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SPOTLIGHT ON PVC: AN ESPECIALLY PROBLEMATIC PLASTIC

The familiar plastic called PVC, or “polyvinyl chloride”, is a perfect example of the many hazards that may be found in plastic materials. Also called simply “vinyl”, it is used in products ranging from house siding to drinking water pipes, pool toys to synthetic leather clothing.

PVC is a polymer made up of the monomer “vinyl chloride”. Vinyl chloride monomer is a potent carcinogen, primarily affecting workers in the factories where PVC is manufactured. At the other end of its life cycle, the incineration of PVC creates the extremely potent **carcinogens** called **dioxins and furans**. These dangerous by-products are much more common when plastics are burned at low temperatures—a very common method of waste disposal through much of the world. Dioxins and furans persist indefinitely in the environment, and are carried great distances by air and sea. Today, people and wildlife in even the most remote Arctic regions—thousands of miles from the nearest incinerator—carry dangerous levels of dioxins produced by the burning of PVC.

But these problems are only the beginning of the hazards of PVC. **Over 70% of additives used on the global plastics market are used in PVC.** For example, to add stability to the polymers, **lead** has often been added to the plastic. Lead, a potent **neurotoxin**, is not bound to the plastic material, and can easily migrate out. Holiday lights sold in California bear a warning to the user to wash their hands after setting up the lights, since the PVC-coated wires contain significant amounts of lead. Although the use of lead stabilizer in PVC has now been banned in Europe, industry continues to argue for the right to recycle lead-contaminated PVC, a practice which would ensure the contamination of recycling loops far into the future.

Finally, PVC itself is a very hard plastic. When softness and flexibility is desired, this can be achieved by adding large amounts of phthalates—a class of chemicals that includes many endocrine disrupters. For example, blood bags and other IV bags are often made of PVC, with phthalates added to make them flexible and supple—resulting in huge doses of endocrine disrupting phthalates for patients with extensive IV treatment, like dialysis patients or babies in neonatal intensive care. The most hazardous and widely used phthalates have now been restricted in Europe—but many more phthalates remain on the market.



VISIT HEAL'S REPORT 'TURNING THE PLASTIC TIDE: THE CHEMICALS IN PLASTIC THAT PUT OUR HEALTH AT RISK' FOR MORE INFORMATION



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