



## AFN ENVIRONMENTAL STEWARDSHIP

RESPECTING AND PROTECTING MOTHER EARTH

# BISPHENOL-A

**Attached is a Government of Canada fact sheet on the use of plastic baby bottles.**

Although this fact sheet, taken from the Government of Canada's "Chemical Substances" website, provides information on the use of plastic baby bottles, current information on Bisphenol-A (also known as "BPA") suggests that a precautionary approach be taken. To be safe, we suggest using glass bottles and containers, and recommend that, if possible, no plastics be used to heat food or beverages in a microwave. This precautionary approach applies not only to infants and children but to pregnant women and women who are breast feeding, as many chemicals can easily be transferred from mother to child, in the womb or via breast milk.

For further information on Bisphenol-A, please contact AFN's Environmental Stewardship Unit.

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## Bisphenol A

### Fact Sheet<sup>1</sup>

Bisphenol A (BPA) is an industrial chemical used to make a hard, clear plastic known as polycarbonate, which is used in many consumer products, including reusable water bottles and baby bottles. Bisphenol A is also found in epoxy resins, which act as a protective lining on the inside of metal-based food and beverage cans.

### **The Government of Canada is Taking Action**

Canada is the first country in the world to take action on bisphenol A, thanks to our Chemicals Management Plan. This Plan was introduced in 2006 to review the safety of widely-used chemicals that have been in the marketplace for many years, and to update our knowledge and understanding of these chemicals. Based on recent advances in science, we are now aware of potentially harmful effects we could not detect before.

### **Health Concerns**

The current research tells us the general public needs not be concerned. In general, most Canadians are exposed to very low levels of bisphenol A, therefore, it does not pose a health risk.

Our focus now is on the health of newborns and infants under 18 months. Science tells us that exposure levels are below those that could cause health effects; however, due to the uncertainty raised in some studies relating to the potential effects of low levels of bisphenol A, the Government of Canada is taking action to enhance the protection of infants and young children.

Studies have shown the main sources of exposure for newborns and infants are from bisphenol A migrating from the lining of cans into liquid infant formula and migrating from the polycarbonate baby bottles into the liquid inside following the addition of boiling water.

Therefore, the Government of Canada will continue to ensure that levels of BPA in infant formula are kept at the lowest levels achievable by carefully reviewing pre-market submissions of infant formula and continuing to work with the food packaging industry to reduce levels of BPA in infant formula to the lowest levels possible. We will also evaluate alternatives to BPA for infant formula can linings on a priority basis.

The Government of Canada is also moving forward with legislation to ban the importation, sale and advertising of polycarbonate baby bottles.

### **Environmental Concerns**

Science shows that bisphenol A is entering the environment through wastewaters, washing residues and has been found in some leachate from landfills. It also breaks down slowly in the environment when there is a lack of oxygen. The combination of the slow break down of bisphenol A and its wide use in Canada means that over time, this chemical could build up in our waters and harm fish and other organisms.

As a precautionary measure, Environment Canada is considering a regulation that would set a limit for the maximum concentration of bisphenol A that can be released in effluent to the environment. The regulation would also require facilities using bisphenol A to implement best management practices to ensure that it is handled and disposed of safely. These actions will keep the levels of bisphenol A being released to the environment at safe concentrations for fish and other aquatic life.

### **Advice for Canadians**

Bisphenol A does not pose a risk to the general population, including adults, teenagers and children. Consumers can continue to use polycarbonate water bottles and consume canned foods and beverages, as the level of exposure from these products is very low.

As well, consumers can continue to use tableware and storage containers made of polycarbonate. If Canadians are concerned about migration of bisphenol A into food as a result of heating in these containers, alternatives, such as those made of glass, are readily available. Other products containing BPA, including sports equipment, do not pose a threat to the health of Canadians.

### **Advice for Parents and Caregivers**

- If you continue to use polycarbonate baby bottles, it is recommended that parents and caregivers do not put very hot/boiling water in them, as very hot water causes bisphenol A to migrate out of the bottle at a much higher rate.
- Water should be boiled and allowed to cool to lukewarm in a non-polycarbonate container before transferring to baby bottles. This advice is consistent with proper instructions for the preparation of infant formula.

- These bottles can be sterilized according to instructions on infant formula labels and can be cleaned in the dishwasher. They should be left to cool to room temperature before adding the infant formula.
- Baby bottles should not be heated in the microwave as the liquid may heat unevenly and can cause burns to your infant.
- Health Canada recommends that breast milk is the best food for optimal growth in newborns and infants. Exclusive breastfeeding is recommended for the first six months of life for healthy term infants with continued breastfeeding for up to two years and beyond.
- If breastfeeding is not chosen, from a nutritional perspective, canned infant formula would be considered the next best choice.
- If you are unsure as to whether your bottles are polycarbonate, check to see if the bottom of the bottle has the number 7 in the centre of the recycling symbol. Although the number 7 is a broad category, you can only be sure it is polycarbonate if the number 7 also has a PC beside it. If the bottle does not have a recycling symbol, there is no certain means of identifying whether it is made from polycarbonate or not.
- If parents and caregivers are still concerned about using polycarbonate baby bottles, there are a number of alternative options.

#### REFERENCES

1. Government of Canada. *Bisphenol A (Fact Sheet)*. 17 Oct. 2008 [cited 15 Jan. 2009]; Available from: [http://www.chemicalsubstanceschimiques.gc.ca/challenge-defi/bisphenol-a\\_fs-fr\\_e.html](http://www.chemicalsubstanceschimiques.gc.ca/challenge-defi/bisphenol-a_fs-fr_e.html).