Beyond the Label: Health Impacts of Harmful Ingredients in Cleaning Products

Executive Summary:

From creation and distribution, to use and disposal, everyday products have a dramatic impact on our health and environment. Exposure to toxic chemicals from products adds to the harm many people of color, Indigenous people, and low-income families already face from industrial pollutants, climate change, lack of adequate healthcare and access to healthy food. By evaluating new ingredient information now available about toxic chemicals used in cleaning products, this report aims to highlight the role of the cleaning products industry in cumulative harm and disproportionate burdens many cleaning product users already face from numerous other determinants of health from occupational exposure and pollutants in their environments, to social, racial and gender injustices.

For over a decade, Women’s Voices for the Earth has advocated for the safety and transparency of ingredients used in cleaning products. As a result of a new California law (California Cleaning Product Right to Know Act – SB 258), we have dramatically increased our understanding of the ingredients we are exposed to in keeping our private and public spaces clean.

This report calls attention to some of the most problematic and pervasive ingredients used in household and institutional, cleaning products that have remained hidden from the general public until now. It also includes recommendations for ensuring that cleaning products are regulated for safety, that companies are accountable for their role in cumulative exposures, and that manufacturers prioritize the health and well-being of the people who use their products.

WVE Found:

- Several of the toxic chemicals identified in this report pose specific risks during pregnancy, which is especially concerning as cleaning products are frequently marketed to women and women are much more likely than men to use cleaning products both at home and at work.

- Fragrances used in cleaning products were hiding some of the most problematic chemicals including those linked to reproductive harm, aquatic toxicity, allergens and hormone disruption. For example:
  - Fragrance chemical, Lilial, (often listed as butylphenyl methylpropional) is classified by the European Union (EU) as a reproductive toxin (and banned from products in the EU). It is still used widely in the United States in cleaning products including laundry products, air fresheners, multipurpose cleaners, glass cleaners, and carpet deodorizers.
  - Fragrance chemical HICC is banned from cosmetic products in the EU because it is a potent skin allergen. HICC is also still found in numerous cleaning products in the United States including laundry products and air fresheners.

- Cleaning products within brands marketed to people of color, particularly the Latinx* community, commonly contain chemicals of concern such as reproductive toxicants and skin allergens.

- Car Wash Products are uniquely under-disclosed and impacts from occupational exposures to car wash products is woefully under-researched.

- None of the chemicals of concern identified in this report are essential to the performance of cleaning products. There are safer alternatives that could and should be used in all cases.
Summary of Results: Toxic Chemicals Found in Cleaning Products Sold in the United States

Diethyl Phthalate (DEP)
Exposure to diethyl phthalate can result in higher risks of preterm birth. A child born prematurely can have lifelong health impacts. Diethyl phthalate exposure can also decrease lung function and affect breathing.

Where do we find it?
Carpet cleaners and some fragranced products.

Butylphenyl Methylpropional (Lilial)
Butylphenyl methylpropional may cause harm to a fetus during pregnancy and could affect fertility. In 2020, the European Union (EU) classified butylphenyl methylpropional as a CMR 1B reproductive toxin. As a result, the chemical will be banned from cosmetics and cleaning products in the EU as of 2022.

Where do we find it?
Laundry products (detergent, laundry scent boosters, fabric softeners, dryer sheets), dish soap, air fresheners, multipurpose cleaners, glass cleaners and carpet deodorizers.

Hexamethylindanopyran (Galaxolide)
Galaxolide is a widely detected water contaminant that does not break down easily in the environment and is highly toxic to fish and other aquatic creatures. Galaxolide is a potential endocrine disruptor and may break down the body’s natural defenses against other toxic chemical exposures.

Where do we find it?
Air fresheners, all-purpose cleaners, bathroom cleaners, laundry detergent, laundry scent boosters, fabric softener, dryer sheets, carpet cleaners and dish soap.

Tetramethyl Acetyloctahydronaphthalenes (OTNE)
OTNE is an emerging chemical of concern, frequently found to contaminate water and is highly toxic to fish and other aquatic creatures. OTNE is a potential reproductive toxicant in studies on mice, but there is no research available to tell us how OTNE may be affecting human reproductive health.

Where do we find it?
Laundry products (detergent, laundry scent boosters, fabric softeners, dryer sheets); occasional use in dish soap, all-purpose cleaners and glass cleaners.

Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC)
HICC is a well-known and well documented skin allergen. As of August 2021, this fragrance ingredient is banned in both cosmetic products and cleaning products in the European Union.

Where do we find it?
Laundry products (detergent, laundry scent boosters, fabric softeners, dryer sheets); some air fresheners.
Isothiazolinones: Methylisothiazolinone (MI) and Methylchloroisothiazolinione (MCI)

MI and MCI are two of the most common chemicals causing skin allergy in the United States. They have been banned and/or restricted from use in cosmetics in many countries around the world including the European Union and Australia. There are no regulatory bans or restrictions of these chemicals in the United States.

Where do we find them?
Cleaning wipes and liquid dishwashing soap, some carpet cleaners, laundry detergents, all-purpose cleaners, and fabric softeners.

Glycol ethers: 2-butoxyethanol, Butoxydiglycol and Ethoxydiglycol

Exposure to glycol ethers during pregnancy can affect the development of the fetus's brain. Glycol ethers exposure during pregnancy can decrease IQ, affect motor function, and increase the risk of behavioral concerns such as attention deficit and hyperactivity in children.

Where do we find them?
Most commonly found in institutional/janitorial products, and products sold in dollar stores. Specifically, spray glass cleaners, aerosol foaming glass cleaners, carpet cleaners and all-purpose cleaners.

Car Wash Products

Car wash products were identified as products of concern, deserving of particular attention and research for several reasons: Occupational exposure and environmental impacts from these products on a disproportionately impacted population are under-researched but could be considerable. Unique toxic ingredients were especially identified in this category including nonylphenols, ethylbenzene, formaldehyde, ethylene oxide and several forms of petroleum distillates. Ingredient disclosure within this category was lacking for numerous brands.

Conclusion:

Chemicals of concern used in cleaning products pose unnecessary hazards to our health and should be replaced with safer alternatives. Manufacturers are responsible for the safety of their products and for prioritizing the health of the people that use them and are exposed to them. They must do a better job of understanding who uses their products, how people are using them, and how cleaning products add to the cumulative impacts related to sourcing, manufacturing, sale, and disposal of cleaning products on the environment and on public health. Many users of cleaning products are disproportionately burdened by toxic exposures and societal injustices that affect their health in numerous ways. For example, the overwhelming majority of those who clean for a living are women, people of color and low-income people. At the same time, they are more likely to experience racism and other forms of discrimination, breathe more polluted air, and live in neighborhoods where high risk chemical and commercial hazardous waste facilities are located. Governing regulations and the cleaning product industry need to prioritize these existing conditions when designing safer products for their customers, and be accountable for the role cumulative impacts from exposure to cleaning products has on individuals and communities. Simply put, cleaning should always be good for our health, and not add to the widespread public health burdens that impact our quality of life.

*Latinx is used as an alternative to the gender binary inherent to formulations such as Latina/o and is used by and for Latinos who do not identify as either male or female, or more broadly as a gender-neutral term for anyone of Latin-American descent.

For references read WVE’s report Beyond the Label at: womensvoices.org/beyonddthelabel