



Living Gluten-Free
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Gluten in Adhesives?

Recently I was asked about adhesives used on stickers (the type children play with) and whether they might contain wheat. Unfortunately there is a lot of misinformation floating around stating that adhesives on stickers, stamps, and envelopes often contain wheat starch. There are even claims out there stating that self-adhesive varieties of these products are harmful because they contain gluten and gluten is absorbed into the skin.

Bottom line: You really should not be concerned about gluten in adhesives used on stamps, envelopes, and stickers. Here's why...

First of all, there is no reason to believe that gluten is absorbed through the skin. As I wrote in *Gluten in Personal Care Products: A Need to Worry?* posted on July 14, 2009,

"There is no scientific evidence that the use of gluten-containing products that are not ingested is harmful to persons with celiac disease. This includes individuals with dermatitis herpetiformis.

According to Dr. Alessio Fasano, Medical Director of the Center for Celiac Research, University of Maryland, "If you have celiac disease, then the application of gluten containing products to the skin should not be a problem, unless you have skin lesions that allow gluten to be absorbed systemically in great quantities.

The reason why this should not be a problem is that, based on what we know right now, it is the oral ingestion of gluten that activates the immunological cascades leading to the autoimmune process typical of celiac disease."

There aren't too many individuals on the planet who know more about celiac disease than Dr. Fasano, so please, do not let anyone, including medical professionals convince you that gluten protein can be absorbed through the

skin and cause a celiac disease reaction. It simply isn't true."

So, if you are using self-adhesive stickers, self-adhesive stamps, or self-adhesive envelopes there really is no need to worry about whether they contain wheat starch. You don't have to lick them and if there is any wheat starch in the product, it will not be absorbed through the skin. If you are worried anyway, simply wash your hands after handling these products. When it comes to stickers, stamps, and envelopes that require moistening, there also is no need to worry. Don't lick them! Use water instead of saliva to moisten them.

BUT, if you still want to know whether these products contain wheat starch, read on...

A little background on adhesives

For everything you ever wanted to know about adhesives, visit the website of H.B. Fuller, a global adhesives company (www.hbfuller.com). According to their website, there are many different classes of adhesives including hot melt, water-based, reactive chemistries, and solvent-based. The class of adhesives that is of interest to those on a gluten-free diet is the water-based adhesives. The water-based natural polymer adhesives may be made from dextrin and starch.

According to the H.B. Fuller website, "Starch-based adhesives are made from natural polymers derived from roots, tubers and seeds of higher plants such as maize, potatoes, wheat, rice and tapioca." Uses for starch-based adhesives include, paper products, labeling and envelopes, and book binding.

So, starch-based adhesives can be made from wheat starch but in reality how often does this occur?

Here's what I found...

United States Postal Service

When I spoke to a customer service representative at the US Postal Service, I was told that corn starch is used in stamp production, not wheat starch.

Envelope Manufacturers Association

The frequently asked questions page of the website of the Envelope Manufacturers Association www.envelope.org/page/6692/ states the following:

*Is there Gluten in envelope adhesives?
Remoistenable adhesives are derived from corn starch and do not contain wheat or rye gluten.*

National Starch

According to a company representative from the starch biomaterials division of National Starch, corn starch is most often used in the adhesives on stamps, envelopes, and stickers. The representative I contacted was not aware of wheat starch being used in these applications.

H.B. Fuller

According to a company representative, pressure sensitive adhesives (i.e., self-adhesives) are made from synthetic polymers versus starch and therefore do not contain gluten. Adhesives that require moisture, such as lickable stickers and envelopes are made from dextrin. Most of the time the dextrin is corn or potato-based, not wheat-based.

Thank you to the US Postal Service, National Starch, and H.B. Fuller who returned my emails and phone calls. It really is best to go directly to the source for accurate information!

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