DID YOU KNOW?  
FACTS ABOUT DISINFECTING WIPES

Roughly one in five Californians spend their day at school, including students, teachers, and other staff. Throughout the day, they may be unnecessarily exposed to chemicals commonly found in conventional cleaning products—chemicals that have been linked to asthma and other respiratory problems, cancer, reproductive and neurological harm, and hormone disruption. Additionally, these products are known to have negative impacts on the environment, including contributing to water pollution, smog, and ozone depletion.

PAUSD adopted chemical guidelines to help reduce the use of hazardous cleaning products. This fact sheet focuses on a cleaning product that should not be used by school sites: disinfecting wipes. All disinfectants, including those used in wipes, are pesticide products containing chemicals that may be harmful to human health.

Most commonly used disinfecting wipes contain quaternary ammonium compounds, or asthma-causing substances, requiring surfaces to be wiped with a cloth and water after use. Otherwise, chemical residue to which students and others can be exposed remains on the surface.

Asthma: A Concern for Students and Staff
One in eight children in California have been diagnosed with asthma. It is the leading cause of school absences due to chronic disease nationwide. Asthma is also an occupational health concern for school employees, including teachers, instructional aides, and custodians. Custodians have one of the highest rates of occupational asthma in the country.

Why are disinfecting wipes a particular concern for those with asthma?
Studies link conventional cleaning products, including many disinfecting products, to both the cause of asthma and the trigger of asthma attacks. Asthma can be caused by a single high exposure to an irritating chemical or by small exposures over time. Researchers estimate that 30% of childhood asthma is attributable to chemical exposures.

What other environmental problems are there with disinfecting wipes?
Disinfecting wipes, which cannot be composted, create a waste product that is contaminated with a disinfectant, disposed of in our landfills, and may cause groundwater contamination through landfill leachate.

Think a surface needs disinfecting? Just ask one of your school custodians! They are trained to safely use disinfecting products.
What is the safest way to reduce germs?
Cleaning surfaces well can reduce germs by 99% or more without the use of disinfectants. Microfiber cloths can dramatically improve the effectiveness of cleaning.

All disinfectants are pesticide products that require registration with the U.S. Environmental Protection Agency. As such, they only should be used when necessary. In general, limiting disinfectants to high-touch points, such as doorknobs and hand railings; bathroom surfaces; and potentially infectious body fluids also can reduce product use without compromising public health.

The overuse and misuse of disinfectants is a growing public health concern. Studies have found that the use of some disinfectant products is creating microbes that can mutate into forms that are resistant to particular disinfectants or that become superbugs. These resistant germs also are harder to kill with antibiotics. Incorrectly using a disinfectant may kill the weaker germs but allow the more resistant germs to survive.

How easy is it to use disinfectants correctly? Not as easy as it appears.
Disinfectants cannot work on dirty surfaces. Cleaning the surface is a necessary first step to remove the debris that may act as a shield for the viruses and bacteria. In addition, if the surface is not wet with the disinfectant for the entire “dwell” or contact time (4 minutes for typical Clorox and Lysol disinfecting wipes), then the surface is not being disinfected.

Disinfecting wipes: less convenient than you might think.
Manufacturer instructions for using disinfecting wipes include hand washing after use, wearing safety glasses, and rinsing the disinfected surfaces with water if they may come into contact with food, either directly or indirectly.

What else should I know?
Effective July 1, 2016, all school district staff using a disinfectant, including wipes, must attend an annual training in integrated pest management. In addition, California hazard communication regulations require employers to provide information to their employees about the hazardous chemicals to which they may be exposed. This law applies to the use of cleaners, sanitizers, and disinfectants, as well as other chemical products. Chemical-based products used at PAUSD sites without knowledge by the district office may raise compliance issues.

Most people use disinfecting wipes simply to clean a surface. Instead, if you need to clean a surface:
- Use a paper towel and water, composting the paper towel after use.
- Ask your school custodian for a reusable cloth and PAUSD-approved cleaning product.
- Purchase one of the following non-disinfecting wipes, which contain the least-toxic ingredients of such products on the market: The Honest Wipes or Clean Well All-Natural Hand Sanitizing Wipes.

For more information, please contact Rachel Gibson, PAUSD Sustainable Schools Committee Member, at Rachel.Gibson@post.harvard.edu.
References


Guide to the California Hazard Communication Regulation, Education Unit, Cal/OSHA Consultation Service, California Department of Industrial Relations, Revised/Updated May 2012.
Product Information Example

The Clorox Company
1221 Broadway
Oakland, CA, 94612
Tel. (510) 271-7900

Material Safety Data Sheet

Product: CLOROX® DISINFECTING WIPES – FRESH SCENT
Description: CLEAR, COLORLESS, THIN, FRAGRANCED LIQUID ABSORBED INTO WHITE, NON-WOVEN WIPES

<table>
<thead>
<tr>
<th>Other Designations</th>
<th>Distributor</th>
<th>Emergency Telephone Nos.</th>
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<tbody>
<tr>
<td>EPA Reg. No. 5813-79</td>
<td>Clorox Sales Company 1221 Broadway Oakland, CA, 94612</td>
<td>For Medical Emergencies, call 1-800-466-1014. For Transportation Emergencies, call 1-800-424-9300 (Chemtrec).</td>
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II Health Hazard Data
May cause moderate eye irritation. Prolonged skin contact may result in minor irritation. No medical conditions are known to be aggravated by exposure to this product.

FIRST AID:
EYE CONTACT: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses. If present, after the first 5 minutes, then continue rinsing eye. If irritation persists, call a doctor.

III Hazardous Ingredients

<table>
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<tr>
<th>Ingredient</th>
<th>Concentration</th>
<th>Worker Exposure Limit</th>
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<tbody>
<tr>
<td>n-Alkyl (66% C10, 32% C12) dimethyl ethylene amine</td>
<td>0.1 - 0.2%</td>
<td>Not established</td>
</tr>
<tr>
<td>n-Alkyl (66% C10, 32% C12) dimethyl ethylene ammonium chloride</td>
<td>CAS # 88909-78-9</td>
<td></td>
</tr>
<tr>
<td>n-Alkyl (66% C9, 32% C12) dimethyl ethylene amine</td>
<td>0.1 - 0.2%</td>
<td>Not established</td>
</tr>
</tbody>
</table>

IV Special Protection and Precautions

Hygienic Practices: Wash hands after direct contact.

Engineering Controls: Use general ventilation to minimize exposure to product mist.

Personal Protective Equipment: Wear safety glasses. Wear rubber or neoprene gloves for sensitive skin or if there is the potential for repeated or prolonged skin contact. In situations where exposure limits may be exceeded, a NIOSH-approved respirator is advised.

Avoid contamination of food. A potable water rinse is required for surfaces that may come into contact with food. Not for cleaning or sanitizing skin. Do not use as a diaper wipe or for personal cleansing.

Manufacturer instructions