

Training Essential for Handling Cleaning Chemicals

Green-certified Products Now Competitive in Cost and Performance

By Mike Sawchuk



US ≈ 650
MILLION

CLEANING STAFF SHOULD BE properly trained on how to use, dilute and avoid mixing certain chemicals, but accidents happen. In Canada, it is estimated that approximately 65 people die each year as a result of cleaning chemicals and the number is growing.

"Cleaning is a dirty business," says Scot Case, Vice President of the Canada-based EcoLogo™ program. "The professional cleaning industry uses about five billion pounds of chemicals each year, and as many as one in three conventional cleaning chemicals contains ingredients known to cause human health and environmental problems."

For example, the Nova Scotia Department of Environment and Labour's (NSDEL) Pollution Prevention Plan reports that approximately 20% of the injuries it tracks involve serious burns to the eyes or skin and more than 12% are the result of breathing in cleaning chemicals. Additionally, it is believed chemicals are responsible for approximately 8% of non-vehicular emissions of volatile organic

compounds (VOCs), which can trigger respiratory problems such as asthma, especially in children and those with weakened immune systems.

ADDRESSING ENVIRONMENTAL AND HEALTH CONCERNS

Chemicals in cleaning products may act as endocrine disruptors that mimic growth and behavioural hormones. These can harm the quality of water resources and aquatic and terrestrial life when they are washed down drains, and when they are released during manufacturing, mixing and packaging of the cleaning solutions.

Non-biodegradable substances will continue to accumulate in the environment. A 2002 United States Geological Survey study found that 69% of streams sampled contained persistent detergent metabolites and 66% contained disinfectants.

In recent years, the facility managers of most private and public buildings in Canada have investigated safer, green-certified cleaning chemicals, and many have switched over completely to more environ-

mentally responsible products. Many more green-certified cleaning products are available today, but going green has been a relatively slow process, partly due to the higher cost of some of the earliest available green products.

Industry observers now maintain that product development advances have resulted in lower prices and better performance. "They work just as well or better than traditional chemicals and do not cost any more," Case says. "They are also readily available from many manufacturers."

Green cleaning products can be defined as those that have a reduced effect on human health and the environment over their full life cycle when compared with competing products used for the same purpose. Certification means that the product has been analyzed by an independent, third party organization and determined to meet specific standards, safety requirements and criteria now recognized as environmentally preferable.

DILUTION IMPERATIVE FOR SAFE USE

Just like conventional cleaning products, all green cleaning products have Material Safety Data Sheets (MSDS) that outline possible hazards from using the product, as well as first aid measures. With green products, these hazards are often the result of using the products improperly and, most typically, from not diluting in accordance with the manufacturer's recommendations.

Many facilities now install auto-dilution systems as part of their green cleaning programs. Proper dilution is assured, preventing injuries and also averting waste.

Environmentally preferable cleaning products do not contain the harmful ingredients found in conventional products so their overall safety is considered much greater, while helping to reduce negative environmental effects.

"Switching to safer cleaning [products] can improve indoor air quality, reduce absenteeism and increase productivity and morale," Case asserts.

Notably, a study by U.S. government purchasers found that switching to green cleaning chemicals, along with enhanced ventilation and overall cleaning, resulted in increased worker productivity of between 0.5 and 5%. "This translates into an annual productivity gain of US\$30 billion to US\$150 billion," Case notes.

Nevertheless, even the safest cleaning chemicals can be dangerous if there is inadequate employee training. Typically, 90% of a cleaning budget covers labour costs, with only 2 to 5% related to chemical costs.

WARNING SIGNS

Cleaning chemicals are just one of many types of chemicals typically used in a facility. No matter what type of chemical, there are often warning signs that a product might no longer be safe to use. Inspect the inventory regularly and look for the following:

- Discolouration of the label or container. This often means that another chemical has leaked onto the container.
- Crystals forming around the cap. However, for some chemicals, such as potassium chloride solutions, this is not abnormal.
- A bulging container or cap.
- A container that has a caved-in appearance or shows signs of corrosion.
- A film or precipitation on the container. This is often a red flag that something may be wrong with the product.
- A bottle that is warm to the touch.
- A chemical that has changed colour or has a strange odour. This may mean it has become contaminated.
- A container with an expiration date that has passed.

"If the workers are not using the products properly – whether they are green or not – facilities could be spending more than necessary on labour as well as chemical costs because of inefficient cleaning practices [and also] risking worker injuries," says Stephen Ashkin, Executive Director of the Green Cleaning Network and President of the Ashkin Group.

Astute distributors of janitorial and sanitation supplies are including training as an add-on service when working with a facility

that is switching over to green cleaning. This is simply good business in many cases since proper use of the products is key to the long-term success of the cleaning program. ■■

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