

## Costs and Consequences of Using Traditional Cleaning Chemicals

1. Five billion pounds of chemicals are consumed annually in the US to maintain institutions such as schools. The majority of these products are derived from nonrenewable resources.\*
2. Exposures of expectant mothers to household chemicals (including cleaners) has been linked to the development of persistent wheezing in their offspring as well as a 41% increased risk of developing asthma by the age of seven. (European Respiratory Journal 2008)
3. One out of three cleaning products contains ingredients known to cause human health problems, as well as environmental contaminants that add to water and air pollution.\*
4. Cleaning products are responsible for eight percent of the total nonvehicular emissions of VOCs (volatile organic compounds) which can trigger respiratory problems such as asthma, contribute to smog formation and inhibit plant growth.\*
5. Toxic cleaning chemical use damages our health and burdens society with increased health care, lost work and reduced productivity. For example:
  - US institutions currently spend more than 75 million dollars annually on medical expenses and lost wages for custodians due to injuries from using chemicals.\*
  - Studies show 6 out of 100 janitors using traditional cleaning products experience chemical-related injuries (burns to eyes and skin every year).\*
  - One study estimated that the use of safer cleaners in combination with better ventilation would produce a productivity gain worth between 30 and 150 billion dollars.\*
  - Twelve percent of work-related asthma can be linked to cleaning product exposures (Journal of Occupational and Environmental Medicine, 2003)
  - The annual cost for healthcare and lost productivity associated with asthma is estimated by the National Heart, Lung and Blood Institute to be \$16 billion.
6. Some traditional cleaning products are dangerous and present health, safety and security risks because they are highly flammable and can produce deadly gases when mixed.\*

As an example, in July 2008, a 17 year old employee of a Fairfield, CT restaurant received chemical burns to 60 percent of his body. The injury occurred when he kicked over bleach and oven cleaner while suffering an epileptic seizure. The CT Departments of Public Health and Environmental Protection were called in to neutralize the chemical spill to nonhazardous levels and ventilate the building with positive pressure fans. Some first responders became contaminated as a result of off gassing and direct contact with the victim. (Fairfield Citizen, July 2008)

\* See [A Clean Sweep: Purchaser's Are Buying Safer, Effective and Affordable Cleaning Chemicals](#) by Scot Case (Center for a New American Dream) published in Government Procurement Magazine. (Spring 2005)