeyond.com
	Outdoor Furniture	Bench Express	Recycled steel	www.benchexpress.com
		Lifetime	HDPE	www.lifetime.com
		Loll	HDPE	www.lolldesigns.com

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Household Items	**Outdoor Furniture**	Vivaterra	Recycled oak wood (from wine barrels)	www.vivaterra.com
	Window	Designtex	Beechwood cellulose fiber (Climatex), nylon, polyester, wool, etc. All draperies, screens and shades are PVC-free	www.dtex.com
		Draper	Mesh shades: Hexcel acrylic-coated fiberglass yarn. Mesh fabrics: Terra, Vela, Infinity. Black-out shades: fiberglass or polyester with acrylic coating. Blackout Fabrics: Flocke, Roc-Rol, SW7000	www.draperinc.com
		IKEA	Bamboo	www.ikea.com
		InPro Corporation	Avora® and Trevira CS. Polyester	www.inprocorp.com
		Kona Roman Shade	Bamboo linen/cotton blend	www.target.com
		Lutron	SheerNature fabrics only. Hexcel glass fabric	www.vimco.com
		Nysan	GreenScreen internal/external roller shades. Trevira© CS polyester fabric with PU coating	www.nysan.com
		Target	Global Home Ivory. Jute	www.target.com
Kitchen and Dining Products	**Aprons**	Domestic Diva	100% cotton	www. bedbathandbeyond.com
		Kitchensmar	100% cotton	www. bedbathandbeyond.com
		MU Kitchen	100% cotton	www. bedbathandbeyond.com
	Dish Drying Racks	IKEA	Magasin (Solid pine wood); Ordning (stainless steel)	www.ikea.com
	Drinking Straws	IKEA	Sommar (PP)	www.ikea.com
	Eating Utensils	Cereplast	Starch-based plastic (with small amount of petroleum-derived plastic)	www.cereplast.com
		Recycline	Recycled PP	www.recycline.com
	Food Wrap and Packaging	Farberware	Containers: PP	www.costco.com

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Kitchen and Dining Products	**Food Wrap and Packaging**	Glad	HDPE, LDPE, PP	www.target.com
		Greenfeet	PVC-free plastic	www.greenfeet.com
		Natural Value	HDPE, LDPE, PP	www.kmart.com
		Rubbermaid	HDPE, LDPE, PP. Note - Rubbermaid does use polycarbonate plastic in some of its products	www.target.com
		Saran Wrap	Premium Wrap, Cling Plus Wrap, both made out of polyethylene. *Note - the original Saran Wrap was made out of PVC but SC Johnson reformulated the product to remove all PVC*	www.saranbrands.com
		Tupperware	HDPE, LDPE, PP Note - polycarbonate is used in the following products and should be avoided - Rock 'N Serve Line, Heat 'N Serve, Pizza Keep' N Heat container, the base of the Meals-in-Minutes Microsteamer, Sheerly Elegant Line, Table Collection, Prisms, Candy Dish, Olive Oil bottle and, from time to time, tumblers	www.kmart.com
		Ziploc	HDPE, LDPE, PP	www.costco.com
	Placemats	Baby Placemat	FDA-approved materials, latex-free	www.mypreciouskid.com
		Bambu	Bamboo	www.greenfeet.com
		Britta	PP	www.ikea.com
		Mimi the Sardine	Cotton coated with acrylic	www.mimithesardine.com
	Table Cloths	Casual Home	Cotton	www.target.com
		IKEA	Acrylic fabrics, cotton, polyester	www.ikea.com
		Kmart	Essential Home. Cotton, polyester lace	www.kmart.com
Miscellaneous Products	**Adult Sex Toys**	Babes in Toyland	They sell some PVC-free sex toys, but also sell many made out of PVC	www.babeland.com

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Product Category	Product	Manufacturer or Retailer	Comments	More Information
Miscellaneous Products	**Adult Sex Toys**	Burning Angel	They only sell PVC-free sex toys	www.burningmerch.com
		Earth Erotics	They only sell PVC-free se toys. Silicone, glass, elastomer	www.eartherotics.com
		Smitten Kitten	They only sell PVC-free sex toys	www.smittenkittenonline.com
	Christmas Trees	Oak Tree Enterprises	Aluminum (vintage)	www.oaktreeent.com
		Yule Tide Expressions	Aluminum	www.yuletideexpressions.com
	Gift, Credit, Key Cards	Arthur Blank	Corn-based polymers (CornCard USA) Note - the AB RecycleCard and other cards from this company are made of PVC	www.arthurblank.com
		Green Key	Paperboard	www.greenkeycard.com
		Smart Transactions	Artisyn (polyester-based)	www.smart-transactions.com
	Halloween Costumes	Harrison's Halloween	Baby costumes. 100% cotton	www.harrisonshalloween.com
		Nova Natural Toys and Crafts	Silk	www.novanatural.com
	Respiratory and Hearing Protection	Moldex	Various products	www.moldex.com
Pet Supplies	**Pet Beds**	Green Home	100% organic cotton	www.greenhome.com
		Planet Dog	Fleece, polyfiber fill	www.planetdog.com
		West Paw Design	Intelliloft fiber fill made of recycled PET plastic bottles	www.westpawdesign.com
	Pet Collars	EK Ekcessories	Green & Pink Camo Collar. Nylon	www.petco.com
		Planet Dog	Hemp	www.planetdog.com
	Pet Leashes	Petco	The Grrrip Big Dog Leashes. Nylon	www.petco.com
		Planet Dog	Hemp	www.greenhome.com
	Pet Toys	Petco	Kitty Hoots AppeTeaser Catnip Cat ToyOrganic catnip,. Fabric	www.petco.com

CHEJ does not endorse any of these products, manufacturers or retailers, nor provide any warranty of the appropriateness of listed products.

Product Category	Product	Manufacturer or Retailer	Comments	More Information
Pet Supplies		Planet Dog	Orbee Tuff toys (Bone, RecycleBall, Tug Toy, etc.). TPE w/white olefinic oil; "RecycleBall and "RecycleBone" made from old toys sent back for recycling	www.planetdog.com
School and Office Supplies	**Backpacks**	CBH Studio	E_Max Laptop Back, Kiwi Bird Backpack, and Polar Bear Backpack	www.cbhstudio.com
		Fleurville	Kid's Messenger, People Pak	www.fleurville.com
		High Sierra	Denier polymer fabric	www.highsierra.com
		Jansport	PU	www.jansport.com
		L.L.Bean	Various styles and materials	www.llbean.com
		Patagonia	Mesh, nylon, PU	www.patagonia.com
		Progressive Kid	Kids Backpack/Messenger Bag (various designs), People Pak, Re-Run Messenger (various designs)	www.progressivekid.com
		Rawganique	Hemp	www.rawganique.com
		Seal Line Gear	Urban Backpack, Shoulder Bag and Tote bag: PVC-Free Boundary Backpack (other bags have PVC). PU-coated polyester and scrim reinforced urethane	www.seallinegear.com
		Timbuk2	Hemp, nylon, PET, TPU waterproof liner	www.timbuk2.com
		Vulcana	Hemp and/or recycled rubber	www.vulcanabags.com
	Filing Cabinets	Europlan Industries	Galvanized steel, recyclable aluminum and polypropylene	www.europlan.co.nz
	Lunch Boxes and Bags	California Innovations	Hi-Top Munchsak, Lunch Pack, Pattern Tote, Power Pack Plus, Secret Bucket, Upright HardBody Lunch Box	www.californiainnovations.com
		Crocodile Creek	Lead-free	www.crocodilecreek.com
		Ecobags	Canvas, organic canvas or recycled canvas with velcro close	www.ecobags.com
		Fleurville	Lunch Buddy, Lunch Pack	www.fleurville.com

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Product Category	Product	Manufacturer or Retailer	Comments	More Information
School and Office Supplies	**Lunch Boxes and Bags**	Land's End	ClassMate, Deluxe Lunch Sack, HotStuff, Lunch Sack, Therma Cool	www.landsend.com
		L.L. Bean	Various styles and materials	www.llbean.com
		Reusablebags.com	Lunchbugs Cloth Lunch Bags, CoolTotes Insulated Bags, EarthPak Bags, SIGG Kids bags, Lunch Pak, Laptop Lunch Kit, Byo Lunchbag	www.resusablebags.com
		The Soft Landing	Laptop Lunch Bento Box Sets	www.thesoftlanding.com
		Tin Box Company	Tin	www.tinboxco.com
	Media/ CD/DVD Storage Pages and Sleeves	Avery	CD-ROM binder pages (item 75263) .PP: two CD/DVD and booklets per page, 3-hole punched	www.avery.com
		C-Line Products	CD Holders. PP	www.c-lineproducts.com
		Tabbies	PP- punched for 3 ring, self-adhesive CD holder, space saving poly CD holder	www.tabbies.com
	Modelling Clays	Crayola	Air-dry clay	www.crayola.com
		Play-Doh	Flour-based	www.hasbro.com
	Notebooks	Mirage Paper Company	Ecojot Greenlined Journal Notebook. 100% recycled, chlorine-free paper; paperboard cover; vegetable-based inks	www.ecojot.com
		Office Depot	Foray. Paperboard with wire binding	www.officedepot.com
	Organizer/ Phone/ Address Books	House of Doolittle	Recycled paper covers and pages and soy inks Note - one planner, item # 242 has a vinyl cover	www.greenofficesupply.com
	Paperclips (color)	The Green Office	Plastic Clips	www.thegreenoffice.com
	Report Covers	The Green Office	Pressboard Report Cover with Reinforced Top Hinges, Pressboard Report Covers with Tyvek Reinforced Hinges	www.thegreenoffice.com

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Product Category	Product	Manufacturer or Retailer	Comments	More Information
School and Office Supplies	**Sheet Protectors**	The Green Office	Easy Load Top Loading Recycled Polypropylene Sheet Protectors	www.thegreenoffice.com
	Three-Ring Binders	Avery	Aluminum Binders, Round Ring Poly Binder, Translucent Active Reference Binder. Note - many Avery binders are PVC	www.avery.com
		Fleurville	Re-Run Beta Binder	www.fleurville.com
		The Green Office	Aurora Products Elements Eco-Friendly Round Ring Binder, Recycled PRESSTEX Round Ring Binders, Rebinder Round Ring Binders and Replacement Covers, and others	www.thegreenoffice.com
		The Sustainable Group	Various sizes. Recycled corrugated cardboard	www.sustainablegroup.net
		Unikeep.com	Polypropylene	www.unikeep.com
Sporting Goods	**Camping Supplies**	Earthworks	Tipis. "Sunforger" fabric: 100% cotton. Note - other products from this company use PVC	www.coloradoyurts.com
		Sierra Designs	Tents. Nylon, PU, PVC-free seam tape	www.sierradesigns.com
	Dry Bags (i.e. for boating)	Sealline	Storm Sack, Kodiak Taper, and Kodiak Window dry bags; other bags made with PVC. Nylon	www.seallinegear.com
	Fishing Lures	FoodSource	All-edible, biodegradable, non-plastic fishing lures	www.fslures.com
	Surfing/ Diving (wet suits)	Patagonia	80% non-petroleum based ingredients, recycled polyester, and silicone knee pads, wool lining	www.patagonia.com
	Yoga Mats	Crescent Moon Yoga	Earth Friendly Eco mat. Jute, rubber, TPE	www.crescentmoonyoga.co
		Eco Yoga Mat	Jute, rubber	www.barefootyoga.com

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Product Category	Product	Manufacturer or Retailer	Comments	More Information
Sporting Goods	**Yoga Mats**	Gaiam	Earth Lovers (cotton), Premium Eco Natural Rubber Yoga Mat and reversible yoga mats (cotton, rubber or combination - latex free). Note - this company sells other yoga mats made with PVC	www.gaiam.com
		Health & Yoga	Grass mat w/cotton canvas border, latex backing	www.healthandyoga.com
		Hugger Mugger	Earth Elements Mat. Latex and rubber-free TPE. Note - other yoga mats contain PVC	www.huggermugger.com
		Jade Yoga	Various designs. Rubber	www.jadeyoga.com
		Lotuspad	Various designs. TPE	www.lotuspadyogamats.com
		Manduka	Eko Mat. Rubber	www.manduka.com
		Natural Fitness	National Rubber Yoga Mat - Professional	www.naturalfitnessinc.com
		Nike	Style FE0140. TPE, latex-free	www.nike.com
		NU Source	Terra Pure Mat. TPE. Note - other mats from Nu Source contain PVC	www.nu-sourceinc.com

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Common Household Products and Packaging That May Contain PVC

Apparel:

Aprons
Bags
Backpacks (PVC coating for waterproofing)
Bibs
Boots
Children's umbrellas
Diaper covers
Lingerie
Luggage
Raincoats
Rain pants
Skirts
Shoes
T-shirts with PVC prints (shiny)
Watchbands

Automotive:

Auto-related product containers
Car seats for children
Dashboards
Door panels
Traffic cones
Underbody coating
Upholstery treatments
Wire coating

Building Materials:

Cavity closure insulation
Door frames
Door gaskets
Fencing
Flooring
Gutters
Molding
Pipes
Roofing membranes
Shutters
Siding
Tiles
Wall coverings
Window frames
Wire/cable insulation

Household Items:

Checkbook covers
Cleaning product containers
Clothes racks (covers metal to prevent rusting)
Credit cards
Crib bumpers
Crib rail teething guards
Imitation leather furniture
Mattress covers
Pet care product containers
Photo album sheets
Self-adhesive labels and stickers
Shelving
Shower curtains
Strollers
Textiles
Toys (i.e. flexible bath toys, plastic dolls)
Waterbeds

Kitchen Items:

Commercial food wrap
Dish drying racks (coating) & drain pans
Dishwasher, refrigerator and freezer racks
Drinking straws

Food containers
Plastic utensils
Tablecloths

Medical Supplies:

Bed liners
Blood bags
Catheters
Colostomy bags
Gloves
IV bags
Mattress covers
Tubing

Office Supplies:

Binders
Cellular phones
Clipboards
Coated paper clips
Computer keyboards
Computer monitor housing
Mouse pads

Outdoor Items:

Balls
Children's swimming pools
Flowerbed edging
Garden hoses
Greenhouses
Inflatable furniture
Outdoor furniture
Pond liners
Tarps

Personal Care Items (packaging):

Aloe Vera Gel
Baby oil
Bubble bath
Face Wash
Hair gel
Liquid soap
Lotion
Massage oil
Mouthwash
Shampoo
Suntan lotion

It's Not Just PVC - Other Toxic Plastics to Avoid

It's no secret -- PVC isn't the only toxic plastic on the market. We also recommend avoiding these plastics to prevent harm: acrylonitrile butadiene styrene (ABS), polycarbonate (PC), and polystyrene (PS).

All plastics pose health and environmental hazards, not just PVC, ABS, PC, and PS, however some like PVC are much more hazardous than others. Most synthetic plastics are derived from fossil fuels and are byproducts of oil production. All pose some hazards in the raw materials extraction phase and in production. Those least preferred use hazardous chemicals and additives and pose greater dangers to workers and fenceline communities. Those more preferred do not use such hazardous monomers, intermediates or additives and have recycling infrastructure in place.

Other Plastics to Avoid

Plastic	Why It's Bad	Where Found / How to Identify
Acrylonitrile butadiene styrene (ABS)	This plastic is manufactured with styrene, a chemical that can damage the nervous system and is listed as a possible human carcinogen by the International Agency for Research on Cancer (IARC 2002). Other key chemicals used in its manufacture include acrylonitrile and butadiene, which are both listed as possible human carcinogens (IARC 1999).	This plastic was not part of the original plastics ID system, so it lacks a number (ACC 2007a). It is often used in piping, musical instruments, automotive body parts, wheel covers, and toys (Wikipedia 2008).
Polycarbonate (PC)	Polycarbonate plastic is manufactured with a synthetic sex hormone, bisphenol A (BPA). In 2008, the National Toxicology Program (NTP) raised concerns that exposure to BPA during pregnancy and childhood could impact the developing breast and prostate and affect brain development and behavior in American children. In October of 2008, the Canadian government classified BPA as "toxic" and moved toward restricting the substance in baby bottles (EWG 2008).	Often (though not always) marked with a "7" (which indicates "other" types of plastic) with the letters "PC" underneath the recycling symbol (ACC 2007a). Polycarbonate is a hard, durable plastic typically used to make reusable water bottles and baby bottles, in food can linings, and more (ACC 2008).
Polystyrene (PS)	Polystyrene is manufactured with styrene, a chemical that can damage the nervous system and is listed as a possible human carcinogen by the International Agency for Research on Cancer (IARC 2002). Toxic chemicals also leach out of polystyrene into food when heated. Manufacture also contributes to ozone formation (EJNET 1996).	This plastic is often marked with a "6" and used in food service items, such as cups, plates, bowls, cutlery, clamshell takeout containers, and rigid food containers. It's also used in packing peanuts, compact disc cases and other applications (ACC 2007a).

Learn More! Websites, Books and Other Resources

To find out more about what you can do to shop smarter and learn more about PVC, you can consult the following links to groups campaigning on PVC and important PVC-related resources.

Books:

Title	Author
Dying From Dioxin	Lois Marie Gibbs
Healthy Child Healthy World	Christopher Gavigan
Living Downstream: A Scientist's Personal Investigation of Cancer and the Environment	Sandra Steingraber
Our Stolen Future	Theo Colburn, Dianne Dumanoski, and John Peter Meyers
Pandora's Poison: Chlorine, Health, and a New Environmental Strategy	Joe Thornton
Poisoned Profits – The Toxic Assault On Our Children	Philip Shabecoff and Alice Shabecoff
Trespass Against Us: Dow Chemical & The Toxic Century	Jack Doyle

Films:

Title	Website
Blue Vinyl	www.myhouseisyourhouse.org
Contaminated Without Consent	www.contaminatedwithoutconsent.org
Sam Suds	www.pvcfree.org
The Story of Stuff	www.storyofstuff.com
Trade Secrets	www.pbs.org/tradesecrets/

Reports:

Title	Website
PVC: Bad News Comes in 3's	www.besafenet.com/pvc/pvcreports.htm
Volatile Vinyl: The New Shower Curtain's Chemical Smell	www.chej.org/showercurtainreport
Affidavit of the NY Attorney General's Toxicologist on the Hazards of PVC	www.healthybuilding.net/pvc/NYS_vinyl_affidavit_js.pdf
Aggregate Exposure to Phthalates	www.noharm.org/library/docs/Phthalate_Report.pdf
Birds of Prey	www.pvcinformation.org/assets/pdf/birdsofprey.pdf
Economics of Phasing Out PVC	www.healthybuilding.net/pvc/Economics_Of_Phasing_Out_PVC.pdf
Environmental Impacts of Polyvinyl Chloride (PVC) Building Materials	www.healthybuilding.net/pvc/Thornton_Enviro_Impacts_of_PVC.pdf
In Strictest Confidence - the Chemical Industry's Secrets	www.chron.com/content/chronicle/special/vinyl/
Message in a Bottle: The Impacts of PVC on Plastic Recycling	www.grrn.org/pvc/
This Vinyl House	www.greenpeace.org
Update on the Environmental Health Impacts of PVC as a Building Material: Evidence from 2000-2004	www.healthybuilding.net/pvc/steingraber.pdf

Websites:

Organization or Campaign	Website
Center for Health, Environment and Justice: PVC- The Poison Plastic	www.besafenet.com/pvc
Center for Environmental Health	www.cehca.org
The Chemical Industry Archives	www.cehca.org www.chemicalindustryarchives.org/dirtysecrets/vinyl/1.asp
Collaborative on Health and Environment	www.healthandenvironment.org
Electronics Take Back Coalition	www.electronicstakeback.com
Healthy Toys	www.healthytoys.org
Deceit and Denial	www.deceitanddenial.org
Environmental Health News	www.environmentalhealthnews.org
Global Alliance for Incinerator Alternatives	www.no-burn.org
Grassroots Recycling Network	www.grrn.org
Greenpeace	www.greenpeace.org
Health Care Without Harm	www.noharm.org
Healthy Building Network	www.healthybuilding.net
My House Is Your House	www.myhouseisyourhouse.org
Trade Secrets	www.pbs.org/tradesecrets

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Appendix A: Cheat Sheet to Common Plastic Acronyms

Name of Plastic	Acronym	Recycling Number
*Acrylonitrile butadiene styrene	ABS	No number
Ethylene vinyl acetate	EVA	No number
Polyamide	PA	No number
*Polycarbonate	PC	7 – "other"
High density polyethylene	HDPE	2
Low density polyethylene	LDPE	4
Polyethylene	PE	N/A
Polyethylene terephthalate	PET, PETE	1
Polyethylene vinyl acetate	PEVA	No number
Polylactic acid	PLA	No number
Polypropylene	PP	5
Polyurethane	PU	No number
***Polystyrene**	**PS**	**6**
Polyvinyl butyral	PVB	No number
***Polyvinyl chloride**	**PVC**	**3**
Thermoplastic elastomer	TPE	No number
Thermoplastic polyurethane	TPU	No number

** We recommend you avoid these plastics. Please see the It's Not Just PVC – Other Toxic Plastics to Avoid section for more information.*

Get Involved!
Top Five Ways to Take Action

1. Sign Up for the PVC Action Network E-List.

Sign up for CHEJ's PVC Action Network e-list, and you will receive monthly action alerts and updates when it matters most and can participate in online consumer campaigns with one easy step. It's a great way to stay posted on campaign news, victories, and urgent actions. To join, just click "sign up" at http://www.besafenet.com/pvc.

2. Tell Your Friends and Family

Tell your friends and family about PVC's impact on our health and environment, and encourage them to avoid PVC and sign up for the PVC Action Network e-list.

3. Watch and Help Promote Sam Suds and the Case of PVC, the Poison Plastic

Watch CHEJ's humorous animated detective spoof, **Sam Suds and the Case of PVC the Poison Plastic** online at http://www.pvcfree.org. It's a fun way to learn about the dangers of the poison plastic. After you watch the video, help us spread the word about it! Here are some simple ways you can help promote the video:

• Post a web banner or link on your website.
• Pass out postcards and flyers. Contact us for postcards to pass out.
• Show Sam Suds at a house party, community meeting or other event. Contact us for a free DVD you can show.
• On MySpace? Become Sam's friend: www.myspace.com/samsuds

4. Organize a Blue Vinyl Screening

Organize a screening of the award-winning documentary, Blue Vinyl, a toxic comedy that examines PVC's toxic lifecycle. The film is a winner of the Excellence in Cinematography Award at Sundance and has been applauded as "scary and hilarious!" (Elvis Mitchell, New York Times). Whether it's a screening in your living room or a screening at a local community center or church, this hard-hitting documentary is a great way to spread the word about the dangers of PVC. For information and support resources for organizing a public or targeted screening of BLUE VINYL contact Working Films: www.workingfilms.org.

5. Pass a Local PVC-free Purchasing Resolution

Encourage your local school, church, city/town government, or company to pass a toxic-free purchasing policy, to phase out the purchase of extremely toxic chemicals and products such as PVC. Model PVC-free purchasing policies have been passed all around the country. Contact us and we'd be happy to help you develop strategies to get a local purchasing policy passed and provide model resources to get your local campaign going.

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