

## **Questionable Press Reports on Antimony and Plastic Bottles**

Recently there have been many reports in the press on a substance called antimony and how it might affect humans. This effect has been linked to plastic bottles that are used for holding all kinds of drinks.

When reading news articles perhaps the first question a person should ask is, are these reports a true and accurate representation of the facts? In this case, of the use of antimony in plastic bottles?

A second question might be, do the articles consider why and how antimony is used in the world today.

### **In musing the first question we should ask what information is available to help us**

When this web report was written, since July 27<sup>th</sup> 2005 at least 22 articles had been published on this subject. One common thread through all of these articles is that the authors failed to contact either the manufacturers of antimony compounds or the manufacturers of the plastic used for making the bottles. This seems to me to a very strange situation; surely reporters have a public responsibility to at least try to get the facts even if they choose not to report them. In another common thread all of the articles seem to have the same theme, possibly they are sharing their work; shouldn't they be producing their own, independent, verified work? Authors certainly demand it in areas outside of journalism such as schools and colleges.

Possibly, more because editors require scare stories than because they want to hear good news, reporters tend to exaggerate parts of stories and to down play other parts of the story. This was reflected in the way that Professor Shotyk's work was interpreted. Professor Shotyk is an excellent geochemist working at the cutting edge of technology; however, he is neither a toxicologist, a polymer chemist nor manufacturer of antimony or plastics. His comments on these subjects, whilst seemingly valid, were accepted as the truth; should they have been checked before being used? Did editors insist this happen? Please judge for yourself.

Professors Shotyk's paper clearly stated that at no time did the levels of antimony he found rise above the safe limits set by World and Governmental organisations. Why was that not reported in all the articles?

It is true that some of the articles did try to tell most of the story, but all of them were biased toward scare-mongering and the risk to the public when they used plastic bottles which contained antimony.

I mentioned a second question to consider. Why and how is antimony used in the world today? None of the published articles on antimony below truly reflect the use of antimony and they failed to report the benefits (or downside) of plastic bottles to the health and safety of the public at large. A thought I had was why do we use so much of the stuff if there is a problem with it? Perhaps there is no problem?

For the reader I suggest you ask the real experts by consulting the International Antimony Oxide Industry Association ([www.iaoia.org](http://www.iaoia.org))

and/or the Association of plastics Manufacturers in Europe ([www.plasticseurope.org](http://www.plasticseurope.org))

There are also other related websites of the manufacturing and use organisations. It's really easy to find factual information that is unbiased and correctly reported. Any independent thinker or reporter could of course do this.

### **Back to the main issue - Is there a risk in using plastic bottles?**

First let us find out about the plastic then about why antimony is in the plastic and then what the health experts think.

The plastic referred to in the articles is poly ethylene terephthalate – generally abbreviated to PET. It is made using chemicals called monomers and these originate from oil. To make PET which is called a polymer, lots of monomer pieces are joined together to form a series of long chains. The two monomers mainly used to make PET are terephthalic acid and ethylene glycol and if you need more information on these please go to the PlasticsEurope website. Some chemicals called catalysts are used to help to make the monomers join up into a chain; antimony compounds are the most common catalysts for PET. Other catalysts can help make PET monomers join up but are generally not as good as antimony.

In the world today we are all concerned about health and the safe use of all sorts of materials. For PET before it is used for drinks and other types of food packaging we must make sure it is safe. In Europe there are a group of experts called toxicologists who look at evidence produced by anybody who would like to use chemicals for making plastics for packaging. These experts are very good and represent all of the governments (the people) in Europe. When they have examined the evidence they give an opinion on whether it is safe to use the chemicals to make plastics. In the case of PET they have told the manufacturers what they must do to keep PET safe for use for the whole lifetime of a person. In the USA similar experts have said that PET and the chemicals used to make it are safe. Another world wide expert group, the World Health Organisation, also looked at antimony levels in drinking water and set what is known as a guideline value (safe limit). There are also other governments around the world who have taken a similar stance on the safety of PET. It is possible to obtain more information from the internet sites of the US Food and Drug Administration, the World Health Organisation and the European Food Safety Authority.

If antimony and PET have been demonstrated to be safe by real experts from all around the world, why was it reported by non experts as being unsafe? Is this kind of scare mongering acceptable or responsible behaviour?