Consumer alert

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IN a perfect world all consumers would go shopping with the confidence that the authorities would not allow any dangerous substances in consumer products which might damage their or their children's health irreversibly, resulting in lasting disorders or even death. Unfortunately, there is not even one country in the world where consumers are sufficiently protected by legislation from chemicals in products which can harm their health. Too many children have been born with birth and developmental defects because they were exposed, both in the womb and first years of their lives, to hazardous chemical substances in food, toys, clothing, furniture, paint and building materials.

Chemicals are a complex topic. There are more than 100,000 chemicals in the market, of which several thousands are potentially harmful to human health. The UNEP Global Chemicals Outlook 2012 estimates that each year 900,000 people die from exposure to hazardous chemicals and pesticides, and another two million fall ill.[1] These direct exposures to toxic substances can lead to immediate death and illness. These are often a result of exposure to chemicals in the workplace, such as pesticide spraying in agriculture. The indirect impact is often not visible immediately, but shows up in health complications several years later.

Children are particularly vulnerable when exposed to hazardous chemicals, as their organs like the brain are in the developmental stage for several years. A well researched and documented case records the impact of the heavy metal 'lead' on the development of children's brains. Children exposed to lead in car emissions and emissions from lead in paint, furniture, toys and wall paint have retarded brain development, measurable in reduced IQ. It took legislators in the USA 30 years between the time that the effects were confirmed in research, and the time the

1. UNEP – http://www.unep.org/hazardous-substances/Portals/9/Mainstreaming/GCO/The%20Global%20Chemical%20Outlook_Full%20report_15Feb2013.pdf

legislation was passed to ban lead in petrol and paint. Even though several European countries banned the use of interior lead based paints as early as 1909, it was only in 1971 that lead based house paint was phased out in the United States with the passage of the Lead-Based Paint Poisoning Prevention Act. The European Environment Agency has gathered a number of these cases in the publication by David Gee, 'Late Lessons from Early Warnings'.[2]

Unfortunately, many countries do not have mandatory regulations to ban lead in paints and other products. India has a voluntary BIS standard and labelling, in which case it is important that consumers are informed and made aware that they need to read the labels to avoid lead in paint, furniture, toys, PVC lunch boxes, lipstick and food cans. The conscious consumer needs to do a lot of self-education to be able to avoid even one of the many hazardous substances such as, in this case, lead.

Not just lead, but many other heavy metals which are known to be toxic continue to be found in consumer products, including children's products. Mercury is finally going to be banned at the global level after all states agreed on the Minamata Convention earlier this year, which should be ratified in October during the ratification ceremony in Japan. The tragic events in the town of Minamata made the world aware of the deadly health impacts of mercury, the heavy metal commonly used in thermometers.

A Japanese company, Shin-Nippon ChissoHiryo, polluted the Minamata Bay with mercury in the 1950s and '60s. The bay provided the citizens of Minamata with their main source of food, fish and shellfish, which became heavily polluted with mercury. Generations of children were born with complex birth defects, often paralyzed. The government recognized the relationship between the mercury pollution and birth defects in 1968, but only in 2010 did it provide 2.1 million yen for redress measures to aid victims. 65,000 victims have applied, but so far only 3000 have been recognized, of which three quarters have already died. The example of Minamata shows that victims of hazardous substances often have to fight a very long legal battle before their plight is acknowledged. Most consumers are never compensated for their tragic situation for which they are not responsible.

The Bhopal gas tragedy in India is a similar case where no retribution is in sight even after several decades. (The Bhopal disaster, also referred to as the Bhopal gas tragedy, was a gas leak incident in India, considered the world's worst industrial disaster. It occurred on the night of 2-3 December 1984 at the Union Carbide India Limited (UCIL) pesticide plant in Bhopal, Madhya Pradesh. Over 500,000 people were exposed to methyl isocyanate gas and other chemicals. A government affidavit in 2006 stated the leak caused 558,125 injuries, including 38,478 temporary, partial injuries, while approximately 3,900 were severely and permanently injured).

Mercury is still found in a number of consumer products in the marketplace – toys, thermometers, TL lights and in many bleaching skin creams. In India, 61% of the dermatological market consists of skin lightening products.[3] The main adverse effect of the inorganic mercury contained in skin lightening soaps and creams is kidney damage.[4] Mercury in skin lightening products may also cause rash, discolouration and scarring, as well as a reduction in the skin's resistance to bacterial and fungal infection. Despite the new Minamata convention, it will still take a long time before consumers in India are protected from mercury. Therefore, they need to be informed and aware consumers.

Lead, mercury, cadmium, nickel and other toxic metals are found in numerous consumer products, including toys. The European Union has developed legislation to regulate toys safety, which was recently renewed. Unfortunately, many aspects of chemical safety were ignored. In some areas, permissible levels of cadmium and lead in toys have even increased due to lobbying by the industry. Despite the clearly insufficient norms in the European toys directive, customs authorities report that 30% of all products inspected and rejected at the border are toys. 86% of imported toys come from China. These rejected toys are often sold in countries with less stringent legislation, and might therefore end up in shops in India.

It is problematic that the European toys directive insists on a self-declaration with the CE mark. Unfortunately this CE mark is no guarantee about the safety of toys, since it is not a quality label, thereby misleading many consumers. We need conscious consumers who know the difference between a self-declaration and a real quality seal. To help consumers make a choice for safe toys, our

2. Late Lessons from Early Warnings. European Environment Agency. http://www.eea.europa.eu/publications/late-lessons-2

3. B. Ladizinski, N. Mistry and R.V. Kundu, 'Widespread Use of Toxic Skin Lightening Compounds: Medical and Psychosocial Aspects', *Dermatologic Clinics* 29, 2011, pp. 111-123.

4. IPCS, Elemental Mercury and Inorganic Mercury Compounds: Human Health Aspects. WHO, Geneva, 2003. International Programme on Chemical Safety. (Concise International Chemical Assessment Document 50.) http://www.who.int/entity/ipcs/publications/cicad/en/cicad50.pdf

organization has produced a consumer pocket guide on toys safety, which is translated into eleven languages and can be freely downloaded at http://www.wecf.eu/english/publications/2009/publications-toysguide.php

Consumers need to be aware about many more hazardous substances to not only avoid heavy metals, but also other chemicals known to cause irreversible and incurable diseases. For example, chemicals which are known to cause cancer, mutations, infertility and other reproductive and brain damage, IQ loss or allergies, diabetes, autism or obesity, or disrupt the hormone system. That is indeed a scary list! As consumers we need to be aware about products containing a carcinogen, especially if that product is not essential to survival, such as a television, a couch or a toy.

What do consumers need to know? And where can they find that information? Let us take the example of Bisphenol-A (BPA), a chemical recently banned in a number of European countries from baby bottles and food packaging materials. This chemical causes different diseases based on the dose and length of exposure, changing the hormonal system. Children are the most vulnerable segment of the population. Some companies have gone ahead and banned BPA from their products, for example from the inside lining of food cans. The Bisphenol-A industry is challenging these charges with their own studies, trying to establish that the chemical is not dangerous for children.

Creating scientific uncertainty is a typical industry lobby counter-attack, which was widely used by the tobacco and the asbestos industry. It is a way of delaying legislation that would ban their products. The longer legislation is stalled, the more victims there are, but as witnessed in the Minamata case, or Bhopal, and from asbestos victims, their journey to obtain redress is difficult and slow.

Hormone disrupting chemicals are increasingly being investigated, as even in very small doses they might be responsible for the increase in a number of diseases such as infertility, attention deficit syndrome (ADS), autism, diabetes and obesity. For hundreds of years, scientists believed that *the doses made the toxin*, and regulating chemicals to a low but acceptable level was enough to protect public health. But the discovery of hormone disruptors has lead to a paradigm shift, where the doses that make chemicals toxic are obsolete. Hormone disruptors, which are officially referred to as endocrine disrupting chemicals (EDCs), show that even in very small doses, some chemicals can disrupt the hormone development of a child, depending on the time and length of the exposure. Many of the plastic softeners (phthalates) used in consumer products can have a hormone disrupting effect. Three of the most used phthalates have been banned in children's toys in the European Union, because it was argued that young children often put toys into their mouth.

Certain countries like Denmark have gone further and banned phthalates from all consumer products. When looking at the list of consumer products which contain such softeners, their reach is from floors to shower curtains, from plastic toys and bottles to couches and body lotions. Recent research has showed how these phthalates behave in the body. The Danish medical university tested the phthalates in blood of women using body lotion every morning. Surprisingly, the phthalates remained in the blood throughout the day, and thus, with daily use, their blood always contained some of these EDCs. When pregnant, these chemicals are transferred to the developing child, where they might have negative effects on the brain or reproductive organs. Numerous studies show that there might also be a link with the decrease in sperm count and the increase of infertility in Europe.

The problem for consumers is that these hormone disrupters are not only widely used, they are not labelled, so that it is almost impossible to avoid them. Our organization has created a website with information for consumers, focused on protecting the health of children from exposure to harmful chemicals, which is called 'project nesting – creating a safe environment for your child'. The nesting website exists in eight and soon ten languages, and is most developed in French, Dutch and German, where WECF has its three main offices. (see www.projectnesting.org)

The top 10 'nesting' tips are:

* If you are pregnant, let someone else renovate the new baby room.
* Avoid smoking and second-hand smoke; they contain harmful chemicals.
* New mantra: airing, airing, airing – open windows and refresh indoor air regularly.
* Always check labels for ingredients, instructions and warning signs.
* Ask the retailer when purchasing for information on the product's health and safety and its environmental impact.

* Wear a mask and protective gloves if labelling says it is required; ask the manufacturer for further information on safety.
* Ask for products carrying an environmental quality label (eco-label).
* See accompanying illustration for what India's Eco-label looks like.
* Avoid soft plastics toys and let new plastic or other toxic products stay outside in the open air for some days so that toxic fumes can escape.
* Eat home-grown and organic food as much as possible; avoid canned food.
* If a product smells of chemical, then it might well contain harmful chemicals.

Chemicals in food and food-packing are one of the main sources of contamination. Studies on the intake of hazardous chemicals show that food, drinks and food-packaging account for a large – if not the largest – share of contamination. Most of the hazardous chemicals in food come either from pesticide residue, or from food packaging. In general, if you have time, preparing your own food is always better then pre-cooked food. Even though children love sweet soft drinks and fatty hamburgers, parents should encourage them to develop healthy eating habits. Our organization WECF analyzed all the official pesticide residue data for the Netherlands in December 2012. According to our law on the right to information, citizens are allowed to access that information which is collected by the food inspection authorities by taking measures in all retailing outlets.

A chemical expert identified the food products containing residue of pesticides which might disrupt the hormone system. The results were a shock: *90% of conventional apples sold in Dutch supermarkets contain hormone disrupting pesticide residue*, with the exception of organic apples. Dutch consumers are completely unaware of this fact and believe that the levels of residue are so low that it does not pose a health problem. But as the residue on salad showed, 500 grams of salad contain more hormone active substances (from pesticides) than are found in an anti-conception pill. Of course, the pill is a medicine, but the example only goes to show that even very small doses can have a major impact. We therefore need conscious consumers who understand that little doses might have big health impacts. The WECF has published a consumer pocket-guide on how to avoid EDCs, which can be found at http://www.wecf.eu/english/publications/2013/guide_edcs.php

Protection: a consumer right. Currently, the Human Rights Council at the United Nations has several independent experts who have the mandate to investigate to what extend our human rights are being disregarded by the lack of protection from harmful chemicals, waste and environment pollution. As consumers we have the right to ask for protection from hazardous products. Consumers need to use the right to information about hazardous substances in consumer products and food, and where safe substitutes exist, legislation should ensure a mandatory phase out and substitution. Some industry sectors oppose such measures, especially if the sector is dependent on one single substances, such as asbestos or brome.

Currently, non-governmental organizations working on consumer protection and health are calling for regulation to phase out brominated flame retardants because of their negative health effects. Since substitutes exist, there is no reason to wait. Consumer organizations therefore have an important role to help implement our human right to protect our health from hazardous substances. The most effective approach is to have legislation which encourages innovation for safe products, and phases out hazardous products. Such legislation should be based on the precautionary principle, namely that if there is an indication of harm, suitable measures should be taken.

The child should be the norm, that is, if children's health is likely to be negatively effected, it is reason enough to legislate for mandatory substitution of the product causing harm. After 50 years of insufficient regulation, some regions are slowly moving to implement of the precautionary principle, through the 'no data, no market' approach. Chemicals are only allowed in the market if industry has paid for the tests which show that there are no negative health impacts. In this way, the burden of proof has been reversed; it is no longer the victims of the chemical who have to bring together proof, but industry too has to prove that the product is safe.

In the European Union, the chemical regulation which was introduced three years ago is starting to have effect. Many companies have benefited from the regulation of chemicals. They have been more effective in their use of chemicals and also reduce costs. For society, the cost saving should be very great as well, as each cancer avoided is a saving of up to one million Euro per person. Therefore, we need conscious consumers, who demand effective legislation, who help society protect consumer health and environmental safety, and who encourage companies which produce better and safer products. Thus, finally, every one of us must join a consumer and environmental protection organization, so that our children might live in a safer and healthier world.