ADDRESSING THE ALUMINUM ISSUE IN DETOXIFICANT (BENTONITE, MONTMORILLONITE)

The bentonite we use, known as Sodium Bentonite, is a high purity, air-floated bentonite consisting of micronized particles. Bentonite is one of the volcanic ashes, such as kaolin, montmorillonite and Fuller's earth. It is not a drug or a chemical composition made in a laboratory. It is a product of the earth which does contain a small amount of aluminum as well as 25 - 35 other trace minerals.

The Random House College Dictionary describes bentonite rock as "a clay formed by the decomposition of volcanic ash." It describes clay as "consisting essentially of hydrated silicates of aluminum. Regarded as the material from which the human body was formed."

The company from which we purchase the Sodium Bentonite, which contains Hydrous Aluminum (Al_2O_3) Silicate, says that, "it is very complex in structure and (the aluminum) is actually part of the bentonite crystal and **not leachable** by any means." (Technical Data Sheet)

This is due to the fact that the aluminum element is central to the montmorillonite molecule - holding the negative charge around it as a cloud of oxygen molecules. In effect, part of the negative charge of montmorillonite is attributed to the aluminum. Removal of the aluminum from the montmorillonite molecule would result in a loss of the drawing properties of the molecule. Our bodies do not have sufficient digestive juices to split apart such a highly negatively-charged molecule. As the Technical Data Sheet explains, the aluminum is *not leachable by any means*.

The natural bentonite rock that is used in manufacturing our Detoxificant product is separated from the dirt and other residues which could amount to 5-10% of the non-clay impurities. We then take bentonite rock through a secret process which *extracts the hydrated montmorillonite*. Montmorillonite is one very specific clay within the clay group and this is what we use in our Detoxificant product. This is the specific clay that holds the extreme drawing powers. Any dirt or mica left in a hydrated bentonite solution decreases the efficacy with which montmorillonite adheres positively charged toxins, bacteria, viruses, pesticides, and other substances. That is why we remove such extraneous matter and leave only the purified montmorillonite.

If one looks under a high power microscope, montmorillonite is seen as extremely minute rectangular particles similar in shape to a credit card.

America's outstanding authority on montmorillonite claims its action is due to five characteristics:

First: It has large and varied mineral content.

Second: It has a negative electrical attraction for positively charged particles. In the human body much of the toxic poisons are positively charged.

Third: Its particles, being shaped like a "credit card" with the wide surfaces negative and the edges of the card positive, have many times more negative than positive pulling power.

Fourth: The very minuteness of the particles of montmorillonite gives a large surface area in proportion to the volume used, thus enabling it to pick up many times its own weight in positively charged particles.

Fifth: To obtain maximum effectiveness in the human body, it must be put in a liquid colloidal - gel state. In such a state, the montmorillonite swells and increases its surface area. In fact, if a person were to spread one tablespoon of our Detoxificant onto a football field, a person could not poke a needle into the ground without touching some montmorillonite. That illustration describes the minute structure and extremely large surface area of our Detoxificant product.

Note: Upon being asked about aluminum toxicity from bentonite, America's authority on the subject stated, "Not very likely, the aluminum in solution from the clay, even in acid pH, is going to be less than 0.1 ppm." For a comparison value, the government limits for heavy metals, such as lead, in U.S. Pharmacopeia grade foodstuffs is 5.0 ppm, or 50 times the amount of aluminum present in bentonite.

There are many products on the market that use bentonite in the raw and unprocessed manner that would make one skeptical about using them. Some may profess to use an air-purified bentonite clay - which is already done by the original mining companies to produce different grades of clay. In making our Detoxificant however, although we do start out using the same air-purified bentonite clay, we remove the dirt, mica, and other impurities - leaving only the active constituent, montmorillonite. Check the label of your Bentonite products to see if it states "Bentonite" or "Montmorillonite." If it states the latter, you can be sure that you're getting a purified, actively drawing substance.

We feel that one does take in or consume some aluminum every day and it can be absorbed and accumulated in the body. Free aluminum is a positively charged toxin and therefore it has to be taken out of the body. Through our research we have found our Detoxificant is one of the best adsorbents of toxins one can use. The Montmorillonite clings to the toxins and eliminates the poisons in the natural way. There is no evidence to show it has any chemical effect on the body. Its action seems to be purely physical.

Detoxificant has been used to eliminate environmental toxins from the bloodstream, such as lead, pesticides, and chemicals in foods. Detoxificant is not a new product, it has been on the market since 1946. People have been using volcanic ash going way back to the primitive tribes of various continents for conditions of toxicity, but they were using Bentonite clay in its raw form.

So it boils down to this: The Montmorillonite used in our Detoxificant may have small amounts of Hydrous Aluminum Silicate. If one tried to extract the hydrous aluminum from the crystal, he would have to heat the clay to 1100^{o}C or over, or use very strong acid - much stronger than that produced by the body. Really, then, the aluminum in the Detoxificant and the aluminum used in cooking utensils and other preparations are very different and would be like comparing apples and oranges.

We, and many researchers and world-renowned authorities on bentonite, feel that Detoxificant is a very safe and time-tested product and we hope you will continue to use it.