



Insulated Vinyl Lunch Bags

Well -- well, how one thing leads to another. I started grabbing bits and pieces of a great piece from Prevention on the **15 Worst Things YOU Can Put in Your Lunch Box/Bag**, on page **38 Volume 3**— really important info for all busy ladies who want to eat well and stay healthy.

On the list -- the hazards of vinyl lunch coolers. They recommend using a **vinyl-free** insulated lunch bag. Didn't know there was such a thing. This search lead me to LL Bean but the description was unclear so I sent an email, asking for clarification. Here is what I got back from LL Bean.

- Main fabric: 420 denier nylon fabric with polyurethane coating on reverse.
- Lining **EVA**. Bean's requirement is that **this material does not include lead, PVC or phthalates. Independent testing shows no detectable levels of these chemicals.**
- Shoulder strap: 1" Nylon webbing, removable, attaches with swivel clips.
- Foam: Polyethylene foam insulation.
- Pockets: 1 front outside mesh pouch pocket.
- Handle: Rubber on 1/2" nylon web
- 1 inside mesh pouch pocket, hook and loop closure.
- Zipper: Nylon coil.
- Zipper pulls: Nylon.
- Hardware: Plastic.

To
YOUR
Good Health

Ok what is **EVA**?

I found EVA to be **ethylene vinyl acetate (EVA)**, used in films, wire coating and adhesives.

Some of the non-chlorinated vinyl(s) (**EVA**, PEVA, PVA and PVB) are now beginning to be used as direct substitutes for PVC. EVA has been in use for several years as a **chlorine free** substitute for PVC – primarily in non-building materials like toys and athletic shoes, but occasionally as a protective film or binder.

So it is a bit misleading as it is NOT vinyl-free but rather uses a slightly less toxic vinyl. The jury is still out on EVA but at this point in time I think the investment of \$25 for a safer lunch tote will give me a little peace of mind. You might find EVA lined coolers cheaper but LL Bean is a name I trust.

As you can see this search lead me to a whole new article on the various kinds of vinyl. Read on and you'll find that **Vinyl Can Be Fatal**. This new information on fluoride was at the bottom of the Vinyl report and is certainly worth repeating here:

Fluorine and bromine belong to the halogen family of elements along with **chlorine**. Many environmental health researchers are concerned that fluorinated and brominated compounds will turn out to be even **worse** than chlorinated polymers, such as **PVC**. For more see the sidebar on an Environmental Building News article, Healthy Building Network (April 28, 2005 a reputable organization, suggests avoiding all brominated or fluorinated and chlorinated compounds wherever possible.

Sorting out the Vinyl(s) When is “Vinyl” not PVC?

Vinyl is commonly used as a shorthand name for **polyvinyl chloride (PVC)** plastic as used in a range of products from flooring to siding to wall covering. Most commonly, when a product is referred to as “vinyl,” it is comprised primarily of **PVC**. Occasionally it also may refer to polyvinylidene chloride (PVDC) a closely related compound, used in food wraps (‘Saran’) and other films, that shares most of the same environmental health problems.

In chemistry, however, the term “vinyl” actually has a broader meaning, encompassing a range of different thermoplastic chemical compounds derived from ethylene. In addition to **PVC**, “vinyl(s)” in building materials also include:

- ethylene vinyl acetate (EVA), used in films, wire coating and adhesives
- polyethylene vinyl acetate (PEVA) a copolymer of polyethylene and EVA used in **shower curtains**, body bags (*)
- polyvinyl acetate (PVA), used in paints and adhesives, such as white glue, and
- polyvinyl butyral (PVB), used in safety glass films.

What differentiates PVC from the other vinyl(s) is the addition of a chlorine molecule (**the chloride “C” in PVC and PVDC**). Chlorine is the source of many of the environmental health concerns with PVC, such as the generation of dioxin, a highly carcinogenic chemical produced in both the manufacture and disposal of **PVC**. Due to its persistent and bioaccumulative nature (it travels long distances without breaking down and concentrates as it moves up the food chain to humans) dioxin has become a global problem and an international treaty – the Stockholm Convention on persistent organic pollutants (POPs) - now prioritizes the elimination of processes that produce dioxin.

In the building industry, post-consumer recycled PVB is now beginning to be used to replace **PVC** in carpet backing. Absence of chlorine alone does not make these other vinyl(s) the final answer in the search for green polymers. There are still plenty of toxic challenges and

Vinyl *continued*

untested chemicals in the life cycle of any petrochemical product. As is the case with most other polymers competing with **PVC**, however, the weight of available evidence indicates that the absence of chlorine in the formula will generally render the lifecycle environmental health impacts of PVB and the other vinyl(s) less harmful than **PVC** and initial study is bearing this out. Like the polyolefin plastics, the use of PVB and the other non-chlorinated vinyl(s) represents a step forward in the search for alternatives to **PVC**.

In summary, with the exception of paints, glues and certain films, “vinyl” as a product description almost always means made of **PVC**. The term vinyl in ethylene vinyl acetate (EVA), polyethylene vinyl acetate (PEVA), polyvinyl acetate (PVA), and polyvinyl butyral (PVB), however, does not refer to **PVC** and does not raise the same concerns associated with **chlorinated molecules like PVC**.

When in **doubt** about the use of the term “vinyl”, ask if it is **PVC**.

(*) I stopped using plastic shower curtains years ago. In my opinion this type of vinyl should ONLY be used for body bags. If you use any kind of vinyl shower curtain you are asking to be placed in a body bag. The fumes will destroy your lungs, cause asthma and much worse. Anyone who says the smell goes away is kidding themselves, It doesn't go away YOU just get use to it. COTTON shower curtains are readily available and much safer, especially for children.

Turns out yours truly is allergic to Latex. Which lead me on a search for Latex Free food handler gloves. I spent a lot of time on the Internet trying to find any kind of NON-latex glove. They are hard to find. When I found a pair I thought would work it turns out they contain **PVC** and I had an allergic reaction to them as well. So what is wrong with **PVC** and why have I highlighted it in **RED** at every opportunity? After all we use it EVERYDAY to deliver drinking water to our homes.

Ask a contractor — he/she will tell you that you CAN'T use **PVC** to deliver **HOT** water in your home or place of business. WHY????? You can use it to deliver **COLD** water but NOT HOT, why? Turns out **HOT** water releases the **TOXINS** in **PVC**. So my hot sweaty hands were releasing those toxins, which were being IMMEDIATELY absorbed into my skin (the body's largest organ). OUCH — no wonder I had an allergic reaction.

With that realization, I think it a good idea to check to see what the CDC (Center for Disease Control) had to say about **PVC**. YOU will want to read this lengthy report and maybe even save a copy for future reference. <http://www.atsdr.cdc.gov/phs/phs.asp?id=280&tid=51>.

NO more **PVC** for me. **Vinyl can be fatal.**