



Restaurant Worker Fatally Injured from Toxic Fumes Caused from Mixing of Cleaning Chemicals

INCIDENT HIGHLIGHTS



DATE:

November 8, 2019



VICTIM:

32-year old restaurant manager



EMPLOYER:

Chain restaurant



SCENE:

Restaurant kitchen hallway



LOCATION:

Massachusetts



EVENT TYPE:

Inhalation Injury



WHAT HAPPENED?

In 2019, a Massachusetts restaurant worker poured a bleach product on the floor, before he started scrubbing. He needed more and used the next container on the shelf, a dishwasher product containing strong acids. The two products started to react on the floor, giving off a toxic, irritating yellowish vapor. Recognizing something was wrong, he ran for help. Some employees left while the 32-year-old manager stayed behind and used a squeegee to move the foaming liquid out the rear door. He was quickly overcome by the toxic fumes and was declared dead at the hospital.

Inhalation exposure to cleaning products is common in workplaces like restaurants. In 2016, at the same chain restaurant in another state, an employee with chronic asthma used chemicals with no ventilation in temperatures above 110°F. Shortly after that, the employee passed away at home from asthma, likely made worse by the work exposure.

These cases have become more common in recent years, as COVID-19 related cleaning has increased in many workplaces. Improved education and outreach on safe use of cleaning materials is critical to worker health and safety.

HOW COULD IT BE PREVENTED?

Employers should:

1. **Select the right cleaning and disinfecting products** for the task.
 - Provide safer and less toxic products, when possible.
 - Use third party certified, environmental cleaning products.
2. **Provide adequate ventilation** when your employees are using chemicals by opening doors and windows and using fans to circulate air in small spaces.
3. Remind employees **NEVER to mix different cleaning and disinfecting products.**
 - Mixing of incompatible chemicals could cause life-threatening fumes.
4. Ensure cleaning products are **diluted per manufacturer's instructions.**
5. Adhere to the [OSHA Hazard Communication Standard](#) (29 CFR1910.1200).
 - Employees have the **right-to-know about the chemical hazards** that they work with.

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- **Products should be labeled** to identify ingredients and hazards.
- Incompatible products must be **stored separately**.
- **Safety Data Sheets (SDSs)** must be available to employees in the workplace on the chemicals that they use.
- **Train employees about the chemicals they use**, what they are for, how to use them, what they contain, what harm they can do, and emergency spill procedures.
- Trainings should include:
 - How to read and understand labels and directions on cleaning and disinfecting products.
 - How to store only compatible products together (when possible, store in original containers), per SDSs.
 - How to avoid mixing of incompatible cleaning and disinfecting products, per SDSs.
 - How to avoid spray products and aerosols if possible.
 - How to put on and take off personal protective equipment (PPE) properly.

Health Hazard  <ul style="list-style-type: none">• Carcinogen• Mutagenicity• Reproductive Toxicity• Respiratory Sensitizer• Target Organ Toxicity• Aspiration Toxicity	Flame  <ul style="list-style-type: none">• Flammables• Pyrophorics• Self-Heating• Emits Flammable Gas• Self-Reactives• Organic Peroxides	Exclamation Mark  <ul style="list-style-type: none">• Irritant (skin and eye)• Skin Sensitizer• Acute Toxicity (harmful)• Narcotic Effects• Respiratory Tract Irritant• Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder  <ul style="list-style-type: none">• Gases Under Pressure	Corrosion  <ul style="list-style-type: none">• Skin Corrosion/ Burns• Eye Damage• Corrosive to Metals	Exploding Bomb  <ul style="list-style-type: none">• Explosives• Self-Reactives• Organic Peroxides
Flame Over Circle  <ul style="list-style-type: none">• Oxidizers	Environment (Non-Mandatory)  <ul style="list-style-type: none">• Aquatic Toxicity	Skull and Crossbones  <ul style="list-style-type: none">• Acute Toxicity (fatal or toxic)

6. Have an [Emergency Response Plan](#) in place.
 - Include preparations for things that can go wrong (e.g., hazardous materials cleanup plan as needed and how to evacuate).
 - Ensure employees are familiar with emergency response plan.
7. **Provide adequate personal protective equipment (PPE)** when employees need to handle chemical products, and ensure employees are wearing the appropriate clothing
 - This includes gloves, masks, goggles, etc.
 - Remind employees to wash their hands after removing PPE.
8. **Share information** from the following with your employees:
 - [Asthma and cleaning products at work \(mass.gov\)](#)
 - [Protect Yourself: Cleaning Chemicals and Your Health \(osha.gov\)](#)
 - [Protecting Workers Who Use Cleaning Chemicals OSHA-NIOSH \(cdc.gov\)](#)