What do the following have in common?

Apparel:
Aprons
Bags
Backpacks Bibs
Boots
Diaper covers
Lingerie
Luggage
Raincoats
Rain pants
Skirts
Shoes
T-shirts prints
Watchband

Cars:
Auto-related product containers
Car seats Dashboard
Door panels
Traffic cones
Upholstery

Building Materials:
Cavity insulation
Door frames
Door gaskets
Fencing
Flooring
Gutters
Moulding
Pipes
Shutters
Tiles
Wall coverings
Window frames
Wire/cable insulation

Household Items:
Cleaning product containers
Clothes racks
Checkbook covers
Fake Christmas trees
Imitation leather furniture
Mattress covers
Pet care product containers
Photo album sheets
Self-adhesive labels and stickers
Shelving
Strollers
Shower curtains
Textiles
Toys
Waterbeds

Kitchen Items:
Appliance casings
Beverage containers
Dish drying racks (covers metal to prevent rusting)
Dishwasher, refrigerator and freezer racks
Drinking straws
Food containers
Food wrap
Plastic utensils
Tablecloth

Medical Supplies:
Bed liners
Blood bags
Catheters
Colostomy bags
Gloves
Mattress covers
Tubing

Office Supplies:
Binders
Cellular phones
Clipboards
Computer keyboards
Computer monitor housing
Floppy disks
Mouse pads
Paper clips
Tape

Outdoor Items:
Balls
Children's swimming pools
Garden hoses
Greenhouses
Inflatable furniture
Outdoor furniture
Pond liners
Tarps

Personal Care Items (packaging):
Aloe Vera Gel
Baby oil
Face Wash
Hair gel
Liquid soap
Lotion
Massage oil
Mouthwash
Shampoo
Suntan lotion

Miscellaneous:
Credit cards
Landfill liners and leachate pipes
Slide holders

They are all PVC-containing products commonly found in your home. This list is meant to be a starting point for identifying what common products are packaged in or made from PVC. Generally soft flexible plastic products that are made with PVC have a distinct odour. They also often carry the PVC recycling sign.

Ever wondered about that new car smell or the smell of a new shower curtain? This is the smell of chemicals that can evaporate or leach out of PVC products, which effectively pose a possible health risk consumers. One of the most common toxic additives is DEHP, which is a phthalate that is a suspected carcinogen and reproductive toxicant commonly found in many PVC products. Children are commonly exposed to phthalates when they chew on soft plastic toys which commonly contain both PVC and phthalates which are used soften the PVC. In July, 2005 the European Parliament voted to permanently ban the use of certain toxic phthalates in toys. US EPA study have found that PVC can cause elevated levels of dangerous air toxins, which can persist for more than a month.

groundWork
P O Box 2375
Pietermaritzburg, KZN
South Africa, 3200

Tel: +27 (0)33 342 5662
Fax: +27 (0)33 342 5665
e-mail: musa@groundwork.org.za
team@groundwork.org.za
www.groundwork.org.za

PVC

The Poison Plastic

PVC, which stands for polyvinyl chloride, is a component of plastic commonly used in consumer products, and widely used in medical products. Not only is PVC itself poisonous to those who live close to factories where it is manufactured, but its use and disposal also cause the release of toxic chemicals such as dioxin. Added to this is the danger of phthalates, which are added to PVC to make it more flexible.

The manufacture of PVC products releases toxic chemicals and dioxin into the air around the factories, which disproportionately affects poor communities and communities of colour. And the incineration of waste containing PVC also releases dioxin. In a medical setting, commonly used PVC products include intravenous bags, tubing, blood bags and oxygen tents – not to mention other products such as mattress covers, packaging, and office supplies.

Dioxin is a human carcinogen and is considered to be one of the most poisonous classes of chemicals in the world. It is a toxic byproduct of the manufacture and incineration of products that contain chlorine. It causes cancer, birth defects, and other reproductive problems such as endometriosis. It also causes brain defects in babies and children, affects the immune systems of adults and children (especially babies), and decreases hormone levels such as testosterone and thyroid hormones.

Dioxin is especially dangerous for prenatal babies and newborns because it bioaccumulates – this means that it builds up in the food chain, in meat, eggs, dairy and fish, for example. And it is concentrated in breastmilk, posing an increased danger to breastfed babies.

Furthermore, the addition of phthalates to PVC products to add flexibility adds even more dangers. DEHP (di-ethylhexyl phthalate) is the most common phthalate that is used in medical devices, and has been shown to leach into solutions given to patients. DEHP has been linked to reproductive defects in animal studies. It is especially dangerous for pregnant or breastfeeding women, newborns, and male children, where DEHP can affect development of reproductive organs. It is classified as a probable human carcinogen by the US Environmental Protection Agency, and studies have shown that it may also cause damage to the heart, liver, and kidneys, and may interfere with sperm production

Phthalates, called "plasticizers", are a group of industrial chemicals used to make plastics like polyvinyl chloride (PVC) more flexible or resilient and also as solvents. Phthalates are nearly ubiquitous in modern society, found in, among other things, toys, food packaging, hoses, raincoats, shower curtains, vinyl flooring, wall coverings, lubricants, adhesives, detergents, nail polish, hair spray and shampoo.

The dangers are magnified for babies in neonatal intensive care units, where researchers at the Harvard School of Public Health have shown that exposure levels are especially high.

And it is not solely in the medical setting that people are exposed to phthalates. Exposure comes from a variety of sources, including beauty products, PVC toys, vinyl shower curtains, car seats, wallpaper and many other consumer products.

Fortunately, a growing number of hospitals, health systems, communities and manufacturers are reducing PVC and DEHP use around the world.

While these efforts are primarily taking place in Europe, the US and Japan, there are also some initiatives in developing countries.

For example, in Buenos Aires, Argentina, the Neonatal Unit at Rivadavia Hospital has replaced the majority of DEHP containing products with silicon alternatives. India has had a PVC incineration ban in place since 1998. The World Health Organisation is advocating for the selection of PVC-free medical devices as a short term solution to medical waste problems. And in the Philippines, the government has also stated that, where possible, PVC-free medical supplies should be used.

Safer, Healthier Alternatives

Safer, cost-effective alternatives to PVC are readily available for virtually every use. You can help build consumer demand for safer, healthier products by avoiding the purchase of PVC. One way to be sure if the packaging of a product is made from PVC is to look for the number "3" inside or the letter "V" underneath the universal recycling symbol. In addition, soft flexible plastic products that are made with PVC often have a distinct odor, such as vinyl shower curtains. If you suspect that a product is made of PVC, contact the product manufacturer and ask them directly about the materials used in the product or packaging and your concerns about PVC.