The Challenge of Identifying

Products

A Call to Action for Better Labeling

Debra Lynn Dadd

The Leading Consumer Advocate for Toxic Free Products
since 1984

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DebraLynnDadd.com

- **Debra's List**—The largest directory of websites that sell 100s of toxic free products
- **Toxic-Free Q&A**—The largest Q&A on toxic and toxic free products with 1000s of questions and comments
- **Toxic Free Talk Radio**—more than 400 interviews with leading innovators who are creating a toxic free world
- **Consulting Services**—for individuals and businesses
- **Debra Lynn Dadd Recommended Products**—Letter of Recommendation and Materials Review for toxic free products

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Introduction

Millions of consumers buy products every day in a marketplace that is a minefield of toxic exposures that can cause harm to every part of the body.

Today many consumers are increasingly looking for products that do no harm.

IS A PRODUCT TOXIC OR NOT?

The only way to find out is to know the materials used to make the product.

The biggest challenge consumers face is difficulty getting information about the materials used to make the products.

Without disclosure of ingredients, consumers cannot determine for themselves if a product is safe or harmful to their health.

Consumers generally determine if a product is safe or potentially harmful is by

(1)	(2)
reading labels and websites, and talking to customer service representatives to find out what materials are used to make the products	doing research online to find out if the materials are safe or harmful

This is easier said than done.

Insufficient regulation, inconsistent labeling, and lack of understanding of toxics make the process difficult and confusing for most consumers.

Most retailers don't have sufficient information from manufacturers to answer consumer's questions. And even if manufacturers are contacted, frequently customer service representatives do not have the information.

While some manufacturers are starting to disclose ingredients, the vast majority of salespeople and customer service agents don't know much about the materials used to make the products they are selling, and websites often are not much more informative.

Labeling laws vary tremendously from product sector to product sector.

So at this time, ingredient disclosure regarding toxics is pretty much voluntary.

Our #1 Health Problem

Toxic chemicals in consumer products are a problem. In fact, they may be the number one health problem in the world today.

According to the distinguished medical journal The Lancet[1], a 2016 study found that chemicals found in many consumer products cost the US more than $340 billion a year in health care costs and lost earnings. And this is just for 5 percent of only one class of chemicals known as endocrine disruptors.

Consumers are spending billions of dollars on healthcare, yet these treatments cannot resolve a health problem that is being caused by toxic exposures that occur in their homes every day from consumer products.

Toxic chemical exposures are continuous in homes and offices today, unless we specifically choose products that are unlikely to contain chemicals of concern with known health effects.

We are exposed to toxic chemicals from consumer products via

Skin absorption | Eating and drinking | Breathing

Day by day these chemicals of concern are undermining our health, and work against any actions we take to improve health.

The solution is to properly identify consumer products that are unlikely to lead to illness or injury under normal use—those made from materials that do not cause harm—and make them known to consumers so they can choose and purchase them with confidence.

[1] https://www.reuters.com/article/us-health-chemicals-environment/toxic-chemicals-tied-to-340-billion-in-u-s-health-costs-and-lost-wages-idUSKBN12H2KB

The History of My Work

For more that thirty years I have been researching toxic exposures from consumer products and finding products that do not contain chemicals that cause harm.

The whole point of my work as a consumer advocate has been to find, use, and recommend everyday consumer products that do not contain toxic chemicals.

I wrote the first book on toxic chemicals in consumer products and safe alternatives in 1984, and subsequent books on the subject have been continuously in print since.

I am a consumer advocate. I am not a chemist, but I have studied chemistry. I am not a toxicologist, but I have studied toxicology. I am not a doctor, but I have studied how toxic chemicals can affect the body and what contributes to health. And I have studied all these subjects and more within the context of how they relate to our choice of consumer products.

I first became interested in toxics in consumer products in 1978, when an immune system breakdown caused my body to be sensitive to all petroleum-based manmade chemicals.

It just made sense to me that if chemicals were making my body sick, I should find out what these toxic chemicals are and where I was being exposed to them in the consumer products in my home. I spent my days in medical libraries and poison control centers, studying health effects of chemicals and piecing data together about where these chemicals were found in consumer products.

When I stopped wearing perfume, I no longer had headaches. When I removed the permanent-press polyester-cotton sheets and pillowcases that were emitting formaldehyde from my bed, my insomnia disappeared. One by one my symptoms vanished as I found the causative chemical exposure and removed it.

Eliminating toxic consumer products from my home improved my health dramatically. I had to tell others.

Labeling Products Nontoxic & Toxic Free

For more than three decades I have been using the terms **"nontoxic"** and **"toxic free"** interchangeably because in the minds of the public, the two words have the same meaning: **the product is free from chemicals that are known to lead to illness or injury under normal use**.

Unfortunately, there are no meaningful regulations to guide the use of terms to let consumers know the product does not contain chemical that are likely to cause harm.

Here are the regulations that do exist that can be used to put together a definition of "nontoxic" and "toxic free".

Definition of "Nontoxic"

THIS PRODUCT IS NOT TOXIC

Manufacturers tend to use the term "nontoxic" if a product does not meet the legal definition of "toxic." There is a legal definition of "toxic."

According to Part 1500 of the **1960 Federal Hazardous Substances Act**:

> **"Toxic"** shall apply to **any substance** (other than radioactive substances) **which has the capacity to produce personal injury or illness to man through ingestion, inhalation, or absorption through any body surface.**

Later in the document, the Hazardous Substances Act notes that "highly toxic" also could refer to "a substance determined by the [Consumer Product Safety Commission] to be highly toxic on the basis of human experience."

With these definitions,

one could assume then that a "nontoxic" substance does *not* have the capacity to produce personal injury or illness to humans through ingestion, inhalation, or skin absorption.

But there are no legal requirements for the use of the term "nontoxic."

There is a scientific measure for toxicity that depends on animal studies. Again, according to the Hazardous Substances Act:

> "Highly toxic" means any substance which falls within any of the following categories:
>
> | (A) | (B) | (C) |
> |---|---|---|
> | **Produces death within 14 days on half or more than half of a group of 10 or more laboratory white rats** each weighing between 200 and 300 grams, at a single dose of 50 milligrams or less per kilogram of body weight, when orally administered; or | **Produces death within 14 days in half or more than half of group of 10 or more laboratory white rats**…provided such concentration is likely to be encountered by man when the substance is used in any reasonably foreseeable manner; or | **Produces death within 14 days in half or more than half of the group of 10 or more rabbit**s tested in a dosage of 200 milligrams or less per kilogram of body weight when administered by continuous contact with the bare skin for 24 hours or less. |

If half or more than half of the animals die, then the test substance is highly toxic; if less than half die, it's not.

So theoretically, up to half of the test animals can die and the product can be called "not highly toxic," and perhaps even "nontoxic."

This certainly isn't the same as the mere negation or absence of the capacity to produce personal injury or illness, nor does it mean that a product labeled nontoxic is completely safe.

I also looked to the regulations for **Safety Data Sheets (SDS)** to see how they evaluate what's toxic. They require manufacturers of hazardous chemicals and products that contain hazardous chemicals to provide a SDS to workers who are working with these chemicals. **But there is no properly defined list of hazardous chemicals**. It's all left up to the manufacturer. So while we can look to an SDS to find out what toxic chemicals are in a product, we can't rely on it to list *all* chemicals that might be toxic.

The only legal definition of "nontoxic" I could find was in the Code of Federal Regulations. Part 129, for the Processing and Bottling of Bottled Drinking Water. There it says, **"Nontoxic materials means materials…which are free of substances which may render the water injurious to health."**

The Federal Trade Commission (FTC) has issued *Green Guides* to help guide manufacturers in making claims for health and the environment that are truthful and not misleading.

Regarding "nontoxic" the FTC says:

(a)	(b)
It is deceptive to misrepresent, directly or by implication, that a product, package, or service is non-toxic. **Non-toxic claims should be clearly and prominently qualified to the extent necessary to avoid deception**.	A non-toxic claim likely conveys that a product, package, or service is non-toxic both for humans and for the environment generally. Therefore, **marketers making non-toxic claims should have competent and reliable scientific evidence that the product, package, or service is non-toxic for humans and for the environment** or **should clearly and prominently qualify their claims to avoid deception.**

Unfortunately, nontoxic claims are made every day without substantiation. Many products claim to be nontoxic without even listing their ingredients so consumers can research the ingredients for themselves.

Definition of "Toxic Free"

THIS PRODUCT IS FREE FROM TOXIC INGREDEINTS

Where *nontoxic* is generally defined as "this is not toxic," *toxic free* means "this product is free from toxic materials or ingredients."

The difference is slight, but there. *Nontoxic* focuses on the toxicity of the finished product, *while toxic free* concludes that the product is free from toxic effects because the individual materials are not toxic.

In the issued *Green Guides*, the Federal Trade Commission also addresses the claim of a product being "free-of."

> (a) It is deceptive to misrepresent, directly or by implication, that a product, package, or service is free of, or does not contain or use, a substance. Such claims should be clearly and prominently qualified to the extent necessary to avoid deception.
>
> (b) A truthful claim that a product, package, or service is free of, or does not contain or use, a substance **may nevertheless be deceptive if**

(1)	(2)
the product, package, or service **contains or uses substances that pose the same or similar environmental risks as the substance that is not present**	the substance has **not been associated with the product category**.
EXAMPLE: A claim of "BPA-free" would be deceptive if a product that usually contains BPA now contains a similar chemical	EXAMPLE: Fresh pineapple does not contain BPA so a "BPA-free" claim would be deceptive

Toxic Free Products May Still Contain Toxics

The *Green Guides* go on to say:

> c) Depending on the context, **a free-of or does-not-contain claim is appropriate even for** a product, package, or service that **contains or uses a trace amount of a substance** if:

(1)	(2)	(3**)**
the level of the specified substance is **no more than that which would be found as an acknowledged trace contaminant or background level**	the substance's presence **does not cause material harm that consumers typically associate with that substance**	**the substance has not been added intentionally to the product**.

This is very interesting.

Even the FTC acknowledges that we cannot control trace background levels of toxic exposures.

The Federal Trade Commission has established that

the claim of "toxic free" applies only to those specific materials and substances that are combined together to make the product.

On the label of the product, we are given the basic ingredients, but what is not given are: the toxic contaminants or impurities.

CONTAMINANTS

any substance that is *added* to a material, but which is not an intended ingredient. Some contaminants are benign, and others may cause harm. In the dictionary, a contaminant is "something that makes a place or a substance (such as water, air, or food) no longer suitable for use."

EXAMPLE: BPA leaching into food from a can lining, or residues of pesticides remaining on food.

IMPURITIES

any substance that is *present* in in a material that is something other than the material itself. Impurities are a result of incomplete manufacturing processes or environmental pollution.

EXAMPLE: It is known that certain pesticides are everywhere on Earth, heavy metals are everywhere, fluoride is everywhere…

Since the mid 1940s the entire Earth has been increasingly polluted with a variety of toxic chemicals, even in such non-industrial places as the Arctic Circle. So there are few, if any, raw materials anywhere on Earth that are completely free from impurities.

But by far the most important thing consumers need to do is choose products that do not contain toxic ingredients that are intentionally used to make the product.

And to do this, consumers need to know the ingredients used to make each and every product.

My Standard: How I Determine a Product Does Not Contain Toxic Chemicals

As a consumer advocate, I use my own standard to evaluate consumer products for toxic exposures:

My standard is "zero toxics"

What this means to me is

A product contains zero chemicals
that are known to cause harm
intentionally added as an ingredient

I research to learn which product ingredients are toxic, then look for products that do not use these chemicals as ingredients.

Eliminating Toxics

In the beginning, I researched and compiled a list of forty toxic chemicals that were generally known by scientific evaluation to lead to illness or injury during normal use. And then I set out to find products that did not contain these forty chemicals.

My methodology has always been (and still is):

1. find out the materials used to make individual products and
2. compare these materials to my ever-growing list of chemicals known to be toxic.

I quickly found out that not all ingredients are listed on labels, and even when materials are listed, the ingredients might contain toxics not included on the label. Food products, for example, allow applesauce to be labeled, "Apples, sugar, water," without stating there are pesticides in the apples, the sugar is refined, or that pollutants are present in the water. This type of label can look perfectly safe, but the product may contain potentially harmful chemicals.

One must know the materials used to make the product and the toxicity of materials in general in order to make this evaluation.

It's not something every consumer knows how to do.

Today the list of chemicals known to be toxic is much larger, but my methodology is still the same: I look at each and every material to determine if it may contain toxic chemicals or not.

0

Another method I use to find nontoxic products is to look for certain types of materials that are defined as nontoxic in specific ways.

Certified organic foods and fibers, for example, are certified to not have pesticide residues or toxic dyes or finishes and to be free of a whole list of toxic chemicals. **Global Organic Textile Standard (GOTS)** certifies that textile products are made from organic fibers in a certified facility that is free from toxic chemicals.

Made in the USA products may or may not be made of nontoxic materials, but they are free from pesticides sprayed on cargo in shipping containers and it's possible to contact USA manufacturers to get more information.

Making Progress in a Direction

While today it's impossible to achieve the goal of zero toxics throughout the entire supply chain and the entire environment, what we *can* achieve is zero use of many chemicals that are known to be toxic.

And indeed, this is already happening. Many manufacturers have voluntarily discontinued use of chemicals found to be toxic, and entirely new fields, such as green chemistry, artisan production, and organic growing are booming.

As we all work together to make "zero toxics" products easy to identify and more widely known, we all benefit with better health, reduced healthcare costs, and a clean environment.

Methodology: How I Determine Which Materials Are Toxic, and Which Are Not

Over the course of my thirty-plus years of study I have observed a few things.

One is that materials fall into three basic categories with regard to health:

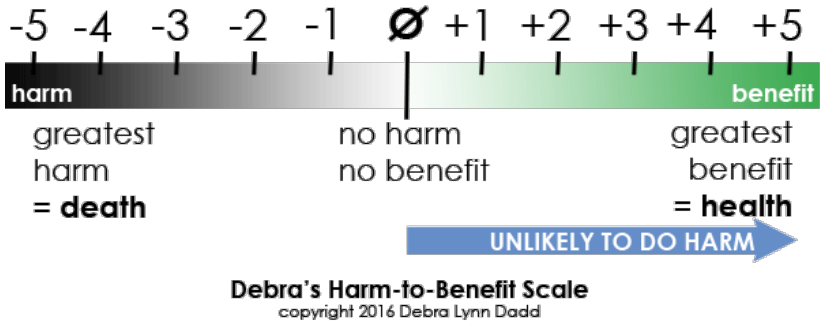
- **beneficial** (having a good result)
- **benign** (not harmful in effect, but also having no benefit)
- **toxic** (causing harm, in this case to health and/or the environment).

An example of a toxic material would be formaldehyde, which is known to cause cancer.

An example of a benign material is glass, which has no toxic effects but also does not offer a health benefit.

An example of a beneficial material is an organically-grown orange, which in addition to being free from toxic pesticides, also has beneficial nutrients, such as vitamin C.

These categories are not static, but have many gradient degrees. On a scale, it looks like this:



Debra's Harm-to-Benefit Scale

Using this scale, it's easy to see where any material or product might be placed, to determine its effect on health.

My broadest definition of "unlikely to do harm" is a material that at least will not cause illness or injury and may in addition offer positive benefits that contribute to health.

The Field of Toxicology

There is a whole field of toxicology that establishes the inherent toxicity of materials using scientific methods. There are standards, such as the **LD50** (lethal dose 50, which measures how much of a substance is needed to kill half of the lab rats) and the **Hazardous Materials Identification System (HMIS)** Health Hazard Rating for chemicals, from 0-4.

There is an abundance of information available on the internet regarding the toxicity of chemicals. Some of the sources I use are:

- Material Safety Data Sheets (MSDS)—now known as Safety Data Sheets (SDS)
- Environmental Product Declarations and Health Product Declarations
- Environmental Protection Agency
- Centers for Disease Control
- Environmental Working Group
- Scorecard Chemical Profiles
- Collaboration on Health and the Environment Toxicant and Disease Database
- EXTOXNET
- State of California Office of Environmental Health Hazard Assessment
- Tox Town
- Environmental Health News
- Pharos
- Quartz

And many more.

In addition I also search the internet for studies and technical data provided by manufacturers as well as statements made by researchers and healthcare professionals who are observing toxic effects in their patients, and individuals who are experiencing toxic effects.

I collect substantiation for all chemicals I consider to be toxic, so my recommendations for elimination of exposures have a scientific basis.

Individual Tolerance

But beyond science is the practical question of **whether or not a specific chemical is toxic to a specific body. This is not a yes-or-no question**. It's an ***evaluation of risk***.

Every day we evaluate the potential for harm of many different things. For example, how safe is it to cross the street? There might be danger. We could get hit by a car. But does that mean we will never cross the street? No. We look both ways and when there are no cars approaching, we cross with confidence that we will be safe.

It's the same with toxic chemicals in consumer products. There are no absolutes.

Here's why.

First, **every individual body is different**. Whether or not a chemical causes harm in your body depends on:

- The inherent danger of the chemical
- The amount of the chemical you are exposed to
- How frequently you are exposed to it
- Other chemicals you are being exposed to at the time or have been exposed to in the past and are now being stored in your body
- How healthy your body is, and
- Your age (babies and children, for example, do not have fully developed body systems, and the body systems of the elderly are worn).

In addition, **body size makes a dramatic difference** in how it is affected by a chemical exposure. You could have, for example, 100 parts per million formaldehyde in a room and the exposure would be very different for a 10 pound baby, a 50 pound child, a 120 pound woman or a 200 pound man.

Also, **each individual body has its own set of limitations**, which could be in the form of allergies, sensitivities, intolerances, foods that raise blood sugar, and the like. One cannot possibly factor in all these possible health effects that are often individual in nature.

My experience has been that *reducing* exposure by eliminating the chemicals known to be toxic can make a dramatic difference in health, even if chemicals of concern are not eliminated 100%.

The Ideal

At this point in time, my work is limited to the known health effects that may be caused to the end user consumer of a product. All I can look at is the ingredients list available to me on the label or website, or given to me by the manufacturer and compare them to lists of known toxics.

But there are three other aspects that ultimately need to be considered.

One is the **supply chain**. This is the entire chain from taking the raw material from the Earth to putting it in the final product. Most manufacturers know nothing about their supply chains and those that attempt to evaluate their supply chains often have difficulty getting information. Where information is available on supply chain, I will include it in my materials review, but I can't require it because it's so infrequently available.

I also at this time am not considering the broader effect of the materials to the overall **environment**. While here again data is limited, the main reason is because a consumer's first concern is "Will the product harm my health and the health of my loved ones?" However, any toxic chemicals eliminated from use by consumers for the benefit of their health also benefits the environment.

My intent is to include these supply chain and broader environmental effects in the future.

One factor that I may never be able to consider are the synergistic effects that occur between chemicals.

Only recently scientists have learned that **certain chemicals which do not cause cancer alone *can* cause cancer when they are combined**. This tendency for effects of chemicals to worsen in unpredictable ways when combined is one of the reasons I have long recommended to avoid as many toxic chemicals as possible in daily life.

What I Look For When Evaluating a Product

I have been researching toxic chemicals in consumer products as an educated consumer for more than thirty years. What I am looking for are products that are made up of materials that have little or no ability to lead to illness or injury under normal use.

Here's what I look for when I evaluate a product:

- What are the policies and guiding principles of the company regarding toxics?
- What are the materials used to make the product?
- What are the known toxic exposures that are inherent in that material?
- Have there been any independent third party testing or certifications by independent organizations to validate that less toxic practices have been followed?
- Is it made in the USA? If not, what country is the product made in and where do the materials come from, and what standards apply?

I look at each ingredient and assess its toxicity by using standard toxicology resources and scientific studies to determine if chemicals are toxic.

Rather that excluding only the most toxic ingredients, I err on the side of caution and look for the safest ingredients available.

I apply the **Precautionary Principle** when deciding whether a product ingredient is toxic or not:

THE PRECAUTIONARY PRINCIPLE

> "When human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm."

And I also bring my thirty-plus years of experience and knowledge of toxics that might be used that are not on the label (such as toxic pesticides that might be present as residues or that "permanent press" on a label indicates a resin has been applied to the fabric that emits formaldehyde vapors).

I have looked at many products that claim to be "nontoxic" or "toxic free" and have found that my standards are stricter than most. Many products that claim to be nontoxic don't meet my standards.

I'm looking for the least possible exposure of toxic chemicals for the end user consumer.

Right to Know

There is a legal principle in the United States called "**right to know":**

THE RIGHT TO KNOW

> An individual has the right to know the toxic chemicals to which they may be exposed.

This principle is embodied in federal law in the United States in as well as in local laws in several states.

But right to know laws are it limited to community and workplace. *They do not apply to consumers or consumer products*.

If we have a right to know the toxic chemicals to which we may be exposed in our daily living in our communities and in the workplace, we certainly ethically have the right to know the toxic chemicals to which we may be exposed in consumer products we bring into our homes and live with.

The way the laws are now, a *worker* has the right to know about toxic chemicals he or she is working with to make a consumer product, but a *consumer* does not have the right to know the chemicals of concern he or she is exposed to when they use this very same product.

We as well as have the right to know which products do *not* contain toxic chemicals.

The Solution

Many individuals and organizations are now working to strengthen federal regulations regarding toxic chemicals in consumer products. But there is no need to wait.

Over the past thirty years,

I have seen a real shift in the marketplace as a result of consumers demanding toxic free products and manufacturers providing them in response.

The real solution to the problem of toxics in consumer products is two-fold:

1. Manufacturers and artisans need to provide toxic free products made from toxic free materials.

2. **These toxic free products need to be labeled in ways that are truthful and clear**, **provide full disclosure of all materials** and **provide evidence that the materials are not toxic** (such as organic certification certificates posted on websites).

In order for this to happen, consumers need to buy toxic free products.

For consumers to buy toxic free products, they need to be able to find and identify them as being toxic free.

As a step in this direction, I offer **Debra Lynn Dadd Recommended Products** as a means to help manufacturers and artisans communicate with consumers about how their products are unlikely to cause harm, so consumers can choose the safest products with confidence.

For more information on **Debra Lynn Dadd Recommended Products**, visit
www.DebraLynnDadd.com/recommended-products