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CBC MARKETPLACE: HOME » HOUSEHOLD CLEANERS

If you can't pronounce it, should you use it?

Reporter: Wendy Mesley; Producer: Gaelyne Leslie; Researcher: Louisa Jaslow

When Shawn Ellis tests the air in parts of a house where cleaners are stored, he is measuring volatile organic compounds (VOCs). His meter won't tell you how strong or harmful the chemical particles might be. It will provide clues as to how many particles there are.



*'How can we allow these to enter our household?'
Dr. Gideon Koren*

'Can always smell the cleaning products'

"You can always smell those cleaners even though they're all tightly sealed."

Everywhere the cleaning products are kept, the readings jump. The average home normally reads about 50 parts per billion.

We asked Ellis to test three products that are often advertised on television: Pledge, Clorox Wipes and Lysol Disinfecting Spray.

Pledge registered 273 ppb. Anything over 500 could be a problem for people with sensitivities.

The Clorox Wipes came in at more than 1,000 ppb. The Lysol Disinfecting Spray was much higher — around 1,200 parts per **million**, or 1,000 times higher than the Clorox.

We live in an increasingly chemical society: experts don't know how dangerous these chemicals might be, but they are starting to worry. Dr. Gideon Koren is a paediatrician at the Hospital for Sick Children in Toronto.

"How can we, as one of the most advanced countries in the world allow these to enter our household for small children, without the appropriate testing to see that it's safe?"

Young children especially vulnerable

Koren says young children are especially vulnerable, partly because of exposure. Everything goes in their mouths and they virtually live on the floor. And young kids are more sensitive because they are still developing the basic body systems: the brain, internal organs, respiratory and immune systems are not fully developed until adolescence.

Koren and his researcher are studying the babies of women who were exposed to chemical solvents in the workplace. They're finding vision problems.

"Vision is one of the functions of the human brain, so it means that these chemicals find themselves through the mum, through the umbilical cord, into the baby, into the developing brain, and damaging functions there, and the baby is born already with a problem," Koren said.

Manufacturers are obliged to release toxicology data in the workplace. But when these same chemicals are used in the home, the exposure is lower. But no one knows what affect they

may have — and there's no obligation to inform us.

In Canada, respiratory illness is now the leading cause of admission to hospital for children. Childhood asthma has jumped by 400 per cent. After injuries, cancer is now the leading cause of death in children between the ages of five and nine.

Dr. Virginia Salares specialized in indoor air quality. We asked her what's in some of the products being marketed to young families. One product we looked at — Lysol Anti-bacterial Action Spray — lists ethanol 79 per cent. Not just any ethanol, Salares, says. It's denatured ethanol.



Dr. Virginia Salares, indoor air quality expert.

Salares has put together a book for us, full of data sheets which lists the hazards of specific chemicals in the workplace. Here's what she discovered about denatured ethanol:

"May cause irritation of the eyes and mucous membranes, may cause central nervous system depression if inhaled or ingested."

There's also alkyl dimethyl benzyl ammonium chloride — a pesticide.

The ads suggest you can spray this every day, where kids are playing. Salares says that's something parents should think about.

"Do they want to spray the air people are breathing? Or that kids with toys or surfaces that children are touching, do they want them sprayed?"

Clorox Disinfecting Wipes lists two ingredients: dimethyl benzyl ammonia chloride .145 per cent and dimethyl ethyl benzyl ammonia chloride. Again, more pesticides.

If you can't pronounce it, should you use it?

"If you find that it has ingredients, which is a chemical you can't even pronounce, you don't know what it is, you don't know how it can affect you. I think it's about time you think, should I be using this?" Salares said.

The other product we looked at was Pledge. It doesn't list any ingredients at all. But Salares has looked into it: "It has silicones... and it has butane gas...and propane."

And in glass cleaners? "Some of them have what are called glycol ethers. and there's concern over these products for workers who have been exposed occupationally. They have been seeing reproductive effects. In the semi-conductor industry they are being phased out," Salares said.

Salares says we still don't know what kind of exposure to these chemicals is harmful for children, but she notes that at some level, they can be harmful.

Larry Stoffman with the Labour Environmental Alliance Society, helps run a watchdog group that looks out for the health and safety of workers.

"There's a labelling system in the workplace that uses symbols for both acute and chronic hazards and statements that are supposed to warn you about those hazards... Some of these same chemicals are in consumer products but there's nothing on the label like that for a consumer product."

Household cleaners fall under the Hazardous Products Act, which dates back to the mid-1960s. They're regulated by the Consumer Chemicals and Containers Regulations. Labels are required to provide hazard symbols like "poison" and "flammable." They also have to give information about first aid treatments for those ingredients. But there's no requirement to list other chemicals that could cause long-term health effects — and no warnings that say anything like "may cause respiratory problems."



Household cleaners fall under the Hazardous Products Act.

"People assume that it's on the shelf it's been tested, it's safe. And you can't make that assumption all the time. You can't. Not with the regulatory framework we have in place," Kathy Cooper of the Canadian Environmental Law Association, told *Marketplace*.

Cooper adds that Hazardous Products Act badly needs to be updated.

Health Canada told us in an e-mail that:

"The responsibility for assessing the hazards associated with a chemical product is that of the manufacturer."

We wanted to ask Health Canada about its role and some of the concerns raised in this story, but they refused repeated requests for an on-camera interview. The manufacturers of Lysol, Clorox and Pledge all said they were unavailable for an interview and so did their trade association.

Meanwhile, back at the Sauls' home, Shawn Ellis advises Amanda to cut back on some of her cleaning products.

"I think I'm going to go through all of them and try to find one or two that might work but also another way I might do it too is to see what natural products are out there," Amanda Saul said.

She'll have to figure out what to cut out on her own. For the time being, the government and the manufacturers of household cleaning products are under no obligation to help her.