



A Union of Professionals

WORK SHOULDN'T HURT

Hazard Communication

'The Right to Know' for Custodial and Maintenance Workers

Chemicals can take on many forms, including liquids, gases and powders. Every day, custodial and maintenance workers use chemicals in some capacity. Not all of them are dangerous, but some are. Good health is important to our families, to the people we serve and to us. So, you and your co-workers need to know what dangers are associated with the chemicals you use.

Custodial workers use anywhere from six to 50 different products; the range is great, because some products are used infrequently or for special cleaning jobs. The highest-risk products are generally corrosive to the eyes and skin, flammable, give off toxic fumes and are poisonous.

Examples include:

- Acidic toilet cleaners
- Metal cleaners
- Carpet spotters
- General purpose cleaners
- Floor finish strippers
- Baseboard strippers
- Graffiti removers
- Glass cleaners
- Disinfectants

Custodians can suffer several types of injuries from exposure to dangerous chemicals.

- Six out of every 100 custodians have a lost-time injury every year due to chemical exposure.
- Forty percent of the injuries involve eye irritation or burns.
- Thirty-six percent involve skin irritation or burns, and 12 percent involve breathing chemical fumes.

The Hazard Communication Standard

The AFT, along with the entire labor movement fought hard to make sure that all exposed workers have the "right to know" about the hazardous chemicals used on the job. The efforts of unions paid off with the adoption of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (HCS).

The purpose of this standard is to ensure that the hazards of all chemicals produced or imported are classified, and that information concerning the classified hazards is transmitted to employers and employees.

The HCS in a Nutshell

States with OSHA state plan programs give public employees, including school employees, the right to know what hazardous chemicals they could be exposed to by requiring employers to set up a hazard communication program, including:

- **Labels:** Chemical manufacturers and importers are required to provide a label that includes a harmonized signal word (warning or danger), pictogram and hazard statement for each hazard class and category. Precautionary statements must also be provided describing recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to the hazardous chemical or improper storage or handling.

The **American Federation of Teachers** is a union of 1.7 million professionals that champions fairness; democracy; economic opportunity; and high-quality public education, healthcare and public services for our students, their families and our communities. We are committed to advancing these principles through community engagement, organizing, collective bargaining and political activism, and especially through the work our members do.

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- **HCS Pictograms and Hazard Identifications:**

Pictograms alert users of the chemical hazards to which they may be exposed.

Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s).



Hazard statements describe the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard. There are only two words used as signal words, “danger” and “warning.” “Danger” is used for the more severe hazards and “warning” is used for the less severe hazards. There will only be one signal word on the label no matter how many hazards a chemical may have.

Precautionary statements are phrases that describe recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.

- **Safety Data Sheets (SDSs):** These include information such as the properties of each chemical; the physical, health and environmental health hazards; protective measures; and safety precautions for handling, storing and transporting the chemical. Employers must maintain copies of any SDSs that are received and should ensure that the safety data sheets are readily accessible to employees during each work shift when they are in their work area(s).
- **Training:** All employees must be trained on their rights under this standard when first employed and whenever a new chemical is introduced into the workplace; health effects of chemicals; how to read an SDS; and available controls and personal protective equipment.
- **Chemical Inventory:** Employers must maintain a list of the hazardous chemicals known to be present in the workplace.
- **Access:** The written program must cover everything that is implemented in the workplace and should

readily be available to employees and their designated representatives.

The Hazard Communication Standard gives employees the right to know:

- Full ingredient information on all hazardous substances or products;
- All known and suspected health hazards; and
- Proper control measures in place for these substances.

An SDS must include:

- Product identity and ingredients;
- Physical and chemical characteristics;
- Fire and explosion hazards;
- Reactivity information;
- Health hazards; symptoms and routes of exposure;
- Legal exposure limit (if any);
- Precautions for safe handling and use;
- Protective control measures;
- Personal protective equipment;
- Emergency and first-aid measures; and
- Spill and leak procedures.

Training must include:

- Physical and health effects of the hazardous substances;
- Methods used to detect the presence or release of hazardous chemicals; and
- Measures employees can take to protect themselves from these hazards.

Exposure – how much is too much?

Chemicals vary in toxicity, but the danger of the exposure is related to three factors: the concentration or amount, the frequency of use, and the length of time or duration of exposure. Acutely toxic chemicals can injure after a single exposure while other chemicals cause harm only after repeated exposures.

Extremely volatile chemicals evaporate rapidly into the air and therefore contaminate the air you breathe more easily than other chemicals. Corrosive or highly reactive chemicals are acutely toxic and will injure skin, respiratory passages, or eyes immediately on contact. Always consult the SDS for the physical characteristics of the chemicals you use.

Health effects of exposure

Hazardous chemicals can cause local or systemwide reactions. Local reactions occur at the site of the

exposure—such as the skin, eyes or lungs. These local reactions are usually responsible for acute or immediate health effects. Examples include burns, irritation to eyes, nose and mucous membranes. They can also cause chronic or long-term health effects when exposure occurs over a long period of time. For instance, breathing dangerous asbestos may injure lungs and respiratory passages over long periods of time.

Systemwide reactions occur when chemicals can get from the site of exposure into the bloodstream (from the skin, lungs and GI tract). Not all chemicals can enter the bloodstream but those that can frequently travel to “target” organs such as the heart, liver and the brain and cause damage upon arrival. Systemic reactions can be immediate but are most often delayed. They may cause chronic or long-term health effects such as cancer, liver damage and nerve damage.

Protecting workers from exposure

There are several ways to protect workers; some are more effective than others. The best methods to protect workers are through engineering controls, like good ventilation and through substitution controls, like replacing a toxic chemical with one that is less toxic.

Other methods to protect workers include administrative and work-practice controls, such as policies and procedures to limit the amount of time workers are using chemicals, having policies on proper storage of chemicals (including keeping chemically soaked rags and other wastes in closed containers) and cleanup procedures, and providing access to eye-wash stations and deluge showers in the case of exposure.

The least effective method is personal protective equipment (PPE). Safety data sheets are supposed to tell you what kinds of protection to wear for safe handling of products, but often they are vague. Try to use more than the SDS as a resource for selecting PPE.



Gloves: All gloves are not created equal. To be effective, they must provide protection against the specific hazards you face.

- Heavy-duty, chemical-resistant gloves are the best for custodial work.
- Natural rubber is not suited for use with oils, grease and many organic solvents because the chemicals can be absorbed through the rubber and reach your skin.
- Find a size that fits and carefully monitor the gloves for tears or holes; discard when the gloves look worn.

- To make gloves more comfortable, use a hand cream before putting the gloves on or use a cloth glove liner.
- Washing and airing gloves after use is important.

Goggles: Plastic wraparound softshell goggles are best for preventing chemical splashes. The soft edges fit closely to your face and prevent liquids from reaching your eyes. However, these goggles are uncomfortable and can fog up.

To deal with these problems, use the softest rubber goggles you can find. Also get cleaning sprays that keep the lenses from fogging up badly (although nothing can keep lenses totally clear).

Impact goggles are meant primarily for protecting your eyes from flying objects. They provide some protection from splashed chemicals, but not as much as the wraparound type.

Aprons: Using a plastic apron can be important when opening and mixing products. An apron is especially useful when handling concentrated chemicals that are being diluted with water.

Respirators: Respirators are special masks designed to provide clean air to workers in contaminated environments.

They supply “pure” air in either of two ways:

- They filter the work site air; or
- They supply clean outside air.

Negative pressure respirators are commonly used because they are cheap. They work by suction when you inhale. When you inhale with this respirator, the air will be forced to enter your mask and lungs through the filter cartridge on the respirator. As air passes through the filter cartridge, it will be purified.



If the respirator does not fit properly and snugly on your face, contaminated air will enter through the sides instead of the filter. It is important to choose the right type of filter cartridge for the job.



For instance, a dust cartridge will not protect you from organic or solvent vapors. Respirators cannot be used for routine protection unless the school district puts in place a full respirator program as described in the OSHA Respiratory Protection Standard.

For more information and training opportunities, contact the Health and Safety team at 4healthandsafety@aft.org [May 2022].