American workers use tens of thousands of chemicals every day. While many of these chemicals are suspected of being harmful, only a small number are regulated in the workplace.

As a result, workers suffer more than 190,000 illnesses and 50,000 deaths annually related to chemical exposures. Workplace chemical exposures have been linked to cancers, and other lung, kidney, skin, heart, stomach, brain, nerve, and reproductive diseases.

Establishing a chemical management system that goes beyond simply complying with OSHA standards and strives to reduce or eliminate chemical hazards at the source through informed substitution best protects workers. Transitioning to safer alternatives can be a complex undertaking, but a variety of existing resources make it easier. OSHA has developed this step-by-step toolkit to provide employers and workers with information, methods, tools, and guidance on using informed substitution in the workplace.

By using this toolkit, businesses can improve worker well-being through eliminating or reducing hazardous chemicals, while creating other benefits, including:

- Cost Savings — Reduce expenses and future risks.
- Efficiency — Improve performance.
- Industry Leadership — Invest in innovation to stay competitive.
- Corporate Stewardship — Advance socially responsible practices.

This toolkit can be used by all types of businesses—it is for manufacturers using chemicals in their production processes as well as for businesses that use products containing chemicals in their everyday operations. For example, service-oriented workplaces (such as janitorial companies, auto body repair shops, and pathology labs) and construction work sites often use products containing chemicals that could present hazards to workers.

Workers also can use this toolkit to better understand chemical use in their workplace, find opportunities for using safer chemicals, and engage with their employers throughout the process of identifying, evaluating, and transitioning to safer alternatives.
Transitioning to Safer Chemicals

OSHA wants to help businesses thrive safely by asking them to look at their chemical use and adopt ways to reduce the use of hazardous chemicals. Together, OSHA, employers, and workers can protect America's workforce and strengthen America's businesses.

Note: This website is advisory in nature and informational in content. It is not a standard or regulation, and it neither creates new legal obligations nor alters existing obligations created by OSHA standards or the Occupational Safety and Health Act.

This number is derived using the methodology from "Green Chemistry in California: A Framework for Leadership in Chemicals Policy and Innovation," (http://coeh.berkeley.edu/docs/news/06_wilson_policy.pdf [PDF*]) to estimate illness and deaths attributable to workplace chemical exposures.

Accessibility Assistance: Contact OSHA's Directorate of Standards and Guidance at (202) 693-1950 for assistance accessing DOC, EPS, GIF, MP4, PDF, PPT or XLS documents.

*These files are provided for downloading.