Chemical Crisis briefing

Chemicals in our lives

From the moment we are conceived, to the moment we die, we are in contact with chemicals. In the water and food we consume, in the magazines we read, in the washing powder we use, through to the mattresses we sleep on, all of the products and goods that we use contain synthetic chemical substances.

As our use of chemicals has increased, so has evidence that some of these chemicals are harmful to the environment and to human and animal health. Not all man-made chemicals are harmful, but some can cause immediate reactions such as skin allergies and asthma. Worryingly, research is starting to suggest that exposure to man-made chemicals can have serious long-term effects depending on when we are exposed to them and for how long.

Increasing concern about chemical use

Greenpeace has been concerned for many years about a group of chemicals called Persistent Organic Pollutants or POPs. Scientific research has shown that some of these compounds are capable of damaging the nervous system. Others may increase the risk of cancer, affect the hormone system, reduce fertility and cause growth disorders in children. Many of these substances are bioaccumulative – this means that they build up in the body's fat. So once we've been exposed to such chemicals, we carry them in our body tissue for many years. Some research has suggested that our bodies are now be contaminated with up to 300 man-made chemicals.

The effect of these chemicals on unborn and very young children is of particular concern. Contaminated breast and formula milks may expose very young babies to chemicals. Some chemicals can pass from the mother to the unborn baby. Babies and children are far more susceptible to the effects of chemicals than adults.

In plain English:

Persistant chemicals once in our bodies or the environment either breakdown very slowly or not at all

Bioaccumulation is the build up of persistent chemicals in human or animal body fat.

Endocrine disruptors are those chemicals which adversely effect our hormonal systems.

Hazardous chemicals are persistent, bioaccumulative toxics

Chemicals Out of Control

When dangerous chemical substances are used in everyday products, it is nearly impossible to prevent them ending up in unintended places. Persistent chemicals in toiletries, electrical equipment, furniture and many other products can end up being absorbed into our bodies through direct contact. And they collect in house dust, which can then contaminate people, animals and the wider environment.

Hazardous chemicals are not as well regulated as we might expect. Although the European Union is the largest chemical producing region in the world, we know almost nothing about the hazards posed by most of the chemicals being manufactured and marketed - characteristics such as environmental persistence, toxicity and effects on human health.

It is estimated that there are as many as 100,000 existing chemicals most of which have hardly been assessed at all. Many new substances currently on the market are now considered to be harmful.

Chemicals regulation in Europe, and beyond, is in need of fundamental, far-reaching reform.

The European Solution

The good news is that a serious attempt to sort out the chaos of chemicals regulation is being made by the European Commission. In February 2001, it published a draft proposal which aims to bring chemicals produced and sold in Europe under one system of regulation called REACH (Registration, Evaluation and Authorisation of Chemicals). The legislation is a strong step in the right direction.

The Threat from Industry

The EU is under pressure to weaken the new legislation. Greenpeace needs your help to make sure some key principles are included in the new laws. Help us to protect you, your children and the environment. Contact the campaign (details below) for more information about how you can make a difference.

The way ahead

There is one key provision which the legislation must contain in order to be effective – the principle of mandatory substitution. If included in the legislation, this and other measures would amount to a reversal of the 'burden of proof'. Companies would have to demonstrate their product is safe, rather than governments or groups like Greenpeace trying to demonstrate harmful effects after release.

The one essential ingredient of good chemical legislation is:

The Substitution Principle: If a company wants to make a chemical that has hazardous properties, it must first show that there is no safer alternative and that there is a real need to continue production. If a hazardous chemical is authorised, it must be on a time-limited basis and there should be a legal requirement to develop alternatives.

Other key elements needed to make strong legislation include:

- **No data. No Market**: If chemical manufacturers cannot provide the relevant basic data on a chemical they should not be allowed to sell it.

- **Regulation based on chemical properties, NOT risk**: deciding on how to regulate a chemical should be based on the chemical itself, for example whether it is persistent or bioaccumulative. Regulation should *not* be based on the concept of 'acceptable risk' (that is trying to work out who will be accidentally exposed to the chemical, for how long and at what level) – a decision-making process that currently enables companies to place many hazardous chemicals on to the market.

- **Regulation based on assessment of chemical *groups* rather than individual substances**: many chemicals share certain characteristic- if one substance in a chemical group is shown to be toxic and therefore subject to certain use restrictions, unassessed substances which share similar properties should be subject to the same restrictions without having to be individually tested. This ensures a system of regulation that is fast and efficient.

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