



How **Green** is your **Clean?**

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Disclaimer

Any opinions, findings, and conclusions or recommendations expressed in this presentation and/or discussion do not necessarily reflect the views of the New York State Pollution Prevention Institute (NYSP2I), the New York State Department of Environmental Conservation (NYSDEC), or the US Environmental Protection Agency (EPA).

Agenda

- Reading Product Labels
- Common Chemicals of Concern
- Eco-labels & purchasing tips
- Alternatives





Areas of Concern

- There are 30 areas of concern in the US Great Lakes
- These are places where chemical contamination of sediments from the lakes has seriously endangered the quality of life for people and wildlife
- There are 6 AOCs in NYS
 - Buffalo River
 - Eighteen Mile Creek
 - Niagara River
 - Oswego River/Harbor
 - Rochester Embayment
 - St. Lawrence River at Massena



"Safer Chemicals Healthy Families." *Failing the Great Lakes*. (2009)



Beneficial Use Impairments

Buffalo Area	Syracuse Area	Rochester Area	Massena Area
Buffalo River	Oswego River/Harbor	Rochester Embayment	St. Lawrence River
1.Restrictions on fish and wildlife consumption 2.Fish tumors or other deformities 3.Degradation of aesthetics 4.Degradation of benthos 5.Restriction on dredging activities 6.Loss of fish and wildlife habitat	1.Restrictions on fish and wildlife consumption 2.Degradation of fish and wildlife populations 3.Loss of fish and wildlife habitat	1.Restrictions on fish and wildlife consumption 2.Eutrophication or undesirable algae 3.Restrictions on drinking water consumption, or taste and odor 4.Degradation of fish and wildlife populations 5.Beach closings 6.Degradation of aesthetics 7.Bird or animal deformities or reproduction problems 8.Added costs to agriculture or industry 9.Degradation of benthos 10.Degradation of phytoplankton and zooplankton populations 11.Restriction on dredging activities 12.Loss of fish and wildlife habitat	1.Restrictions on fish and wildlife consumption 2.Loss of fish and wildlife habitat
EighteenMile Creek			
1.Restrictions on fish and wildlife consumption 2.Degradation of benthos 3.Restriction on dredging activities			
Niagara River			
1.Restrictions on fish and wildlife consumption 2.Fish tumors or other deformities 3.Degradation of benthos 4.Restriction on dredging activities 5.Loss of fish and wildlife habitat			

US EPA, Great Lakes Areas of Concern, <http://www.epa.gov/glnpo/aoc/>



Why is it **important** to **Green** Your **Clean**?

Health

Many ingredients in cleaning products can be hazardous to your health

- Skin, nose, throat, and eye irritation
- May interfere with, mimic or block hormones
- Contribute to or cause asthma

Environment

Products are released to the environment during normal use through evaporation of volatile components and rinsing down the drain of residual product from cleaned surfaces, sponges, etc.

- A May 2002 nationwide study by the U.S. Geological Survey (USGS) showed that nearly **70% of the streams tested contained breakdown products of detergents, while 66% contained disinfectants³**

US EPA, Greening Your Purchase of Cleaning Products: A Guide For Federal Purchasers, <http://www.epa.gov/epp/pubs/cleaning.htm>

³U.S. Geological Survey (2002). Emerging Contaminants Project. May 2002. <http://toxics.usgs.gov/regional/emc/index.html>



Cleaning Product Regulations

- Cautionary labeling on immediate container and outer containers of hazardous household substances to:
 - help consumers handle and use the products safely
 - give consumers information about immediate first aid steps to take if an accident occurs
- The EPA regulates antimicrobial cleaners, disinfectants, and other products that kill organisms as pesticides



US EPA, Pesticides, www.epa.gov/pesticides/about/types.htm



Label Requirements

- Name and place of business of the manufacturer, packer, distributor or seller
- Common or usual name or chemical name
- Signal words
- Precautionary measures to follow
- Instructions for first aid treatment when appropriate
- Instructions for handling and storage
- Keep out of the reach of children or its practical equivalent
- Certain substances declared to be caustic poisons

16CFR1500.129 Substances named in the Federal Caustic Poison Act,
Federal Hazardous Substances Control Act, 15USC1261



Product Labels: Signal Words

- **Toxic**: poisonous or lethal when ingested, touched and/or inhaled
- **Danger**: extremely flammable, corrosive or highly toxic
 - One taste to one teaspoon is fatal to a 180-pound male
- **Warning** or **Caution**: all other hazardous products
 - Caution: One ounce to one pint may be harmful or fatal to a 180-pound male
 - Warning: One teaspoon to one ounce may be harmful or fatal to a 180-pound male

Federal Hazardous Substances Act, 15USC1251



Cleaners Used Around the House

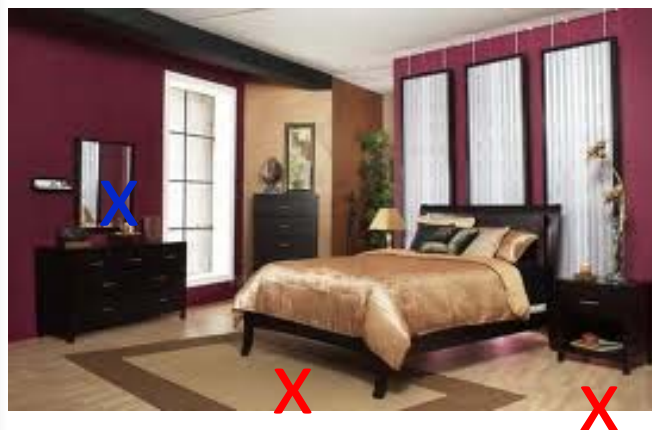


Toilet Bowl Cleaners, Mildew Removers,
Air Fresheners, Drain Openers



Oven Cleaners, Dishwashing Soap

Glass & Surface Cleaners Disinfectants Floor & Carpet Cleaners



Furniture Polish, Laundry Detergents



Stain Removers

Image source: Discovery Health, <http://health.discovery.com/tools/childproof/childproof.html>

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Volatile Organic Compounds (VOCs)

Chemicals that are emitted from solids or liquids at room temperature & contaminate air

- Concentrations of many VOCs are consistently higher indoors (up to ten times higher) than outdoors
- Emitted by a wide array of products including: paints, paint strippers, and other solvents; wood preservatives; **aerosol sprays; cleansers and disinfectants; moth repellents and air fresheners**; stored fuels and automotive products; hobby supplies; dry-cleaned clothing

US EPA, An Introduction to Indoor Air Quality (IAQ), Volatile Organic Compounds, <http://www.epa.gov/iaq/voc.html>



Volatile Organic Compounds (VOCs)

Health effects

- Vary greatly from highly toxic to no known health effects & vary between chemicals
- Eye and respiratory tract irritation, headaches, dizziness, visual disorders, and memory impairment are among the immediate symptoms that some people have experienced soon after exposure to some organics
- Effects may include: eye, nose, and throat irritation; nosebleed; headache, loss of coordination, nausea; allergic skin reaction; damage to liver, kidney, and central nervous system
- Some organics can cause cancer in animals; some are suspected or known to cause cancer in humans
- Long term exposure can cause sick building syndrome

Actions you can take

- ✗ Use products according to manufacturer's directions and meet or exceed any label precautions
- ✗ Make sure you provide plenty of fresh air when using these products.
- ✗ Throw away unused or little-used containers safely; buy in quantities that you will use soon.
- ✗ Keep out of reach of children and pets.
- ✗ Never mix household care products unless directed on the label.

US EPA, An Introduction to Indoor Air Quality (IAQ), Volatile Organic Compounds, <http://www.epa.gov/iaq/voc.html>



Aerosol Products

- Propellants propel the pressurized contents out of a container
 - n-butane: VOC, flammable
 - Isobutane: VOC, flammable
 - Dimethyl ether: flammable
- Mists – small particles can easily enter your lungs
- Aerosol cans cannot be recycled
 - Empty cans of non-hazardous products can typically be throw in the trash
 - Cans with remaining product typically disposed of as household hazardous waste
- **Safer alternative:** pump sprays



Air Fresheners

- Aerosol air fresheners typically contain
 - Formaldehyde: respiratory irritant and suspected carcinogen
 - aerosol propellant: flammable, VOCs
 - petroleum distillates: irritate skin, eyes, throat
 - p-dichlorobenzene: disinfectant, may be a carcinogen
 - Fragrance
- Usually highly flammable and strong irritant to eyes, skin, and throat
- **Safer alternative:** baking soda

US EPA, Learn About Chemicals Around Your House, <http://www.epa.gov/kidshometour/products/airf.htm>



Fragrance

What is the concern?

- We are exposed to a lot of scented products – personal care, cleaners, air fresheners, laundry soap, etc.
- Usually made up of a blend of chemicals
- May be from natural or synthetic sources
- **Breathe it in** – perfume, cleaners, air freshener, scented candles, other airborne products
- It is **absorbed through the skin** – shampoo, soap, lotion, other personal care products, laundry soap on clothes & bed sheets



EPA <http://www.epa.gov/oppt/existingchemicals/pubs/actionplans/phthalates.html> ; Campaign for Safe Cosmetics, <http://safecosmetics.org/article.php?id=643>



Fragrance

Chemicals typically found in fragrance

Phthalates

- Act as solvents and carriers for those chemicals that create the scent in a fragrance
- Shown to cause reproductive and developmental harm in laboratory animals, and are linked to similar impacts in humans
- Linked to diabetes and asthma, potential risks to reproductive system & thyroid
- *EPA is concerned about phthalates because of their toxicity and the evidence of pervasive human and environmental exposure to these chemicals*

Synthetic Musks

- Man-made chemicals produced to replicate musk scents originally obtained from musk deer & musk ox
- Don't break down in the environment and can accumulate in our bodies
- Potential hormone disruptors and may break down the body's defenses against other toxic chemical exposure

EPA <http://www.epa.gov/oppt/existingchemicals/pubs/actionplans/phthalates.html> ; Campaign for Safe Cosmetics, <http://safecosmetics.org/article.php?id=643>



Fragrance

What you can do

- ✗ Avoid products with “-phthalate”, “musk”, “parfum”, or “fragrance” as an ingredient
- ✗ Avoid **air fresheners and scented candles**
- ✓ Choose **fragrance free products** labeled “free of perfumes and dyes,” “fragrance free”, or “unscented”
- ✓ Use **homemade unscented** cleaners
- ✓ Choose **naturally scented products**
- ✓ Use **baking soda** to naturally absorb odors





Sodium hypochlorite

Bleach is a pesticide

- Disinfectant to kill germs
- Fungicide to kill fungi and molds
- Antimicrobial pesticide to kill disease causing microorganisms
- Liquid bleach in the bottle is a 5.25% sodium hypochlorite solution, other products may have lower/higher concentrations



US EPA, Learn About Chemicals Around Your House, Chlorine Bleach, <http://www.epa.gov/kidshometour/products/bleach.htm>



Sodium hypochlorite

Health effects

- Can cause severe skin, nose, throat, and eye irritation & chemical burns to broken skin
- Contributes to reactive airways dysfunction syndrome (RADS), a type of asthma caused by irritating or corrosive substances



products that contain bleach

Actions you can take

- ✗ NEVER mix ammonia containing products with those that contain chlorine bleach!
- ✗ Avoid cleaning with chlorine-based products, especially if you or your children have asthma or chronic lung or heart problems.
- ✗ If you do use cleaning products that contain chlorine, wear gloves to avoid direct contact with skin, and provide plenty of ventilation by opening windows.

US EPA, Learn About Chemicals Around Your House, Chlorine Bleach, <http://www.epa.gov/kidshometour/products/bleach.htm>



Quaternary Ammonium Compounds

Disinfectants

Concerns

- Asthmagens – can aggravate existing asthma & attacks or cause asthma in those that don't have it
- Causes skin burns and eye damage
- Release formaldehyde
 - Carcinogen
 - Can cause skin & eye burns
- Very toxic to aquatic life

May be found in

- Spray cleaners
- Disinfectant/antibacterial cleaners
- Disinfecting air fresheners



products that contain quats

Environmental Working Group, SkinDeep database, <http://www.ewg.org/skindeep/>
Environmental Working Group, Guide to Healthy Cleaning, <http://www.ewg.org/guides/cleaners>



Triclosan

Antibacterial – kills or slows the growth of bacteria

Concerns

- Linked to thyroid function and emergence of bacteria resistant to antibacterial products, studies show it's interaction with hormone receptors
- Toxic to aquatic bacteria at levels found in the environment and inhibits photosynthesis in algae
- Chloroform is an impurity
 - Linked to cancer, birth defects, reproductive issues
 - May affect CNS, liver



December 2013 - The US FDA issued a proposed rule to **require manufacturers of antibacterial hand soaps and body washes to demonstrate their products are safe for long-term daily use and more effective than plain soap and water in preventing illness and the spread of certain infections.** If companies do not demonstrate such safety and effectiveness, these products would need to be reformulated or relabeled to remain on the market.

FDA, Triclosan: What Consumers Should Know, <http://www.fda.gov/forconsumers/consumerupdates/ucm205999.htm>

FDA News Release, FDA issues proposed rule to determine safety and effectiveness of antibacterial soaps, <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm378542.htm>

Environmental Working Group, Guide to Healthy Cleaning, <http://www.ewg.org/guides/cleaners>



Ammonia

Helps lift dirt and grime off surfaces so it can be wiped away

- Colorless gas with a very distinct odor – used in smelling salts
- Ammonia gas can be dissolved in water but once exposed to open air, liquid ammonia quickly turns into a gas
- Applied directly to soil on farm fields, and is used to make fertilizers for farm crops, lawns, and plants

May be found in

- Window cleaners
- Floor polishing waxes
- Drain cleaners
- Toilet cleaners
- Bathroom cleaners
- Multi-surface cleaners
- Glass cleaners
- Oven cleaners
- Stainless-steel cleaners

Agency for Toxic Substances & Disease Registry, ToxFAQs, <http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=10&tid=2>



Ammonia

Concerns

Environmental Effects

- Does not last very long in the environment as it's rapidly taken up by plants, bacteria, and animals
- Nutrient for plants and bacteria

Health Effects

- May irritate skin, eyes, throat, and lungs and cause coughing and burns
- People with asthma may be more sensitive to breathing ammonia than others
- Greater damage **if mixed with chlorine bleach** (or cleaners containing bleach) - **forms highly poisonous chloramine gas** that cause coughing, choking and lung damage
- Swallowing concentrated solutions can burn your mouth, throat, and stomach
- Splashing ammonia in your eyes can cause burns and even blindness



products that contain it

Actions you can take

- ✗ Ventilate rooms well when cleaning by opening windows and using fans.
- ✗ NEVER mix ammonia containing products with those that contain chlorine bleach!
- ✗ If symptoms develop from inhaling fumes, immediately discontinue use and get fresh air.

Agency for Toxic Substances & Disease Registry, ToxFAQs, <http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=10&tid=2>



Butyl Cellosolve

Used to remove grease & oils

AKA butyl glycol, 2-butoxy ethanol, & ethylene glycol monobutyl ether (EGBE)

Health Effects

- Animal studies indicate that it may cause reproductive damage
 - testicular damage, reduced fertility, death of embryos and birth defects
- Irritate eyes, nose, mouth, and throat & cause headache, dizziness, lightheadedness, confusion, and passing out
- May damage the liver & kidneys

May be found in

- Glass cleaners
- Oven cleaners
- General degreasers
- Spot removers
- Air fresheners
- Carpet cleaners



products that contain it

New Jersey Department of Health & Senior Services, Hazardous Substance Fact Sheet, 2-butoxy ethanol, <http://nj.gov/health/eoh/rtkweb/documents/fs/0275.pdf>

Funding provided by the US Environmental Protection Agency Great Lakes Restoration Initiative in the amount of \$104,192 and by the NYS Pollution Prevention Institute through a grant from the NYS Department of Environmental Conservation.



Alkylphenol ethoxylates & Nonylphenol ethoxylates

Nonionic surfactants or surface active agents that help other components of the cleaner penetrate grime

Alkylphenol ethoxylates	Nonylphenol ethoxylates
AKA APEs, nonoxynol, octoxynol, nonylphenol, octylphenol, nonylphenol ethoxylate, octylphenol ethoxylate	NPE breaks down into nonylphenol (NP), which is more toxic/hazardous than NPE
Found in some laundry detergents, tile cleaners, de-greasing cleaning products	Found in detergents, cleaners, degreasers, indoor pesticides, prewash spotters, dust control agents

Concerns

- Environment: **persistent in water**, moderately bioaccumulative, and **extremely toxic to aquatic organisms**
- Health: Highly **irritating and corrosive to the skin and eye**, potential **endocrine disruptors**

US EPA, Nonylphenol (NP) and Nonylphenol Ethoxylates (NPEs) Action Plan , August 2010, http://www.epa.gov/oppt/existingchemicals/pubs/actionplans/RIN2070-ZA09_NP-NPEs%20Action%20Plan_Final_2010-08-09.pdf

WHO/UNEP/ILO International Programme on Chemical Safety, Integrated Risk Assessment: Nonylphenol Case Study <http://www.who.int/ipcs/methods/Nonylphenol.pdf>
Lani, Andrea, comp. *Nonylphenol and Nonylphenol Ethoxylates*. Bureau of Remediation and Waste Management Maine Department of Environmental Protection, 2010.



Alkylphenol ethoxylates & Nonylphenol ethoxylates

Government Action

- 12/31/12: California banned APEs & NPEs from oven & grill cleaners, non aerosol general purpose cleaners & degreasers, and glass cleaners
 - Reasons for the ban:
 - APEs are toxic to aquatic species
 - APEs are hormone disruptors
 - Any potential additional use could adversely impact aquatic life
 - There are replacements available that are more effective and environmentally safe
- 9/11: USEPA alternatives assessment for NPE
 - Identified 8 alternative chemicals with less hazardous environmental & human health effects

State of California, Air Resources Board, Final Statement of Reasons for Rulemaking, Including Summary of Public Comments and Agency Responses, The Adoption of Proposed Amendments to the California Consumer Products Regulations, <http://www.arb.ca.gov/regact/2010/cp2010/cpfsor.pdf>
US EPA, DfE Assessment for NPEs, DRAFT, September 26, 2011, <http://www.epa.gov/dfe/alternatives-for-npes-v27-im.pdf>



Alkylphenol ethoxylates & Nonylphenol ethoxylates

Example products that contain them



Actions you can take

Look for products containing safer surfactants, such as:

- soap
- vegetable-based detergents (Green Seal requirement: does not contain alkylphenol ethoxylate)
- alcohol ethoxylates

Many alternative, cost competitive products are available.

US EPA, Nonylphenol (NP) and Nonylphenol Ethoxylates (NPEs) Action Plan, August 2010,

http://www.epa.gov/oppt/existingchemicals/pubs/actionplans/RIN2070-ZA09_NP-NPEs%20Action%20Plan_Final_2010-08-09.pdf

WHO/UNEP/ILO International Programme on Chemical Safety, Integrated Risk Assessment: Nonylphenol Case Study

<http://www.who.int/ipcs/methods/Nonylphenol.pdf>



Diethanolamine (DEA) & Monoethanolamine (MEA)

Surfactants that help other components of the cleaner penetrate grime also used to control pH

DEA

- White powder or colorless liquid
- Slight ammonia like odor

MEA

- Colorless, thick liquid or solid

May be found in

- Laundry detergent
- Floor strippers
- Oven cleaners
- Tub & tile
- Carpet cleaners



products that contain them

US EPA, Technology Transfer Air Toxics Website, <http://www.epa.gov/ttn/atw/hlthef/diethano.html>

NJ Department of Health & Senior Services, Hazardous Substance Fact Sheet, Ethanolamine <http://nj.gov/health/eoh/rtkweb/documents/fs/0835.pdf>

NJ Department of Health & Senior Services, Hazardous Substance Fact Sheet, Diethanolamine <http://nj.gov/health/eoh/rtkweb/documents/fs/0686.pdf>



Diethanolamine (DEA) & Monoethanolamine (MEA)

Potential health effects

DEA

- Can cause or worsen asthma
- Can irritate nose, throat, & skin
- Breathing can cause headache, nausea, and vomiting
- May cause skin allergy

MEA

- Can cause or worsen asthma
- Corrosive, contact can severely burn eyes & skin
- Breathing can irritate the nose, throat, & lungs causing coughing, wheezing, shortness of breath
- May cause skin allergy
- May damage liver and kidneys
- High exposure can affect the nervous system

Actions you can take

- ✗ Avoid products with DEA & MEA
- ✗ When using products that contain them,
 - ✗ Avoid skin contact
 - ✗ Use in well ventilated areas
 - ✗ Rinse areas of contact thoroughly after use

US EPA, Technology Transfer Air Toxics Website, <http://www.epa.gov/ttn/atw/hlthef/diethano.html>

New Jersey Department of Health & Senior Services, Hazardous Substance Fact Sheet, Ethanolamine <http://nj.gov/health/eoh/rtkweb/documents/fs/0835.pdf>

New Jersey Department of Health & Senior Services, Hazardous Substance Fact Sheet, Diethanolamine <http://nj.gov/health/eoh/rtkweb/documents/fs/0686.pdf>

Phosphates

found in laundry and dish washer detergents

2010 NYS Dishwasher Detergent and Nutrient Runoff Law restricts phosphorus in dishwasher detergents and fertilizers

Phosphorus from dishwasher detergents is carried to ponds, rivers, lakes and streams by wastewater discharges from septic systems and water treatment plants

Over 70 NY waterbodies are impaired due to phosphorous

Phosphorus in water has been linked to reductions in oxygen necessary for fish to breathe, algae that turn waterbodies green and algae and algae by-products that degrade drinking water

Removing phosphorus at wastewater treatment plants can cost up to \$20 per pound

Actions you can take:

Buy no phosphate dishwasher soap

Do not purchase dishwasher soap in other states for use in NY



NYSDEC, http://www.dec.ny.gov/docs/water_pdf/lawbanphos.pdf;

Funding provided by the US Environmental Protection Agency Great Lakes Restoration Initiative in the amount of \$104,192 and by the NYS Pollution Prevention Institute through a grant from the NYS Department of Environmental Conservation.



Greenwash

Misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service

1 Sin of the Hidden Trade-Off

2 Sin of No Proof

3 Sin of Vagueness

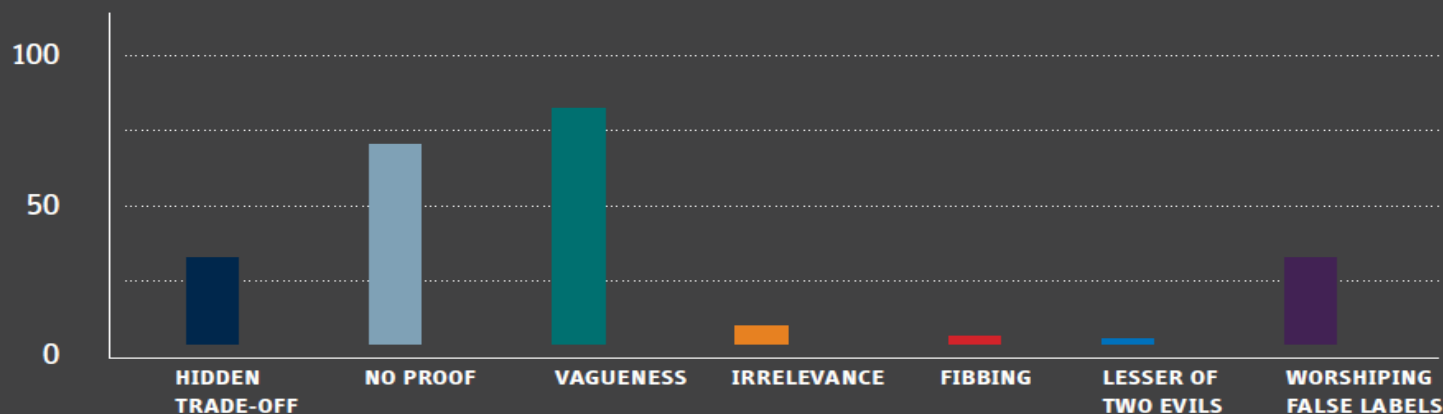
4 Sin of Worshiping False Labels

5 Sin of Irrelevance

6 Sin of Lesser of Two Evils

7 Sin of Fibbing

CLEANING PRODUCTS.
PERCENTAGE OF PRODUCTS COMMITTING EACH SIN



Terra Choice, The Sins of Greenwashing, <http://sinsofgreenwashing.org/>



What does it REALLY mean??

In many cases, manufacturers make claims that are neither independently verified nor regulated

Non-toxic

- ✓ No standard definition
- ✓ No organization independently verifying this claim
- ✓ Implies the product will not harm the user or environment

Natural

- ✓ No standard definition
- ✓ Implies product is made from all natural – no synthetic – ingredients
- ✓ Just because the ingredients are “natural” doesn’t mean the product is less toxic or won’t cause health effects

Environmentally friendly

- ✓ No standard definition
- ✓ No organization independently verifying this claim
- ✓ Implies the product has an environmental benefit

Biodegradable

- ✓ Can be misleading
- ✓ Implies a product will breakdown in a short period of time
- ✓ Has been loosely defined by the US government

Consumer Reports, Cleaners: green buying guide 1/11, <http://www.greenerchoices.org/products.cfm?product=greencleaning>



Third Party Certifications

- ✓ Identify products that **meets specified environmental performance criteria** or standards
- ✓ Awarded by a **third-party organization** to products or services that are determined to meet the criteria or standards
 - In contrast to “green” symbols or claim statements made by manufacturers and service providers
- ✓ **Voluntary** approach to environmental performance certification that is practiced around the world





Certified Organic Products

- USDA regulates “organic” as it applies to agricultural products through the National Organic Program
- If a product contains agricultural ingredients, and meets the USDA organic production, handling, processing and labeling standards, it may be eligible to be certified



Package says	Composition of the PCP	What must be on the product packaging
100% Organic	Must contain 100% organic ingredients	USDA Organic Seal Certifying agent's name & address
Organic	Must contain at least 95% organic ingredients	USDA Organic Seal Certifying agent's name & address
Made with organic ingredients	Must contain at least 70% organic ingredients	Certifying agent's name & address Indicate which ingredients are certified organic
Cannot be labeled organic	Products with less than 70% organic ingredients	Indicate which ingredients are certified organic



Using Cleaning Products Safely

Use in **well ventilated areas**

Use in areas **away from pregnant women, babies and young children, seniors, people with asthma, and others who may be sensitive**

Store all cleaners and other chemicals away from children

Mixing ammonia & bleach creates chloramine gas

- Toxic, causes coughing shortness of breath, chest pain, wheezing, nausea, watery eyes, irritates the throat, nose & eyes, pneumonia & fluid in the lungs

Mixing acids and bleach creates chlorine gas, & hydrochloric acid when mixed with water

- Chlorine gas causes coughing and breathing problems, burning & watery eyes, and runny nose. Higher levels cause chest pain, more severe breathing difficulties, vomiting, pneumonia, and fluid in the lungs. Very high levels can cause death. It is absorbed through the skin & causes pain, inflammation, swelling, & blistering.
- Hydrochloric acid causes burns to the skin, eyes, nose, throat, mouth & lungs.

Do not use **two drain cleaners together, or one right after the other as they may contain bleach or acid**

If you think or know you mixed these together –

- Leave the room & get fresh air immediately. Don't return until the room has been well ventilated.
- Contact your local Poison Control (1-800-222-1222)



Proper Disposal of Household Cleaners

- Always **dispose of cleaners in accordance with the manufacturer's instructions** on the product label
- Most **water soluble cleaners** (those mixed with water during use), including liquids, gels, and powders can be disposed of down the drain with running water just like when you use them
- Most **solid products** (soap scouring pads, sticks, towelettes, etc.) can be placed in the trash
- For **other products** (such as oven cleaners, crystal drain openers and furniture polishes) contact the manufacturer for disposal recommendations, or check with your local trash hauler and the EcoPark

Canadian Consumer Specialty Products Association (CCSPA), How to dispose of household cleaning products safely,
http://www.healthycleaning101.org/english/HCP_disposal.html



Alternative Cleaning Ingredients

PRODUCT	USED TO ...	PRACTICAL EXAMPLE
Baking soda	Clean, deodorize, water soften, scour	Clean toothbrush or hairbrush
Unscented, non-antibacterial soap	Clean a huge range of materials and surfaces	Washing dishes
Lemon	Fight household bacteria	Rub on smelly cutting board
Borax	Clean, deodorize, disinfect, water soften, clean floors, wallpaper, and printed walls	Alternative to bleach, boosts soaps, and removes stains
White vinegar	Cuts grease, removes mildew, odors, some stains, and wax build-up	Remove grease from clothes, towels, carpets, rugs
Cornstarch	Clean windows, polish furniture, shampoo carpets and rugs	Absorbs smell; sprinkle on carpet, let sit for 30 minutes, and vacuum up
Citrus solvent	Cleans paint brushes, oil and grease, some stains	Use instead of paint thinner, clean painting materials

Restoring Eden, Choosing Wise Alternatives to Risky Cleaning Products, <http://restoringeden.org/resources/alternative-cleaners>



U.S. Department of Health & Human Services

www.hhs.gov



Household Products Database

Health & Safety Information on Household Products

National Institutes of Health
National Library of Medicine
Specialized Information Services



Home

Products

Manufacturers

Ingredients

Health Effects

Quick Search

Product, Manufacturer etc...



Advanced Search ▶

Browse by Category

Auto Products
Inside the Home
Pesticides
Landscape/Yard
Personal Care
Home Maintenance
Arts & Crafts
Pet Care
Home Office

Browse A-Z

Product Names
Types of Products
Manufacturers
Ingredients

Support

About the Database
FAQ
Product Recalls
Help
Glossary
Contact Us
More Resources

What's under your kitchen sink, in your garage, in your bathroom, and on the shelves in your laundry room? Learn more about what's in these products, about potential health effects, and about safety and handling.



Auto Products

Brake Fluid, De-icer, Lubricant, Sealant, and more...



Inside the Home

Air Freshener, Bleach, Cleaners, Toilet Bowl Cleaner, and more...



Pesticides

Animal Repellent, Fungicide, Herbicide, Insecticide, and more...



Landscape/Yard

Fertilizer, Lawn Care, Swimming Pool Products, and more...



Personal Care

Antiperspirant, Hair Spray, Makeup, Shampoo, Soap and more...



Home Maintenance

Caulk, Grout, Insulation, Paint, Putty, Stain, and more...



Arts & Crafts

Adhesive, Glaze, Glue, Primer, Varnish, and more...



Pet Care

Flea & Tick Control, Litter, Stain/Odor Remover, and more...



Home Office

Ink, Toner, Correction Fluid, Electronics Cleaners, Pens and more...

For advice if someone is poisoned, call your local Poison Center at 1-800-222-1222.

[Home](#) | [Products](#) | [Manufacturers](#) | [Ingredients](#) | [Health Effects](#)

Household Products Database

<http://householdproducts.nlm.nih.gov/>

Search for cleaning products by name

- Info available: Product info, manufacturer, health effects, handling/disposal, ingredients

Copyright, Privacy, Accessibility, Freedom of Information Act
U.S. National Library of Medicine, 8600 Rockville Pike, Bethesda
National Institutes of Health, Health & Human Services
Customer Service: tehip@tehl.nlm.nih.gov
Last updated: October, 2011



EWG's Guide to Healthy Cleaning

Safety ratings for more than 2,000 products.

Search more than 2,000 products

Search



Top Products

Find greener cleaners for
household needs



Label Decoder

Translate technical terms
and ad hype



About this Report

EWG looked beyond labels
to rate products



 Share This

Products:

Air Fresheners (2 / 1)

All Purpose (416)

Bathroom (21 / 1)



EWG's Guide to Healthy Cleaning Update Center

Sun & Earth Update

Date posted: 2013-04-03

EWG is updating the Guide to Healthy Cleaning
information from Sun & Earth.

Guide to Healthy Cleaning

<http://www.ewg.org/guides/cleaners>

Search for cleaning products by name

Search for cleaning product types

Search for companies

Search for ingredients

Back



See more:

Product Ingredients

What's on the label

Health & Environmental Concerns

Warnings & Directions

Green-Certified?

Animal Testing?

Contact Company

Sign up:

Want email updates about



Windex Original Glass Cleaner with Ammonia-D

See:

General Purpose Clea...

Brand: Windex

Company: S.C. Jo...

Asthma/Respiratory



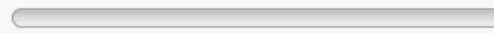
Moderate Concern

Skin Allergies & Irritation



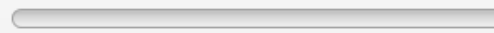
Some Concern

Developmental & Reproductive Toxicity



Low Concern

Cancer



Low Concern

Environment



Moderate Concern

How does it rate: Scores for similar cleaners ranged from **A** to **F**. Search for a **better General Purpose Cleaner**

Top Scoring Factors: May contain ingredients with potential for acute aquatic toxicity; respiratory effects; skin irritation/allergies/damage

Ingredient Disclosure: poor

Green Certified: NO

Print

Share on: f b +

Product ingredients

Known Ingredients

Ingredient

Health, Environment, and Disclosure Concerns

Score

AMMONIUM HYDROXIDE

High Concern: acute aquatic toxicity; **Moderate Concern:** respiratory effects; **Some Concern:** damage to vision, skin irritation/allergies/damage



HEXAMETHYLENE

Moderate Concern: respiratory effects



Packaging

- Choose recyclable packaging
- Choose packaging with recycled content
- Consider packaging with biobased content, such as “compostable”
 - Few towns have industrial composters
- Choose concentrates instead of ready to use formulas
 - Reduced environmental footprint of transporting the cleaner and uses less packaging than ready to use formulas
- Choose refills when you can
 - Uses less packaging than ready to use formulas
 - Typically cheaper



L: 50oz, 4x laundry soap(66 loads); recyclable or compostable bottle made from 100% recycled fiber uses 66% less plastic than other bottle
 R: 50 oz, 2x laundry soap (33 loads)



L: 18 ounce liquid dish soap
 R: 36 ounce liquid dish soap refill



Upcoming Events



New York State Pollution Prevention Institute's
**Green Homes for
Cleaner Lakes**
WORKSHOP SERIES



Webinar Series

*1hr presentation followed by Q&A starting at
2:00 on the dates below*

March 18 How Green is Your Clean?

March 26 Safer Household Products

April 2 Hazardous Waste at Home

**April 9 Potential Hidden Dangers of
Personal Care Products**

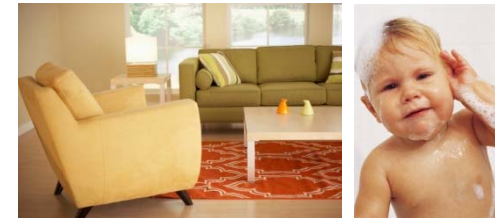
Contact NYSP2I at greenhomes@rit.edu to register



Environmental Health
for Young Children
& New Parents
N Y S P 2 I

March 26, 7-9pm

1hr presentation followed by Q&A
**Breast Cancer Coalition of
Rochester, University Ave**



**Clean, Green, & Healthy:
Choosing Safer Household and
Personal Care Products**

Learn how to identify and protect
yourself and your family from potential
health hazards found in products around
your home.

Registration not required.



Questions & Discussion

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New York State Pollution Prevention Institute

<http://www.nysp2i.rit.edu>

