

Cleaning our schools: Getting products good for our health



NJEA 2019 Convention
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(NJ WEC)

Workshop goals

By the end of this workshop, you will have:

- ✓ made a body map to identify symptoms, especially from chemicals
- ✓ *discussed the use of cleaning products in your school*
- ✓ reviewed cleaning product data sheets using on-line databases
- ✓ *discussed “informed substitution”*
- ✓ practiced making the case for informed substitution of cleaning products in your school



Introductions

Please introduce yourself, giving:

- ☐ name
- ☐ *school/district*
- ☐ job
- ☐ *one question you have about cleaning chemicals*

Where does it hurt?

1. In your group, use the flip chart to draw the front and back of a body (using a dark colour).
2. With markers, answer these questions, using the colour used for each one:
 - ☐ *Where do you have aches and pains?*
 - ☐ *Where does your stress show up?*
 - ☐ *Where do you have other symptoms (e.g., rashes, cuts and scrapes)*
3. Show us your results! Post them, please.

The big problems:

- Chemicals don't have to be tested for health effects before they're put on the market
- Products don't have to be tested for health effects before they're on the market (especially for how the ingredients act together)
- Most chemicals in commerce today in the United States have not been tested, especially for long-term effects (e.g., cancer, reproductive harm, damage to body systems)
- Workers are often the canaries, but the last people we worry about when it comes to toxics



What's "cleaning"?

CLEANER:

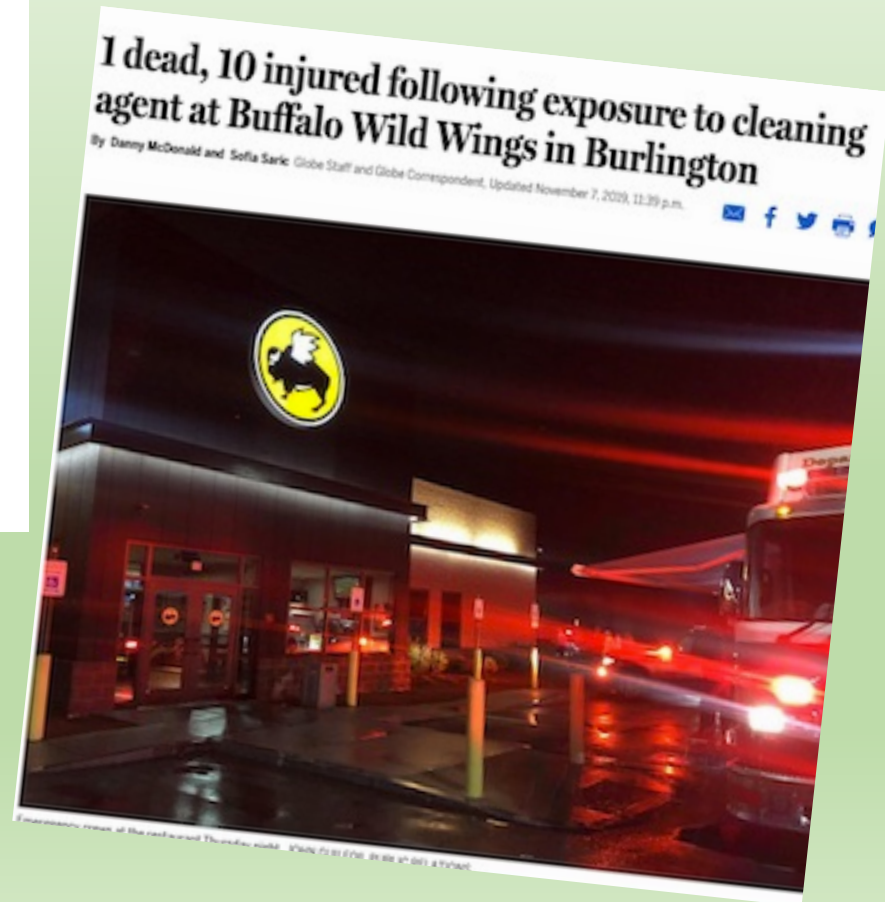
Removes germs, dirt, and impurities from surfaces or objects. Works by using soap/detergent, water and friction to physically remove dirt and germs from surfaces. Cleaning before disinfecting reduces spreading infection more than disinfecting alone.

SANITIZER:

Reduces germs on surfaces to levels considered safe for public health (usually 99.99%). Products must be EPA registered.

DISINFECTANT:

Destroys almost all infectious germs, when used as the label directs on a surface. No effect on dirt, soil, or dust. Should be used where required by law, in high-risk and high-touch areas, or in case of infectious disease. Products must be EPA registered.



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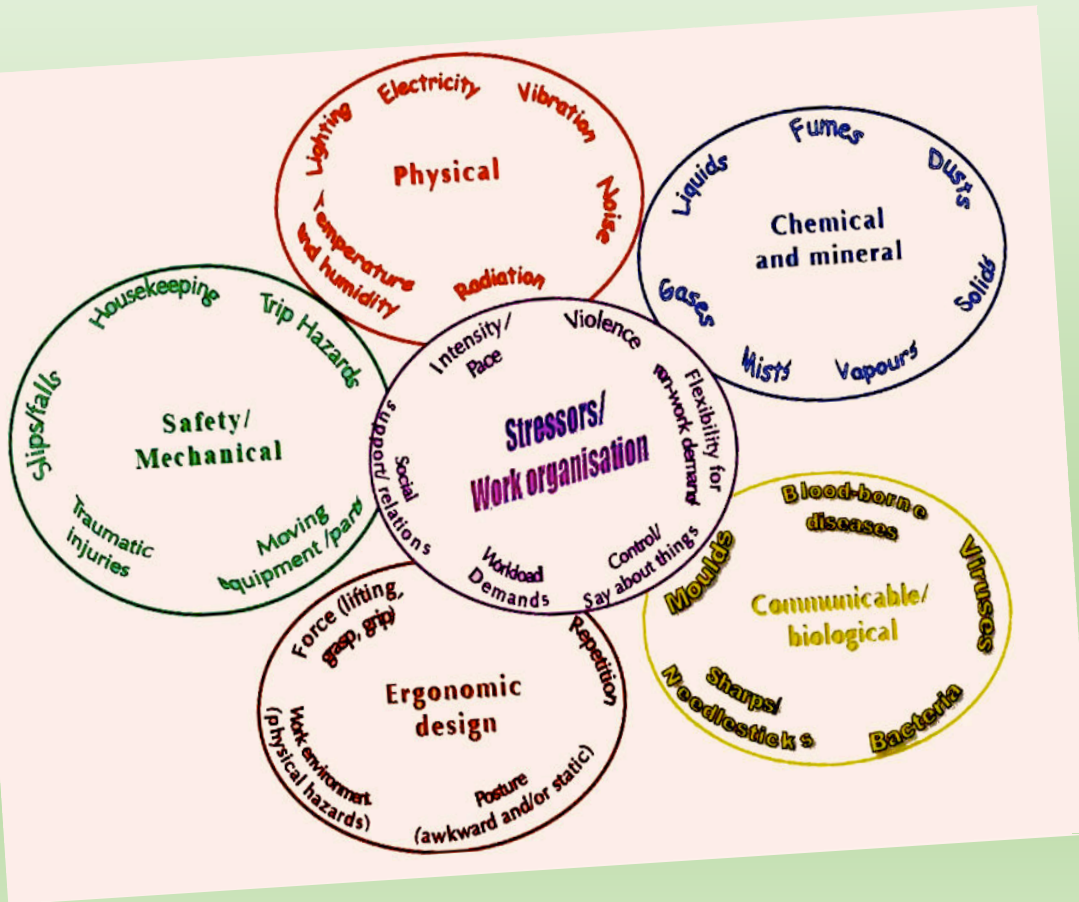
Use with Auto-Chlor System automatic dispensing equipment, to feed product directly from container to dishwashing machine.

- BURLINGTON — A Buffalo Wild Wings employee died and 10 other people were taken to the hospital Thursday night after being exposed to a cleaning agent in what authorities called a “serious hazmat material incident” at the restaurant.
- The employee, a man, **was trying to “squeegee” the chemical out of the kitchen area, when he apparently inhaled the substance** and was taken to Lahey Hospital, where he died, Interim Fire Chief Michael Patterson said.
- The cleaning agent, **Super 8**, contains a **high concentrate of chlorine**, Patterson said. He said it was **unclear if that substance mixed with another chemical**.
- **“It is a common product,”** he told reporters at the scene.
- Ten other people, including two patrons, experienced other symptoms, including shortness of breath and runny eyes, and took themselves to the hospital, Patterson said. Nine drove to nearby Lahey Hospital, while one person went to a hospital in Lowell, he said.
- “I do not believe that any are in serious condition at this time,” Patterson said, speaking shortly before 10 p.m.
- The accident occurred after an employee opened a bottle of the cleaner and was overcome with nausea, Patterson said.
- That employee went outside for air. Another employee tried to remove the chemical from the area, before he became sick and later died, according to Patterson.

What makes it hurt?

(What are the hazards?)

Look at the body map(s).



What problems do you have, or know about, related to cleaning chemicals in your school?

What kinds of hazards are they?

What's (not) easy to see?

What makes them worse?

How do you find hazards?

- *How do you look for hazards?*
- **Today, we're going to:**
 - ☐ use databases about chemical hazard and “informed substitutes”
 - ☐ review hand-outs about using surveys



What about these data sheets?

Why a data sheet?

What's supposed to be on one?

What do the words mean? See the hand-out about physical and chemical properties

Auto-Chlor SYSTEM Super 8 SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Super 8
Product Code: A0034
Recommended Use: Sanitizer
Company: Auto-Chlor System
746 Poplar Avenue
Memphis, TN 38105
Questions/Comments: 901-579-2300
Emergency Telephone Numbers: MEDICAL: 1-866-923-4946 (PROSAR) SPILLS: 1-800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

Classification: DANGER
Hazard: Category 4
Hazard: Category 1
Hazard: Category 1

PRECAUTIONARY STATEMENTS
P264: Wash hands thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P280: Wear eye protection and protective gloves

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	% COMPOSITION
Hydrochloric acid	7681-52-9	8.0 - 10.0

4. FIRST AID MEASURES

Swallowed, rinse mouth. Do NOT induce vomiting.
Inhaled, remove person to fresh air and keep comfortable for breathing.
On skin, remove immediately all contaminated clothing. Rinse skin with water.
Wash contaminated clothing before reuse.
In eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center.

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ZepInc

SAFETY DATA SHEET

ZEP BIG ORANGE 1 CS 12 QTS

Version 3.0 Revision Date 10/22/2018 Print Date 10/30/2019

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name: ZEP BIG ORANGE 1 CS 12 QTS
Material number: 00000000000041501
Manufacturer or supplier's details: Zep Inc.
Company: 350 Joe Frank Harris Parkway, SE
Address: Emerson, GA 30137
Telephone: 404-352-1680

Emergency telephone numbers

For SDS Information	Compliance Services 1-877-428-9937
For a Medical Emergency	877-541-2016 Toll Free - All Calls Recorded
For a Transportation Emergency	CHEMTREC: 800-424-9300 - All Calls Recorded. In the District of Columbia 202-483-7016

Recommended use of the chemical and restrictions on use
Recommended use: Degreaser

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Colour	clear, orange
Odour	strong

GHS Classification

Flammable liquids	Category 3
Skin irritation	Category 2
Eye irritation	Category 2A
Skin sensitisation	Category 1
Aspiration hazard	Category 1

GHS label elements

Hazard pictograms

Signal word: Danger

Hazard statements

- H226 Flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.

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Is it the whole truth?

- Some manufacturers are using the “**weight of evidence**” to remove hazardous ingredients, using the phrase:

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Calcium Carbonate	16.94	1317-65-3
Kaolin	12.14	1332-58-7
Talc	10.33	14807-96-6
Titanium Dioxide	4.81	13463-67-7
Anatase (TiO2)	0.15	1317-70-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

- In another example, Chevron Phillips’ 2014 data sheets for **styrene** differ from country to country, all apparently prepared on the same day by the same department, listing different GHS health hazard categories:
 - China 4 (all acute)
 - Japan 14 (including reproductive, cancer -- they have lists)
 - Korea 10 (including long-term effects)
 - U.S. 9 (not cancer, although the 2011 one said it met the GHS criteria for causing cancer, no lists)

The bottom line?

- ✓ Be skeptical, check out the hazards yourself, look especially for:
 - carcinogens, mutagens, reproductive hazards (CMRs),
 - endocrine disrupting chemicals (EDCs),
 - neuro, developmental and immune toxins,
 - allergens/asthmagens, sensitisers (respiratory and skin),
 - skin and eye irritants,
 - persistent, bio-accumulative and toxic substances (PBTs) affecting the environment, and
 - acute and chronic aquatic toxins.
- ✓ Ask questions when you see the “no additional ingredients” disclaimer, or percentage don’t add up;
- ✓ Check for “old” and international data sheets and to see if Canadian data sheets have the same information as U.S. ones (e.g., around trade secrets, fragrances); and
- ✓ Remember that many chemicals aren’t tested for long-term effects and even fewer products are tested for what happens when the chemical ingredients are mixed together (although the REACH rules in Europe are forcing pre-market testing in some cases)

3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent	WHMIS 2015/ GHS Classification
Aliphatic Hydrocarbon	64742-47-8	50-70%	Flammable Liquid Category 3 Aspiration Toxicity Category 1 Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)
Petroleum Base Oil	64742-56-9 64742-65-0 64742-53-6 64742-54-7 64742-71-8	30-35%	Not Hazardous
Carbon Dioxide	124-38-9	2-3%	Simple Asphyxiant

Which products should we check out?

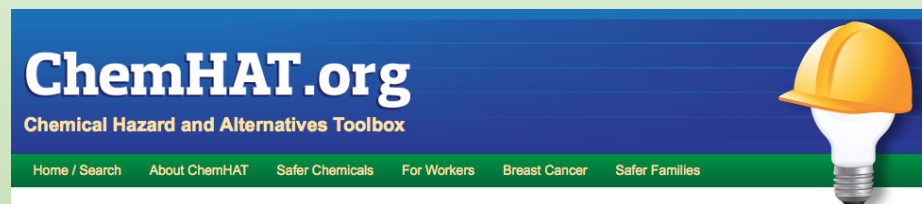
- ☐ [Zep Big Orange](#)?
- ☐ [WD-40](#)?
- ☐ something you use?



Use these resources

See the hand-out

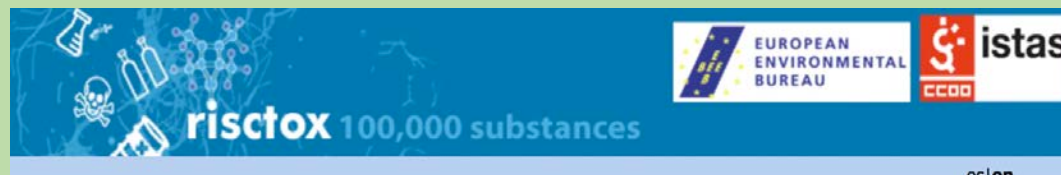
☐ ChemHAT



☐ Pharos



☐ Risctox

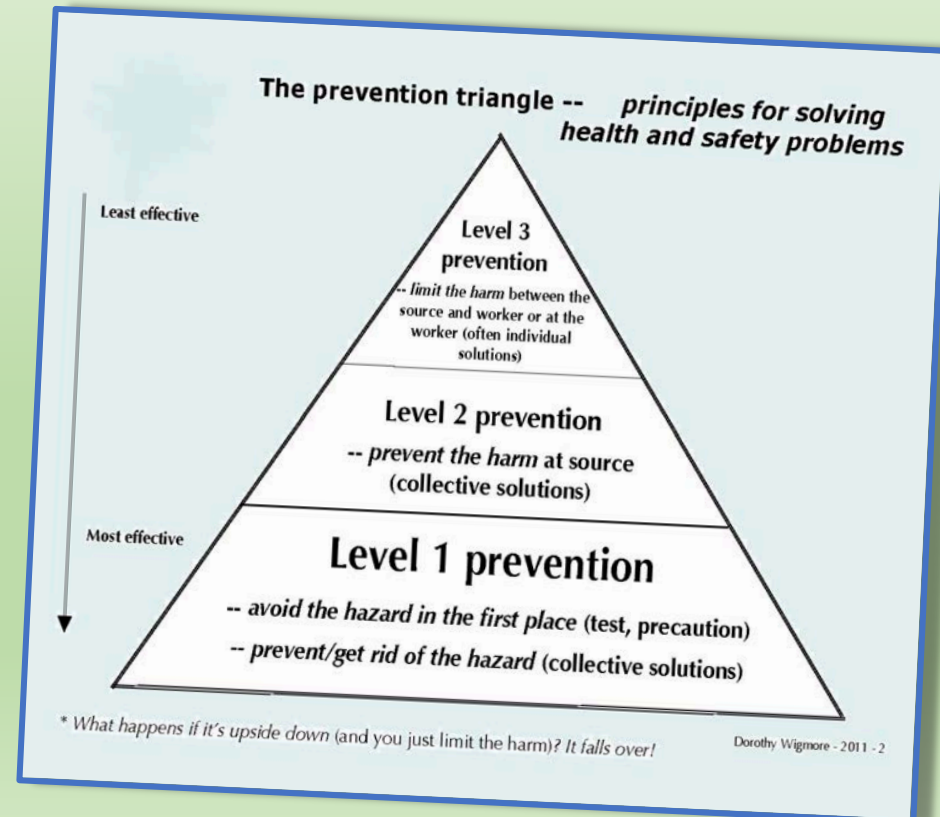


What fixes the hazards?

What are the goals of occupational health?

Prevention pays!

Adapting jobs to workers' physical and psychological needs!



What about informed substitutes?

Look up options:

- ☐ Spot (UL Ecologo -- <https://spot.ul.com/>)



- ☐ Green Seal <https://www.greenseal.org/products-services/>



- ☐ San Francisco Environment Dept.

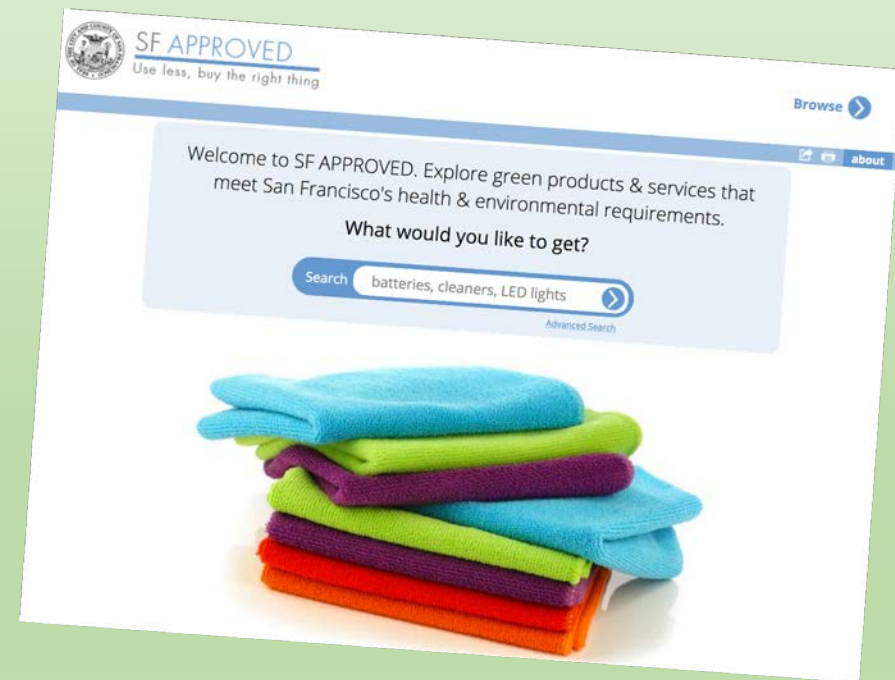


Consider microfiber materials

Microfiber products are a great informed substitute for toxic chemical cleaners. They act like dust magnets, collecting more dust and germs than string mops. They need to be laundered and dried separately to be effective.

The cloths or mops:

- Used dry, are very effective for dusting.
- With plain water, can get rid of 99% of bacteria (so they're great for disinfecting and sanitizing).
- Require 95 percent% less water and cleaning chemicals (especially if a chemical is sprayed directly onto the cloth).
- Clean 10 percent% more in the same time.
- Last five to 10 times longer and cost less.
- Cause fewer worker injuries than traditional methods (since custodians don't have to lift heavy mop buckets).



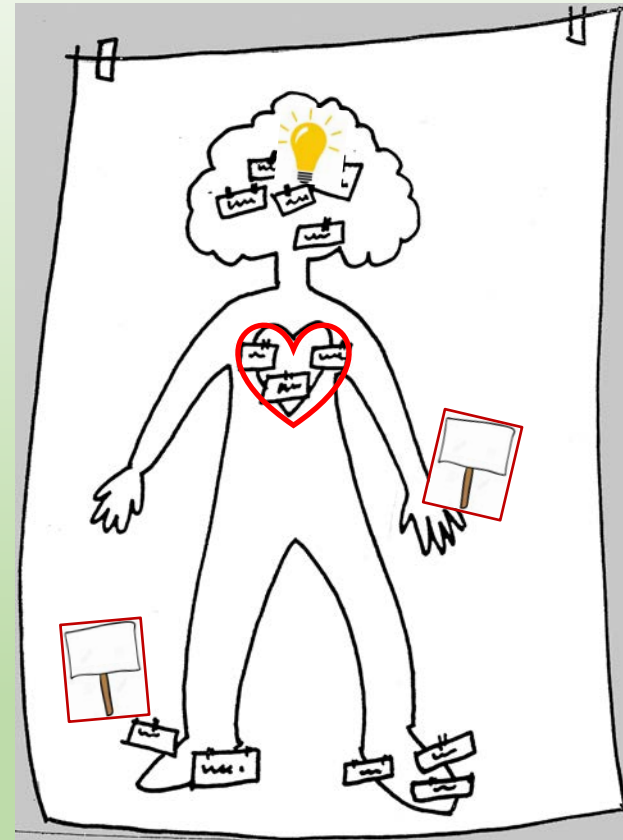
How did we do?

What are your questions?

What next steps could you take?

• *How did we do? Evaluation*

- ☐ Use one post-it to answer each question:
 - *What is one idea you got from the workshop?*
 - *How do you feel after the workshop?*
 - *What is one thing you will do as a result of the workshop?*
- ☐ Put your post-its on the "body maps" by the exit, where they belong (head, heart, hands/feet)



Thanks
muchly

