

## ABOUT BISPHENOL A MYTHS & FACTS

### MYTH: “HUNDREDS OF STUDIES PROVE THAT BPA IS HARMFUL – BUT THEY ARE IGNORED”

**FACT:** These studies are not ignored; on the contrary, in their risk assessment of BPA the European authorities included more than 1000 studies. EFSA in its 2010 safety assessment of BPA-based food contact materials included more than 800 studies which had appeared since their last assessment in 2008. This naturally included a large number of small or exploratory studies, many of which claim to observe a negative effect. Taking into consideration quality criteria related to methodology, analysis, evaluation or reproducibility of studies, the authorities noted several methodological, statistical or other shortcomings in these studies. As the results of these shortcomings, the studies could not be reproduced and therefore they are not considered to have been validated. Authorities must always base their decisions on validated studies with assured quality. Regulators across the world consistently concluded that Bisphenol A (BPA) is safe by looking at the whole set of available scientific results on BPA.

### MYTH: “INDUSTRY-FINANCED STUDIES ARE BIASED AND SHOULD NOT BE THE BASIS FOR REGULATORY DECISIONS”

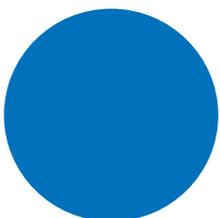
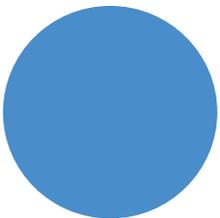
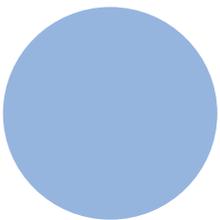
**FACT:** Under the European chemicals legislation REACH, the responsibility of providing scientific data about their products has been placed on the industry side. The Chemical industry is required by the European law to provide the necessary scientific data required by regulators to assess the safety features of chemical substances. Therefore, comprehensive quality-assessed studies under Good Laboratory Practices and respecting OECD guidelines are implemented; these also have to be paid for, of course. Requests to ignore these studies contradict the European legal regulations.

### MYTH: “BISPHENOL A IS A PLASTICISER / AN ADDITIVE”

**FACT:** Bisphenol A (BPA) is not used as a plasticiser or as an additive in plastics; it is an intermediate used in the manufacture of either polycarbonate plastic or epoxy resins. More than 99% of BPA is converted into polymers including polycarbonate plastic and epoxy resins. During the polymerization process BPA becomes these materials; they could not be produced without BPA. Only a very small amount of BPA is used as an essential antioxidant in soft PVC plastics or as a developing agent for thermal paper.

### MYTH: “BISPHENOL A IS HARMFUL TO HUMANS AT LOW DOSES”

**FACT:** Studies supporting the low dose theory have repeatedly been judged by independent regulators as unreliable for use in human risk assessment. None of the studies claiming such





effects could be reproduced by other scientist teams. Several comprehensive studies that also investigated the question of potential effects of very small levels of BPA on the metabolism and looked at several generations, did not find any such effect. However, numerous studies show that the level of migration, if any, is far below any safety-based standards set by government bodies such as the European Food Safety Authority (EFSA) or the U.S. Food and Drug Administration (FDA), and such exposure poses no known health risk. The low dose theory has repeatedly been judged by independent regulators as both unreliable and unconvincing.

#### MYTH: "POLYCARBONATE CONTAINERS OR EPOXY COATED CANS LEACH HIGH LEVELS OF BISPHENOL A INTO FOOD"

**FACT:** Bisphenol A (BPA) does not migrate into food like powder off a surface, as some suggest. In fact, during the production of polycarbonate plastic or epoxy resins, the BPA molecules are firmly bound to one another and are incorporated into the polymeric structure of the plastic itself. As with many other materials, there is some potential for extremely small amounts of BPA to migrate. However, numerous studies show that the level of migration is far below any safety-based standards set by government bodies such as the European Food Safety Authority (EFSA) or the U.S. Food and Drug Administration (FDA), and such exposure poses no known health risk. In fact, as stated by EFSA, "after exposure to BPA the human body rapidly metabolises and eliminates the substance". EFSA explicitly considered newborns and small children in their assessment.

#### MYTH: "BISPHENOL A IS AN ENDOCRINE OR HORMONE DISRUPTOR"

**FACT:** Bisphenol A (BPA) does not fulfil the scientific definition of an endocrine disruptor. BPA was not specifically synthesized to be used as a hormone, but was screened together with many other substances in the 1930s and failed to show relevant potency. Like many naturally-occurring substances (phytoestrogens) in everyday foodstuffs such as carrots, soy beans or other vegetables, BPA shows very weak, estrogen-like effects, and only at extremely high levels. Such levels can realistically never be reached in daily life.

#### MYTH: "BASICALLY, ANY ALTERNATIVE IS BETTER THAN BISPHENOL A- BASED MATERIAL IN FOOD CONTACT"

**FACT:** This suggestion is a very dangerous one. It wrongly indicates that there are equally well-suited, well-tested, well-understood and technically viable alternatives to simply allow for replacement by another material. This is not the case: extensive toxicological safety studies have to be done; independent authorities have to assess materials; producers and food companies have to test the behaviour of the material in their processes and packaging over a realistic period of product life, and under varying use scenarios. As the Swiss Health Authority stated: "A ban on BPA would inevitably cause manufactures of packaging and consumer products [food contact materials] to have to switch to other substances, the toxicity of which is less well known. This would mean a well characterised risk would be replaced with a conspicuously unpredictable risk."

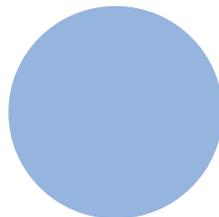
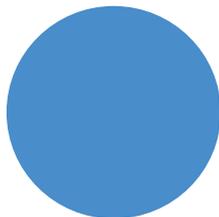
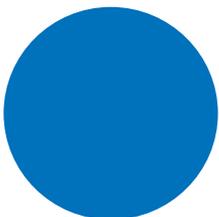
More information on BPA is available at the following Web sites:

EFSA:  
[www.efsa.europa.eu/en/topics/topic/bisphenol.htm](http://www.efsa.europa.eu/en/topics/topic/bisphenol.htm)

PlasticsEurope:  
[www.bisphenol-A-Europe.org](http://www.bisphenol-A-Europe.org)

Or by contacting:

Jasmin Bird  
Polycarbonate/Bisphenol-A  
Group PlasticsEurope  
Email:  
[jasmin.bird@plasticseurope.org](mailto:jasmin.bird@plasticseurope.org)



Disclaimer: This information is supplied in good faith by the PC/BPA Industry Group of Plastics Europe, and is based on the best information currently available. While every effort has been made to ensure its accuracy, the PC/BPA Group does not accept liability for loss or damage, howsoever caused, arising from the use of the information.