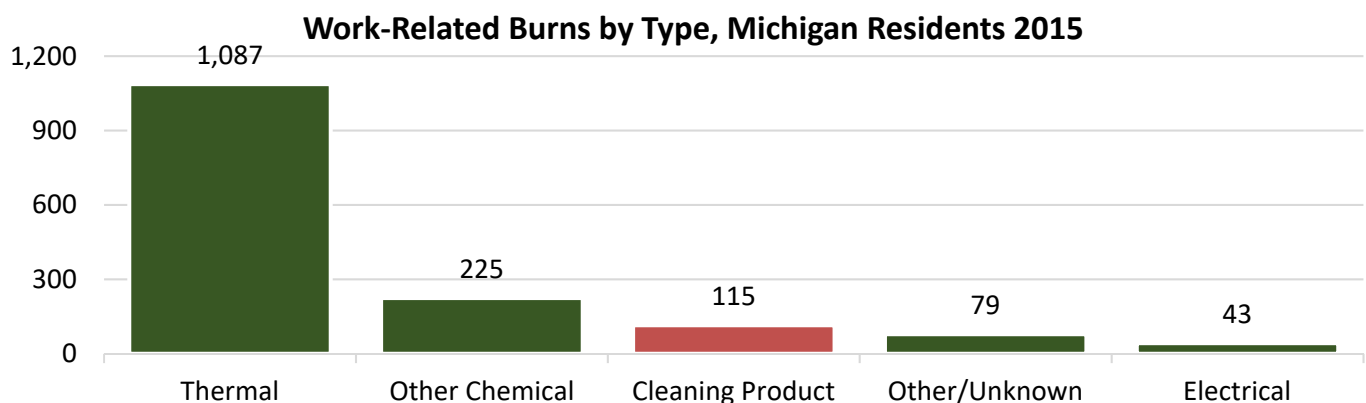




MICHIGAN STATE UNIVERSITY: Prevention of work-related injuries & illnesses through research & investigation

WORK-RELATED BURNS CAUSED BY CLEANING PRODUCTS

Individuals commonly use chemicals such as disinfectants, detergents, sanitizers, and degreasers to clean machinery and worksites. Cleaning products often contain corrosive chemicals, which may result in burns during contact with skin or eyes. In 2015, exposure to cleaning products caused 340 out of the 1,549 reported work-related burns treated in Michigan hospitals and emergency departments. Thirty-four percent of chemical burns resulted from contact with cleaning products. Roughly one out of five cleaning product burns was a second- or third-degree burn.



EXAMPLES OF WORK-RELATED BURNS CAUSED BY CLEANING CHEMICAL EXPOSURES

- A 32-year-old male received second-degree burns to his legs when a cleaner containing sodium hydroxide spilled on him while cleaning an oven at work.
- An 18-year-old female was using an undiluted sanitizer to clean equipment at a restaurant when it splashed onto her, resulting in first-degree burns to her eye and face.
- A 62-year-old female received first- and second-degree burns to her hands and wrists after using a cleaning product without gloves to clean restrooms.

WHAT EMPLOYERS CAN DO TO PREVENT BURNS CAUSED BY CLEANING CHEMICALS

- When selecting a cleaning product, always review the Safety Data Sheet (SDS) for information on hazardous ingredients, potential health problems and symptoms caused by contact or exposure, first-aid measures to take if an individual is exposed, recommended Personal Protective Equipment (PPE), and procedures to follow if a spill occurs. Employers must make SDSs readily available to their employees.
- Employers must provide employees appropriate PPE, such as gloves or goggles, when they work with cleaning products and ensure that all employees have received training on PPE requirements, cleaning and maintenance of PPE, and when to request repair or replacement of PPE.
- Employers must ensure that cleaning product containers, including both permanent and portable (secondary) containers are properly labeled. All hazardous cleaning products must include the name, address, and telephone number of the manufacturer, the product identifier, the appropriate signal word to indicate the severity of the hazard, a description of the nature of the hazard, and recommended measures to minimize or prevent adverse effects from exposure.
- Choose the least hazardous cleaning product necessary. In general, sanitizers (chemicals that reduce microorganisms) and disinfectants (chemicals that eliminate or destroy microorganisms), such as bleach, chlorine, and ammonia compounds including “quats”, are usually more hazardous than cleaners that remove dirt through wiping or scrubbing, like most soaps.

DID YOU KNOW?

- ❑ There are a variety of cleaning products branded as “green”. Although cleaning products labeled as “green” may have less environmental impact, they may still have health effects.
- ❑ MIOSHA Hazard Communication Standard 1910.1200 requires employers to provide their employees with information about all hazardous chemicals handled, used, or stored in the workplace.
- ❑ Sanitizers and disinfectants have contact time requirements that may take up to 30 minutes to be fully effective. In some situations, it is often safer and more efficient to use cleaners, such as detergents, given that cleaners provide sufficient removal of health hazards such as bacteria, fungi, and viruses.

RESOURCES

Environmental Protection Agency Recommendations of Standards and Ecolabels for Federal Green Purchasing: <https://www.epa.gov/greenerproducts>

NIOSH Cleaning and Custodial Services Publications:

<https://www.cdc.gov/niosh/topics/cleaners/publications.html>

OSHA Personal Protective Equipment Guide

<https://www.osha.gov/Publications/osha3151.pdf>

OSHA-NIOSH Infosheet: Protecting Workers Who Use Cleaning Chemicals

<https://www.osha.gov/Publications/OSHA3512.pdf>

OSHA Hazard Communication Standard Labels Quick Card

<https://www.osha.gov/Publications/OSHA3492QuickCardLabel.pdf>