



Persatuan Pengguna Pulau Pinang Consumers Association of Penang

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Press Release

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Toys Made of Black Recycled Plastics – Threaten Children’s Health!

The Consumers’ Association of Penang (CAP) urges the federal government to take serious action on the adverse effect of toys made of black recycled plastics that poses threat to the health of children. A ground-breaking study analysing the effects of toxic chemicals in plastic children’s toys and consumer products on human cells has revealed that toys made from some recycled plastics are toxic to humans and can significantly contribute to the dioxin daily intake level for children who mouth their toys.

The study was undertaken by a team of researchers from Arnika, BioDetection Systems, and International Pollutants Elimination Network (IPEN), a global civil society network of which CAP is part of in advocating for a toxics-free future.

We are very concerned of the findings which highlights a dangerous flaw in the circular economy model which seeks to reduce plastic waste through increased plastic recycling. Current recycling systems allow plastics with flame retardant chemicals and dioxins to be put into the recycling stream, resulting in dangerously contaminated products made of recycled plastics, such as the sampled toys in the study.

The levels of toxic chemicals revealed in all the samples studied were comparable to levels found in hazardous wastes, such as the ash from waste incinerators. Toys made of black plastic, which are often derived from recycled electronic waste plastics with flame retardant chemicals, are toxic to human cells. The study also reveals that children mouthing toys made from this plastic are at risk of dangerous health effects from the toxic material.

Black plastic often originates from highly toxic e-waste plastics containing toxic brominated flame-retardant chemicals. The researchers found perilously high levels of flame retardants and dioxin in the sampled toys and its components, in concentrations comparable to hazardous waste. The researchers also examined the toxicity of the samples to humans and its impact on living human cells. High dioxin activity was identified in the cell samples and it was concluded that teething and mouthing similar toys would significantly raise children’s daily dioxin exposure.

Dioxins are considered some of the world’s most toxic chemicals and are extremely harmful even in minimal amounts. Brominated dioxins are highly hazardous chemicals known to affect brain development, damage the immune system, increase the risk of cancer, and risk disruption of thyroid function. They are formed unintentionally during the production of brominated flame retardants.

It is to be noted that when plastics with brominated flame retardants are recycled and heated to be reformed into new plastic products, additional brominated and chlorinated dioxins are formed. While they are not globally banned, brominated dioxins are recognized by the World Health Organization to be as toxic as closely related chlorinated dioxins.

Dr. Peter A. Behnisch, Director of BioDetection Services, the Amsterdam based laboratory that

conducted the analysis said that “Our methodologies using state-of-the-art human and mammalian cells, as well as chemical analyses to assess the toxic impacts of the plastics in this study, advance scientific knowledge about how toxic chemicals in plastics can impact human health. These findings indicate that in many consumer products manufactured with recycled black plastic containing brominated flame retardants (such as PBDEs), highly toxic brominated dioxin-like compounds are to be expected and should urgently be monitored and prevented.”

Jindrich Petrlik, Executive Director of Arnika, IPEN Advisor, and lead scientist for the project says, “This study demonstrates that our current system is allowing hazardous materials to be molded into toys. Stricter controls to keep Persistent Organic Pollutants (POPs) out of consumer goods are a moral imperative. We must stop the flow of e-waste, and plastics with flame retardants, into recycling and set sufficiently strict limits for POPs in waste. Otherwise, we are looking at a toxic circular economy.”

“We are surrounded by plastics, especially in toys, and the chemicals used to make plastic are not always known, especially if the plastic is recycled. No parent wants to expose their child to toxics.” said Dr. R. Thomas Zoeller, Ph.D., Professor of Biology at the University of Massachusetts, Amherst pointing out the seriousness of cancer-causing chemicals found in the toys sampled.

CAP supports the call of researchers **for** immediate action to change the global recycling systems to prevent hazardous chemical content from entering the recycling chain.

CAP also calls upon parents to reduce their childrens’ exposure to toxic chemicals as a stop-gap measure by avoiding toys made with black plastic. While black plastic is most likely to be made from e-waste plastics, other coloured plastics can contain toxic chemicals as well.

CAP urges the relevant ministries including the Ministry of Domestic Trade and Consumer Affairs, Ministry of Environment and Water and the Ministry of Health to seriously review and revamp our recycling system to put an end to toxic recycling. Public health and safety of our children are of utmost importance and should not be compromised.



President
Consumers’ Association of Penang