

CHECK YOUR WATER BOTTLES!

The memo on the pages that follow serve as a brief regarding the safety of plastic water bottles. Major health concerns are tied to certain plastic water bottles. Read the memo that follows this cover page and check your water bottles.

To: Tory Henderson, Boise
From: Joe Domitrovich, MTDC
Date: May 5, 2008
Re: Water Bottle Safety

We have been contacted recently regarding the safety of wildland water bottles (USDA Forest Service specification 5100-84B, Canteen, Water Polyethylene, 1-Quart).

Concerns were on health risks regarding bisphenol-A.

The current specifications require construction from a high density polyethylene (HDPE) and not polycarbonate plastic that contains bisphenol-A (BPA). There is no current evidence for adverse health effects from containers produced from HDPE. These containers are not the “hard” plastic used in Nalgene bottles, milk cartons are another example of HDPE plastic.

However, personal water containers being used by firefighters include Nalgene Bottles and Camelbak-type systems. Nalgene bottles are produced from polycarbonate plastics while Camelbaks are made from polyethylene, which does contain bisphenol-A. Research on human health effects from bisphenol-A in polycarbonate plastics is limited.

Recommendations from the National Toxicology Program Brief on bisphenol-A (April 2008) where there is some concern for children and fetuses at current exposure levels, but minimal concern for adults. They recommended in the brief further research.

Single-use water bottles are common on fires. They are produced from polyethylene terephthalate (PET). The FDA has determined that PET is acceptable to use. A study by the International Life Sciences Institute found PET to be biologically inert if ingested. There is no evidence of PET toxicity in feeding studies using animals.

One current alternative presented to us was the use of stainless steel canteens to replace the current plastic water bottle. The water bottle now issued to Forest Service Firefighters does not have health issues, there would appear to be no need to change. Companies such as Nalgene (Nalgene Nunc International) are also removing products from production that contain bisphenol-A as of April 2008. I recommend keeping the current issue water bottle and monitoring research on the topic of personal water containers and possible health effects.