



What REACH can do for Women- a Position

REACH (Registration, Evaluation and Authorisation of Chemicals) is the EU's draft chemicals regulation, currently under discussion in the European Parliament and Council

Humans in Europe are on a daily basis exposed to synthetic chemicals everywhere on a daily basis: in the shower, in front of the computer, in the kitchen and in the workplace. This exposure takes place without our knowledge or consent. Many of these chemicals pose a threat to human health on the basis of their intrinsic properties. Many such chemicals do not break down in the body and accumulate in human body fat. They might be carcinogens, some of them have the ability to alter our DNA (mutagenic chemicals), or they are toxic to reproduction. Again others interfere and disrupt with the hormone system of animals and humans. Many such chemicals do not break down in the body and accumulate in human body fat and in the environment. To date, up to 300 man-made chemicals have been detected in the human body. These chemicals accumulate over a life time and then are passed on by each generation, directly from mother to child. Alarmingly, of the 100.000 chemicals on the European market, the vast majority have very little information on their health and environmental effects. This is an unacceptable information gap and one of the major problems Europe faces with regards to the existing chemicals policy.

Women, men and children are susceptible and exposed to chemicals in different ways. Biological factors are one reason for the different vulnerability of women with respect to synthetic chemicals. However, social factors are also influential when it comes to women's exposure to man-made chemicals and pollutants. For example, there is a direct link between prevailing traditional gender roles and exposure to chemicals in household and cleaning products, cosmetics and personal care products.

One group of specific chemicals, identified as *chemicals of very high concern*¹ in REACH, is specifically dangerous to human health and the environment, in addition to the different susceptibilities of women and exposure routes women are affected by. REACH will address the lack of regulatory mechanisms leading to a failure to control this group of substances in the EU. Below are a few key points on the relevance of the draft regulation for women in Europe.

1. Under REACH, the most dangerous chemicals which affect women's health will need to be specifically authorised if they are to be marketed in Europe

We do not know much about the chemicals on the European market contained in consumer products. Only 5% of chemicals have sufficient data available to allow them to be classified as to their hazardous nature. An estimated 3000 substances on the EU market are likely to match the criteria for *chemicals of very high concern* under REACH. Such chemicals will only be permitted for further uses if they receive specific authorisation for each use. A good example of a substance that will be subject to authorisation under REACH is Bisphenol A. This is a substance used in basic goods such as baby bottles, the lining of tin cans and compact discs. Bisphenol A is an endocrine disrupter and toxic to several body systems. It is damaging to the immune system, to the neurological system and to the development of the reproductive system of both animals and humans. Research in animals has shown that *Bisphenol A* affects the health of animals at levels 2500 times lower than the US Environmental

¹ Chemicals that are: persistent, bioaccumulative and toxic (PBT), very persistent, very bioaccumulative (vPvB), carcinogenic, mutagenic, toxic to reproduction (CMRs), endocrine disrupters or of similar concern

Protection Agency's (EPA) "lowest observed dose effect".² We can not even imagine what the actual health effects of this substance are to the human body as a result of lifelong exposure. Other examples are:

- **phthalates:** act as endocrine disrupters, contained in flexible PVC as it is used to soften the material;
- **parabens:** act as endocrine disrupters, used as preservatives in anti-perspirants and other cosmetics like shampoo. Last year British scientists found the substance in breast tumour tissue of women. They assumed the substance had migrated through the skin (in armpits) and made its way into the breast tissue;³
- **brominated flame retardants (e.g. deca-BDE):** used in electronic appliances and furniture fabrics, persists in the human body, and acts as a hormone disrupter.

Some scientists are increasingly concerned about the connection between exposure to chemicals such as endocrine disrupters and the development of cancer;

- **formaldehyde:** a carcinogen, used in for example air fresheners, causes multiple types of cancer

It is a central concept of REACH that these kind of chemicals will need to undergo authorisation before they can be continued to be used in Europe. However exactly how high the barrier to further use is subject to a fierce debate and the exact wording of the legislation will be crucial if such substances are to be phased out of use.

The problem is with the current wording of the Authorisation chapter in REACH (Title VII). If the producer can demonstrate "adequate control" of (chemicals of very high concern, he/she can continue to produce them. In our opinion this will not protect women's health as it does not solve the basic problem to reduce our dependency on hazardous chemicals. Women and children will continue to be exposed to them in consumer products. Incentive needs to be given to the European chemicals industry to look for safer alternatives. Dangerous chemicals need to be substituted by safer alternatives.

2. REACH will close the information gap that has existed for over 50 years and give women more security with the products they buy

Most of the 100.000 chemicals on the European market are not approved by any authority. Every car has to undergo safety tests before it can be sold and food stuffs need to be assessed for their quality before they can be put on the supermarket shelves. This is not the case with chemicals. This is especially worrying as we are exposed to them on a daily basis as already mentioned. Chemical production worldwide and in the EU has risen exponentially since the 1930s yet the information that we have currently on substances is only a fraction of what we need.

About 30.000 chemicals are produced in quantities above one tonne per manufacturer and only these will be regulated under REACH. Ninety-five percent of these substances are on the market with little or no environmental or health safety data, and a minority of these will be chemicals of high concern.

REACH will include all these chemicals in one coherent system in which they have to be registered with provision of information and evaluated for their health and environment hazards. This means that under REACH, women (and citizens) in Europe as well as producers, downstream users and

² Dorey, Catherine N., PhD, *Chemical Legacy- Contamination of the Child*, Greenpeace UK Report, 2003

³ Darbre, P. D., Aljarrah, A., Miller, W. R., Coldham, N. G., Sauer, M. J., and Pope, G. S., *Concentrations of Parabens in Human Breast Tumors*, *Journal of Applied Toxicology*, January 2004: (24), pp. 5-13.

authorities will actually know for the first time ever of chemicals that are produced in Europe. This will be to the benefit of everyone involved but especially to women as it will provide this group with much more *security* with respect to their role as consumers and decision-makers in the family and with regard to the content of the products they buy. REACH needs to eliminate the most hazardous chemicals.

3. REACH will protect the health of our families and our reproductive health

Children are especially affected by the negative effects of chemicals due to their body weight in relation to food consumption. Women pass on some of their chemical body burden to their children during pregnancy, through the placenta and the blood to the embryo. After birth, chemicals exposure continues through breast milk, and also through environmental exposure⁴.

Researchers have noted that chemicals may cause adverse health effects in children at much lower levels than previously thought. These include chemicals harming the prenatal development of the child's central nervous system, the immune system and the reproductive system. Furthermore, these effects only become visible once the child has reached puberty or adulthood: they can result in learning disabilities, allergies, asthma and even childhood cancer.

With regard to women's occupational health it is estimated that we only know the effects of little more than 30% of high-volume chemicals (those produced over 1,000 tonnes per manufacturer) on the development of the child in the womb. For example, Women who are employed in the solvents industry are giving birth to children with lower IQ. Parabens have been proven to affect male fertility as they contribute to a lower sperm count, making it more difficult for parents- to-be to conceive . Bisphenol-A has been connected in a recent study with prostate cancer.⁵

REACH will clearly close the information gap that is necessary to assess adverse health effects of chemicals for men, but especially for children. We really find it unacceptable that children are not able to start their life in an "unpolluted" world.

4. More information about chemicals and fewer dangerous chemicals on the EU market will contribute to a healthier environment and thus a healthier life.

Many *chemicals of very high concern* have been detected in the environment in polar bears, in fish, in ocean sediments and in the air we breathe for the last 20-30 years. They are released from consumer products or from production processes into the air., Persistent chemicals travel long distances through the atmosphere, or end up in sewage and groundwater and finally in the environment where they can live on for tens of years and longer. The fewer of these chemicals end up in the environment, they fewer will end up in the human body. (For example cod fish in the Baltic and North Sea (what stocks are left) is highly contaminated with dangerous chemicals).

⁴ The benefits of breastfeeding outweigh the risk from chemicals exposure; see also the joint FAQ: Towards a healthy environment for children. <http://www.waba.org.my/FAQ%20Oct2003-10.pdf>

⁵ Yelena B. Wetherill, Nicola L. Fisher, Ann Staubach, Mark Danielsen, Ralph W. de Vere White, and Karen E. Knudsen, *Xenoestrogen Action in Prostate Cancer: Pleiotropic Effects Dependent on Androgen Receptor Status*, *Cancer Res.* 2005 65: 54-65.