MYTH ▶ A SMALL AMOUNT OF A CHEMICAL CARCINOGEN IN A PERSONAL CARE PRODUCT ISN’T DANGEROUS

FACTS ▼
▶ When laboratory animals were tested with 1,4-Dioxane at the lowest parts per billion level—over the animal’s lifetime—they developed cancer. [1], [2]
▶ The levels of 1,4-Dioxane found in many personal care products are 1,000 times higher than those found to cause cancer in laboratory animals. Based on this fact, these should not be considered “low levels” of 1,4-Dioxane. [3]
▶ The combined effects of lifetime exposure to 1,4-Dioxane and other carcinogens can create synergistic effects, so that levels from multiple compounds add up and even multiply to create greater risk. [3]

MYTH ▶ ANIMAL STUDIES ARE IRRELEVANT TO IDENTIFYING PROBABLE HUMAN CARCINOGENS

FACTS ▼
▶ Because we cannot ethically test carcinogens on a human population, the World Health Organization and most domestic & international regulatory bodies have advised that chemicals that are found to induce cancer in rodents should be considered to cause cancer in humans. [4]
▶ “It is also noteworthy that all known carcinogenic agents for man have been shown to be also carcinogenic in animals and frequently in the same site. Hence, common pathogenetic factors are clearly involved in the development of cancer in man and in animals.” -Roy Hertz, M.D., Ph.D., of the National Institutes of Health. [5], [6]

MYTH ▶ 1,4-DIOXANE ISN’T READILY ABSORBED THROUGH THE SKIN

FACTS ▼
▶ According to a California state health official’s memorandum 1,4-Dioxane “is readily absorbed through the lungs, skin and gastrointestinal tract of mammals.” [7]
▶ The FDA has stated that, “Skin absorption studies demonstrated that dioxane readily penetrates animal and human skin from various types of vehicles.”
▶ For example, during exposure to 1,4-Dioxane from a bath product, a person’s skin is warmed, pores are opened, the skin is soaked in the contaminated water, and 1,4-Dioxane enters the bloodstream. 1,4-Dioxane is also released as a gas and is inhaled as it is trapped in the enclosed area of the bathroom or shower.
Because dioxane causes cancer in animals, workers in the US have a right to some basic protections. One of these is to be informed they are handling or exposed to a cancer-causing chemical. But when it comes to our homemakers, caregivers and children who are exposed regularly if not daily to this chemical and without protective gear, manufactures are not required by law to label it as a carcinogen due to federal regulatory loopholes in the Food Drug and Cosmetic Act.

**MYTH ▶ COSMETICS ARE CAREFULLY REGULATED BY THE FDA**

**FACTS ▼

▶ The FDA does not conduct or require independent pre-market safety testing of new products or chemicals. The cosmetics and personal care products industry must provide its own safety testing.

▶ Companies are industry allowed to provide data to the FDA regarding the safety of their own product ingredients by funding scientific review boards comprised of doctors and toxicologists which they select. In this way, companies seeking to profit from products may influence the selection of study results submitted to the FDA submits.

▶ Once a product is on the market, the burden of legal proof required for its removal is extremely high.

▶ Since cancer and birth defects are often latent occurrences, it is difficult if not impossible to prove causation in the judicial system. Therefore, it is nearly impossible to remove a potentially dangerous product.

**REFERENCES**


-Adopted From The Campaign For Safe Cosmetics

MYTH ▶ THE CONTAMINATION OF PRODUCTS WITH 1,4-DIOXANE IS AN ISOLATED OCCURRENCE

**FACTS ▼

▶ Cosmetics contaminated with 1,4-Dioxane might also have traces of formaldehyde, nitrosamines, phthalates and other contaminants. According to David Steinman, author of Safe Trip to Eden: Ten Steps to Save Planet Earth from the Global Warming Meltdown: “I can go into any store and at least half if not more than three fourths of the products with suspect ingredients will actually be found to contain a number of known and suspected carcinogens.”

**MYTH ▶ CLEANING UP 1,4-DIOXANE CHEMICALS WOULD BE COST-PROHIBITIVE TO COMPANIES AND CONSUMERS**

**FACTS ▼

▶ There are many inexpensive and effective alternatives to ethoxylation and to the ingredients implicated in the creation of 1,4-Dioxane in widespread use among many leading personal care products.

▶ For example, laboratory studies show 1,4-Dioxane is nonexistent in the variety of products produced and certified under the USDA National Organic Program.

▶ According the FDA Cosmetic Handbook, the cost of removing or “vacuum stripping” out this chemical carcinogen after it has been created is extremely low, and the raw materials are readily available. [16]