I recently visited a friend. Shall we say she is cuisine-ially challenged? Perhaps not so much challenged as uninterested. Certainly, she can differentiate a better meal from a plain meal, but preparing the former is neither a forte nor even an interest of hers.

On this recent visit, I offered to cook dinner. Not for reasons of self-preservation. No one leaves her table ill or hungry or even not sated; one just doesn’t leave with that feeling of having enjoyed the calories, the fats, the carbs.

I knew where the kitchen was. It was clean. It had all the parts: sink, stove, refrigerator, pots, pans, plates. But it was horrid. A frying pan with a base so thin that I could practically see the electric burner below. A knife so wonky (and I wouldn’t have believed it possible if I hadn’t seen it myself) that it couldn’t make a straight slice of a tomato, zucchini, or onion. No one could cook under those conditions.

By now, you are probably wondering: What has this to do with health and safety?

Without the proper tools, you simply can’t do what you need to do. Sure, I muddled through preparing the dinner without my beloved All-Clad saucier or a good, true, chef’s knife, but I couldn’t cook under conditions like those day in and day out.

And then it hit me. My friend simply can’t cook. Let me rephrase that. Even if she were inclined to cook, or needed to cook, and knew how to cook, she could not. Even if her spirit were willing, her kitchen is weak.

The same holds true for health and safety. If you don’t have a HEPA vacuum, how can you safely clean-up? What if you don’t have a disposal container in which to dump your yucky used swabs? If you don’t have a separate stash of cotton and swabs exclusively for spit cleaning, how can you know what you are putting in your mouth?
On another topic: Nerts.

The conservator with whom I apprenticed often talked about nerts - those things that do things - the opposite of inerts. Well, according to an article in Scientific American (“Secret ingredients: ‘inert’ compounds may be chemically active - and toxic” August 2003, pp. 22-23), the inerts are starting to look pretty nerty. The article by David J. Epstein discussed what are allowed to pass for inert ingredients in pesticide formulations.

Just how inert do you consider toluene? Well, under present rules it is not required to be listed as an ingredient in a pesticide formulation. This is because the Federal Insecticide, Fungicide, and Rodenticide Act only considers an ingredient active only if it is present to kill the pest. Toluene may be present to dissolve the active ingredient, so it doesn’t have to be disclosed.

Here is an example that sounds like lots of the stories on xenoestrogens I discussed in this column a few years ago: Researchers at Texas Tech found that the ubiquitous Round-Up herbicide caused a 90% decrease in the production of certain reproductive hormones in mice exposed to it. However when they exposed mice to the “active” ingredient in Round-Up, there was no decrease in hormone production. The cause? It was the inerts.

As usual, industry says they cannot disclose the composition of the inerts because they are trade secrets. Since 1987 the US Environmental Protection Agency (EPA) has required pesticide manufacturers to register all ingredients with them. The EPA has classified the ingredients into four groups (the full listing of the inerts can be found at http://www.epa.gov/opprd001/inerts/lists.html):

List 1 (“of toxicological concern”): There are eight ingredients on the list. Those familiar to conservators include: hexane, Cellosolve, phenol, and chlorobenzene. The presence of any of these inerts are flagged by the warning phrase: “This product contains the toxic inert ingredient (name of inert)” on the label.

List 2 (“potentially toxic”): This list contains over 90 compounds including many solvents we use (toluene, xylene, and all manner of petroleum distillates), benzotriazole, and nonylphenol (of estrogen mimic fame).

List 3 (“of unknown toxicity”): This list of approximately 2000 chemicals includes sodium abietate (one of our “resin soaps”), acetone, the amines we use in Carbopol gels, benzyl alcohol, and naphthalene. And lest you get too concerned, it also includes aloe vera gel, avocado oil, and burnt umber. (It’s an odd list, but really shows how little is known about so many ingredients.)

List 4 (“of minimal concern”): A list of over 1000 compounds and a humorous review of potential inerts that include most of the natural oils (e.g., linseed), paprika, thumbtacks, sugar, .... wait, did I say thumbtacks?

The “List 1” shrank dramatically when manufacturers were required to disclose those ingredients on labels. Many ingredients were formulated out of the pesticide rather than be fully tested and/or disclose their presence.

The Northwest Coalition for Alternatives to Pesticides (NCAP) has petitioned the EPA to require full disclosure of all inerts by pesticide manufacturers and has gone to court to force the EPA to recognize the petition. Personally, I think this would be a very good thing.

So, what do you suppose the MSDS for thumbtacks would look like? The LD50 (lethal dose, 50% kill) must be frightening.

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