GET CLEAN®

Usage Manual

October 2011 Edition

Shaklee®
Creating Healthier Lives®

Table of Contents

GET CLEAN®

Safe for you, your home, and your planet.®

Shaklee®
Creating Healthier Lives®

Get Clean® offers you cleaning choices that are SAFE, POWERFUL, GREEN, and SMART. Because when it comes to keeping your house clean and the earth safe, you shouldn't have to choose. When you use Get Clean, you're never simply cleaning. While you make your home cleaner, you can make your family healthier. You also make the planet healthier for other families, as well.

Did you know?

- Over **90% of poison exposures** happen at home.
- Common chlorine bleach is the **#1 household chemical** involved in poisonings.
- Organic pollutants, found in many common cleaners and even air fresheners, have levels **2 to 5 times higher inside your home** than out.
- Common cleaners give off fumes that can potentially **increase the risk of kids developing asthma**, the most common chronic childhood disease.
- **1 in 13** school-aged children has asthma. Rates in children under 5 **increased more than 160%** from 1980–1994.
- If your home is anything like the average U.S. home, you generate **more than 20 pounds of household hazardous waste** each year (the EPA designates toilet cleaners, tub and tile cleaners, oven cleaners, and bleach as hazardous waste).

Shaklee Difference

Get Clean products offer cleaning choices that are:

SAFE

- ✔ Nontoxic
- ✔ No harmful fumes
- ✔ Hypoallergenic
- ✔ No volatile organic cleaning compounds
- ✔ Formulated without hazardous chemicals such as:
  - Kerosene
  - Phenol
  - Cresol
  - Lye
  - Hydrochloric acid
  - Sulfuric acid
  - Sulfamic acid
  - Petroleum distillates
  - Ammonia
  - Butyl cellosolve
  - Phosphoric acid
  - Formaldehyde
  - Morpholine

POWERFUL

- ✔ Outperforms or matches 20 national brands
- ✔ 100% money-back guarantee

GREEN

- ✔ Sustainable ingredients from natural sources
- ✔ Biodegradable surfactants
- ✔ Recyclable packaging
- ✔ Recyclable wipes
- ✔ Recyclable dryer sheets
- ✔ No chlorine bleach
- ✔ No phosphates
- ✔ No nitrates
- ✔ No volatile organic cleaning compounds
- ✔ No animal testing

GET CLEAN®

Safe for you, your home, and your planet.®

Shaklee®
Creating Healthier Lives®

Household Cleaners

Basic H2® Organic Super Cleaning Concentrate

With its incredible powerful formula, Basic H², when used as directed, dominates grease, grime, and dirt 1,000 different ways. Superconcentrated and as earth friendly as original Basic-H®, it can be used indoors or out on any washable surface. Just 2 ounces of Basic H² provides the same cleaning uses of 728 bottles of the 26-ounce size of Windex® original formula.*

Sizes Available

- Basic H2® Organic Super Cleaning Concentrate,
  16 fl. oz. (#00015) ☆
  64 fl. oz. (#00029) ☆

Basic H2® Organic Super Cleaning Wipes

Now you can harness the power of Basic H² in a convenient and biodegradable wipe that won't leave any residue as it wipes away dirt, grease, and grime.

Size Available

- Basic H² Organic Super Cleaning Wipes, 35 – 7"x 8" wipes (#00302) ☆

Germ Off Disinfecting Wipes

Kills 99.9% of common household bacteria *Salmonella enterica* and *E.coli.* Premoistened wipes clean and deodorize quickly and easily.

Size Available

- Germ Off Disinfecting Wipes, 35 – 7" x 8" wipes (#00322)

Nature Bright® Laundry Booster and Stain Remover

Nature Bright uses natural enzymes and active oxygen to re-brighten laundry, de-stain upholstery, and way more.

Sizes Available

- Nature Bright Laundry Booster and Stain Remover, 2 lb. Pouch (#00305) ☆
- Nature Bright Laundry Booster and Stain Remover Dispenser (#50413)

Scour Off™ Heavy-Duty Paste

This scouring cleanser removes the toughest stuck-on messes without harsh chemicals.

Size Available

- Scour Off Heavy-Duty Paste, 9 oz. (#00430) ☆

Kitchen

Hand Dish Wash Liquid Concentrate

Just a few drops of this natural, nontoxic dishwashing liquid power through your greasy dishes, leave your dishes sparkling clean, and are gentle on your hands.

Size Available

- Dish Wash Liquid Concentrate, 16 fl. oz. (#00255) ☆

Outcleans the Competition

Get Clean is a high-performance line of powerful cleaners that outcleans or matches 20 national brands. That means we outclean the competition, or we'll give you your money back. Because you shouldn't have to sacrifice powerful cleaners for powerful convictions. And vice versa.

- 16 oz. of Basic H2® Organic Super Cleaning Concentrate makes the equivalent of over 5,800 bottles of Windex® (26 oz. each).*
- Nature Bright® Laundry Booster and Stain Remover removes soil stains 14% better than OxiClean® Versatile Stain Remover Powder, and is comparable to Clorox 2® Stain Fighter when used as a laundry additive during soaking and washing.**
- It takes more than one and one-half 45 oz. boxes of Cascade® powder to clean the same 48 loads as Dish Washer Automatic Concentrate.***
- Hand Dish Wash Concentrate (for washing dishes in the sink) is more effective than Palmolive® Ultra Pure + Clear®, Green Works® 97% Naturally Derived Dishwashing Liquid, Seventh Generation™ Natural Dish Liquid, and Method® Dish Natural Concentrated Dish Wash Liquid.****
- Fresh Laundry Concentrate HE Compatible (Liquid) removes soil 22% better than Resolve® Max™ and is comparable to Shout® Advanced and Green Works® Laundry when used as a stain remover, and outperforms Method®, All® Small and Mighty®, and Martha Stewart Clean™ Laundry, and is comparable to Tide® Free and Gentle, in overall soil removal when used as a liquid laundry concentrate.†
- A 5.5-pound box of Fresh Laundry Concentrate (powder) washes 88 loads, 30% more loads than the same amount of Ultra Tide® Powder.‡

*This performance comparison was done on May 25, 2011, and is valid only for the named product marketed at that time. **These performance comparisons were conducted on May 17, 2011, and are valid only for the named products marketed at that time. ***This label comparison was done on May 25, 2011, and is valid only for the named products marketed at that time. ****This performance comparison was done on May 15, 2011, and is valid only for the named products marketed at that time. †These performance comparisons were conducted on May 13, 2011, and are valid only for the named products marketed at that time. ‡This label comparison was done on May 25, 2011, and is valid only for the named products marketed at that time.

Dish Washer Automatic Powder Concentrate

The deep, enzyme-activated cleaning power of patented Dish Washer Automatic Powder Concentrate gently removes tough stains, leaving dishes and glasses sparkling clean.

Sizes available

- Dish Washer Automatic Powder Concentrate, 2 lb. Pouch (#00295) ☆
- Dish Washer Automatic Powder Dispenser (#50407)

Hand Wash Concentrate

This supermild, sudsy cleanser has wheat germ oil to moisturize, soy protein to condition, balm mint and gentian extracts to soothe, and juniper and spruce extracts to energize.

Sizes available

- Hand Wash Liquid Concentrate, 32 fl. oz. (#00191)
- Hand Wash Dispenser (#50408)

Laundry

Fresh Laundry Concentrate HE Compatible (Liquid)

This superconcentrated liquid outperforms leading detergents and spot removers and works in high-efficiency and standard washers. 32 ounces clean 32 loads.

Sizes available

- Fresh Laundry Concentrate HE Compatible (Liquid),
  32 fl. oz. (#00066) ☆
  64 fl. oz. (#00114) ☆
- Fresh Laundry Fragrance Free Concentrate HE Compatible (Liquid),
  32 fl. oz. (#00300) ☆

Fresh Laundry Concentrate (Powder)

This superconcentrated powder uses enzyme-activated natural ingredients to get your clothes really clean — 5.5 pound box cleans 88 loads. Available in regular or fragrance free formulas.

Sizes available

- Fresh Laundry Concentrate (Powder),
  5.5 lb. (#00159) ☆
  14 lb. (#00160) ☆
- Fresh Laundry Fragrance Free Concentrate (Powder), 5.5 lb. (#00161) ☆

Product Aids Available

- Get Clean Caddy Organizer Kit (#50447)
- Basic H^2 Organic Super Cleaning Concentrate Sample, 50-Pack (#60062)
- Get Clean Spray Bottles, 3-Pack (#50443)
- Super Microfiber Cleaning Cloth (#50409)
- Super Microfiber Window Cloth (#50410)
- Super Microfiber Dish Sponge (#50411)
- Miracle Scrubber Pad (#50510)
- Laundry Measuring Cup (#50077)
- 1/4 oz. Dispensing Pump for 32 oz. bottle (#50414)
- 1/2 oz. Dispensing Pump for 64 oz. bottle (#50415)
- Dual Measuring Spoon 25-Pack (#50416)
- Squeeze Bottle with Dropper Tip (#50419)

Soft Fabric Concentrate

Clean-smelling, silky softener reduces wrinkles and removes static cling. 32 ounces soften 64 loads.

Size available

- Soft Fabric Concentrate, 32 fl. oz. (#00307)

Soft Fabric Fragrance Free Dryer Sheets

Vegetable based softener on a biodegradable sheet that breaks in two in the dryer for even distribution of softener and greater reduction of static cling.

Size available

- Soft Fabric Fragrance Free Dryer Sheets, 80 sheets (#00306) ☆

Visit **ShakleeGetClean.com** for more information and cleaning tips.
100% Shaklee Guarantee. We stand behind each and every one of our products. The ingredients, purity, safety, and performance of all our Nutrition, Healthy Home, and Personal Care Products are 100% guaranteed.

TO CLEAN THE KITCHEN

All-Purpose Cleaning

Kitchen appliances, countertops, walls, sealed marble, sealed granite, stainless steel, sealed/painted wood, vinyl floors, metal, and chrome

DO NOT USE on antique, unsealed walls

Basic H²® Organic Super Cleaning Concentrate with Get Clean Spray Bottle—All-Purpose

For 16 oz. of water, add 1/4 teaspoon of **Basic H²** in a **Get Clean Spray Bottle**

For 32 oz. of water (quart), add 1/2 teaspoon

For 1 gallon of water, add 2 teaspoons

Basic H² Organic Super Cleaning Wipes

Degreasing

Ovens, microwave ovens, and stove pans

Basic H² Organic Super Cleaning Concentrate with Get Clean Spray Bottle—Degreaser

For 16 oz. of water, add 1½ teaspoons of **Basic H²** in a **Get Clean Spray Bottle**

For 32 oz. of water (quart), add 1 tablespoon

For 1 gallon of water, add 1/4 cup (2 oz.)

TO CLEAN THE KITCHEN (continued)

Windows and Mirrors

Basic H²® Organic Super Cleaning Concentrate with **Get Clean Spray Bottle—Windows**

For 16 oz. of water, add 2 drops of **Basic H²** in a **Get Clean Spray Bottle**

For 32 oz. of water (quart), add 4 drops

For 1 gallon of water, add 1/8 teaspoon

Basic H² Organic Super Cleaning Wipes

When cleaning windows and mirrors, follow with a dry cloth

Pots and Pans

Apply **Hand Dish Wash Liquid Concentrate** to a sponge and wash dishes as usual; a little goes a long way

For cutting grease, squirt a small amount of **Basic H²** directly onto surface

For abrasive cleaning, apply **Scour Off™ Heavy-Duty Paste** with sponge and plenty of water; wipe or rinse off

Regular Oven

Scour Off Heavy-Duty Paste
Apply with sponge; wipe or rinse off

TO CLEAN THE KITCHEN (continued)

Continuous Cleaning Ovens

For 16 oz. of water, add 1½ teaspoons of **Basic H2®** in a **Get Clean Spray Bottle**

For 32 oz. of water (quart), add 1 tablespoon

For 1 gallon of water, add 1/4 cup (2 oz.)

DO NOT USE Scour Off™ on continuous cleaning oven surfaces

Disinfecting

Germ Off Wipes
Kills household bacteria* found on hard, nonporous household, and kitchen surfaces:

Kitchen — Faucets, appliances, countertops, and sinks

General use — Doorknobs, computer keyboards, telephone receivers and keypads

Cleaning: Wipe surfaces with wipe, let air-dry. No need to rinse. These wipes will not harm most surfaces. Not recommended for use on unpainted wood or glass.

Disinfecting: *Kills *Salmonella choleraesuis,* ATCC #10708; and *E.coli,* ATCC #11229, and *E.coli* #0157:H7 ATCC #43895 on hard, nonporous surfaces. Wipe surface to be disinfected. Allow surface to remain wet for 10 minutes before use. Let surface dry. A rinse is required for surfaces in direct contact with food. For heavily soiled surfaces, clean before following disinfecting instructions.

TO CLEAN THE KITCHEN (continued)

Manual Dishwashing

Apply **Hand Dish Wash Liquid Concentrate** to a sponge and wash dishes as usual; a little goes a long way

or

Add 10 drops of **Hand Dish Wash Liquid Concentrate** to a sinkful of water

Handwash

Hand Wash Concentrate

- Place by sink for washing hands
- Apply to hands, wash, rinse

Accessories

Reusable Cloths/Sponges
(can be laundered more than 300 times)

All-Purpose Cloth—Green

Window Cloth—Blue

Sponge—Blue/Striped

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TO CLEAN THE HOUSE, INSIDE AND OUT

All-Purpose Cleaning

Basic H²® Organic Super Cleaning Concentrate with **Get Clean Spray Bottle—All-Purpose**

Countertops, walls, sealed marble, sealed granite, stainless steel, sealed/painted wood, vinyl floors, metal, and chrome

For 16 oz. of water, add 1/4 teaspoon of **Basic H²** in a **Get Clean Spray Bottle**

For 32 oz. of water (quart), add 1/2 teaspoon

DO NOT USE on antique, unsealed walls

For 1 gallon of water, add 2 teaspoons

Basic H² Organic Super Cleaning Wipes

Windows and Mirrors

Basic H² Organic Super Cleaning Concentrate with **Get Clean Spray Bottle—Windows**

When cleaning windows and mirrors, follow with a dry cloth; toss dirty wipes in your recycling bin

For 16 oz. of water, add 2 drops of **Basic H²** in a **Get Clean Spray Bottle**

For 32 oz. of water (quart), add 4 drops

For 1 gallon of water, add 1/8 teaspoon

Ball-Point Pen, Red Wine, Permanent Marker, and Ink

Apply **Basic H²® Organic Super Cleaning Concentrate** at full strength. Rinse or wash well.

TO CLEAN THE HOUSE, INSIDE AND OUT (continued)

Floors

DO NOT USE on waxed woods

Basic H²® Organic Super Cleaning Concentrate

For 1 gallon of water, add 1 tablespoon

No rinsing needed

Laminated, Sealed, or Painted Wood

Basic H² Organic Super Cleaning Concentrate with **Get Clean Spray Bottle—All-Purpose**

For 16 oz. of water, add 1/4 teaspoon of **Basic H²** in a **Get Clean Spray Bottle**

For 32 oz. of water (quart), add 1/2 teaspoon

For 1 gallon of water, add 2 teaspoons

Sealed Linoleum, Porcelain, Tile, or Lawn Furniture

Basic H² Organic Super Cleaning Concentrate with **Get Clean Spray Bottle—Degreaser**

For 16 oz. of water, add 1½ teaspoons of **Basic H²** in a **Get Clean Spray Bottle**

For 32 oz. of water (quart), add 1 tablespoon

For 1 gallon of water, add 1/4 cup (2 oz.)

For tough stains

Nature Bright®
For 1 gallon of water, add 2–4 scoops (4–8 tablespoons). Pour solution onto surface, or sponge on. Wait 5–30 minutes. Scrub if needed to remove stains. Rinse well with water. Don't allow solution to dry on the surface.

TO CLEAN THE HOUSE, INSIDE AND OUT (continued)

Disinfecting

Germ Off Wipes

Kills household bacteria* found on hard, nonporous household surfaces:

General use

Doorknobs, computer keyboards, telephone receivers and keypads

Cleaning: Wipe surfaces with wipe, let air-dry. No need to rinse. These wipes will not harm most surfaces. Not recommended on unpainted wood or glass.

Disinfecting: *Kills *Salmonella choleraesuis,* ATCC #10708; and *E.coli,* ATCC #11229, and *E.coli* #0157:H7 ATCC #43895 on hard, nonporous surfaces. Wipe surface to be disinfected. Allow surface to remain wet for 10 minutes before use. Let surface dry. A rinse is required for surfaces in direct contact with food. For heavily soiled surfaces, clean before following disinfecting instructions.

Accessories

Reusable Cloths/Sponges

(can be laundered more than 300 times)

All-Purpose Cloth—Green

Window Cloth—Blue

Sponge—Blue/Striped

TO CLEAN THE BATHROOM

Toilets

- Flush toilet
- While toilet bowl is refilling, sprinkle 2 scoops of **Nature Bright® Laundry Booster and Stain Remover** around the surface of the bowl
- Add a squeeze (1/4 teaspoon) of **Basic H²® Organic Super Cleaning Concentrate** into the water
- Scrub with toilet brush as it refills
- Wipe toilet surfaces and handles with **Germ Off Disinfecting Wipes**

Grout Discoloration, Nonslip Shower or Bathtub

- Wet sponge
- Pour small amount of **Nature Bright** onto sponge (wear gloves)
- Rub onto surface and rinse off; for stubborn stains, leave on surface for 5 minutes and wipe off

Windows and Mirrors

Basic H² Organic Super Cleaning Concentrate with **Get Clean Spray Bottle—Windows**

- Spray onto surface and wipe with blue cloth

For 16 oz. of water, add 2 drops of **Basic H²** in a **Get Clean Spray Bottle**

For 32 oz. of water (quart), add 4 drops

For 1 gallon of water, add 1/8 teaspoon

TO CLEAN THE BATHROOM (continued)

Showers, Bathtubs, Sealed Countertops (Marble, Granite, Stainless Steel), Appliances, Bathroom Fixtures, and Walls

Basic H²® Organic Super Cleaning Concentrate with **Get Clean Spray Bottle—All-Purpose**

- Spray onto surface and wipe with green cloth or sponge

For 16 oz. of water, add 1/4 teaspoon of **Basic H²** in a **Get Clean Spray Bottle**

For 32 oz. of water (quart), add 1/2 teaspoon

For 1 gallon of water, add 2 teaspoons

Floors

Basic H² Organic Super Cleaning Concentrate

1 tablespoon + 1 gallon of water

- No rinsing needed

Soap Scum/Deposits

- Apply **Scour Off™ Heavy-Duty Paste** with sponge
- Wipe or rinse off

Handwash

Hand Wash Concentrate
Place by sink for washing hands; apply to hands, wash, rinse

LAUNDRY

Washing

Fresh Laundry Concentrate HE Compatible (Liquid)

Standard washing machines
medium loads,
1 oz. (2 pumps)

large loads,
2 oz. (4 pumps)

High-efficiency (HE) washing machines
medium/large loads,
1 oz. (2 pumps)

DO NOT USE with red wine stains (see next page for specific instructions)

Nature Bright® Laundry Booster and Stain Remover (bleach alternative)

Laundry
medium loads with detergent,
1/2 scoop (1 tablespoon);
add to every load with detergent

large loads with detergent,
1 scoop (2 tablespoons);
add to every load with detergent

LAUNDRY (continued)

Spot/Stain Removal

To Prespot Stains: Test a small spot first to make sure color won't bleed or fade. Wet fabric and rub a little **Fresh Laundry Concentrate** right into the spot. Wash as usual.

DO NOT USE with red wine stains (see below for specific instructions)

Soaking

2 scoops (4 tablespoons) of **Nature Bright®** in 1 gallon of water. Add soiled laundry. Soak 1–6 hours, then rinse or wash well. Test for colorfastness first (especially with nylon, acetate, silk, or washable wool): apply a solution of 1/2 teaspoon of **Nature Bright** dissolved in 2 cups of hot water to a hidden area.

Woolens, Nylons, and Fine Fabrics

1/2 teaspoon of **Basic H²® Organic Super Cleaning Concentrate** to a basin of lukewarm water

Red Wine Stains

Apply **Basic H² Organic Super Cleaning Concentrate** at full strength. Rinse or wash well.

LAUNDRY (continued)

Fabric Softening

Soft Fabric Concentrate (fabric softener)

In washer

Automatic—HE/Front Loader
(dispenser cup for fabric softener):

medium loads
1/2 oz. (2 pumps)

large loads
1 oz. (4 pumps)

Automatic Regular
(dispenser cup for fabric softener):
Dilute **Soft Fabric Concentrate** in 1 cup of warm water. Add **Soft Fabric Concentrate** at the start of the wash cycle (or follow washer manufacturer's directions).

Manual
(no dispenser cup for fabric softener):
Add above dilution to final rinse.

Hand Wash: Dilute 1/4 oz. or 1½ teaspoons in 1 cup of water and mix well. Add to final rinse water. Remember, don't apply **Soft Fabric Concentrate** directly to fabric.

In dryer

Soft Fabric Fragrance Free Dryer Sheets

Add an unfolded fabric softener sheet at the beginning of each drying cycle. For large loads, use two sheets. Upon completion of drying cycle, remove and toss dryer sheets into your recycling bin.

GET CLEAN® Surface Cleaning Guide

PICK A SURFACE	GET CLEAN	MEASURE IT OUT	CLEAN IT
Aluminum	Basic H²® Basic H²® Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Bathtubs	Basic H²	¼ teaspoon / 16 oz. water	Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use.
Cane—Woven Furniture (sealed)	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Cast Iron	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Cooktops—Glass	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Cooktops—Nonglass	Basic H² Basic H² Wipes Scour Off™	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is Scour Off—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette. Apply with a sponge or damp cloth. Use plenty of water and rub on, then wipe or rinse off.
Chrome	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Copper	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Corian®*	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Decks	Basic H² Nature Bright®	Basic H²—¼ teaspoon / 16 oz. water Nature Bright—2 to 4 scoops / gallon water	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Nature Bright—Apply solution directly from bucket or sponge. Wait 5–30 minutes. Scrub if needed and rinse well with water. Don't allow solution to dry on the surface.

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GET CLEAN® Surface Cleaning Guide

PICK A SURFACE	GET CLEAN	MEASURE IT OUT	CLEAN IT
Fine Fabrics	Basic H²®	½ teaspoon to a basin of lukewarm water	Mix into water. Add clothes and soak for 10–30 minutes. Rinse thoroughly and dry per fabric label.
Floors—No Wax	Basic H²	1 tablespoon / gallon water	Apply with a mop. Allow surface to dry thoroughly before use.
Floors—Wood (sealed)	Basic H²	1 tablespoon / gallon water	Apply with a mop. Allow surface to dry thoroughly before use.
Formica®*	Basic H² Basic H²® Wipes	Basic H²—½ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Glass and Windows	Basic H² Basic H² Wipes	Basic H²—1 to 2 drops / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Gold and Gold Plate	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Granite—Sealed	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Grout	Scour Off™	Full strength	Apply with a sponge or damp cloth. Use plenty of water and rub on, then wipe or rinse off.
Gum/Adhesive Residue	Basic H²	Full strength	Apply directly to gum in hair and massage to remove. Apply to adhesive residue and rub to remove.
Jewelry	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Knives and Scissors	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Leather	Basic H² Wipes	Basic H² Wipes—as is	Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Linoleum	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.

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Shaklee® Creating Healthier Lives®

GET CLEAN® Surface Cleaning Guide

PICK A SURFACE	GET CLEAN	MEASURE IT OUT	CLEAN IT
Marble (sealed)	Basic H²®	Basic H²—¼ teaspoon / 16 oz. water	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use.
	Basic H²® Wipes	Basic H² Wipes—as is	Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Microwave Oven—Light Soil	Basic H²	Basic H²—¼ teaspoon / 16 oz. water	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use.
	Basic H² Wipes	Basic H² Wipes—as is	Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Mirrors	Basic H²	Basic H²—¼ teaspoon / 16 oz. water	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use.
	Basic H² Wipes	Basic H² Wipes—as is	Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Ovens	Scour Off™	Full strength	Apply with a sponge or damp cloth, use plenty of water—rub on, then wipe or rinse off.
Paint Brushes	Basic H²	½ tablespoon / ½ gallon water	Soak 24 hours; rinse with hot water.
Patio Furniture	Basic H²	Basic H²—¼ teaspoon / 16 oz. water	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use.
	Basic H² Wipes	Basic H² Wipes—as is	Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
	Nature Bright®	Nature Bright—2 to 4 scoops / gallon water	Nature Bright—Apply solution directly from bucket or with sponge. Wait 5–30 minutes. Scrub if needed and rinse well with water. Don't allow solution to dry on the surface.
Porcelain	Basic H²	¼ teaspoon / 16 oz. water	Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use.
Silver and Silver Plate	Basic H²	Basic H²—¼ teaspoon / 16 oz. water	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use.
	Basic H² Wipes	Basic H² Wipes—as is	Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Sinks	Basic H²	Basic H²—¼ teaspoon / 16 oz. water	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use.
	Basic H² Wipes	Basic H² Wipes—as is	Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Stainless Steel	Basic H²	Basic H²—¼ teaspoon / 16 oz. water	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use.
	Basic H² Wipes	Basic H² Wipes—as is	Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Stone (sealed)	Basic H²	Basic H²—¼ teaspoon / 16 oz. water	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use.
	Basic H² Wipes	Basic H² Wipes—as is	Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.

Shaklee® Creating Healthier Lives®

GET CLEAN® Surface Cleaning Guide

PICK A SURFACE	GET CLEAN	MEASURE IT OUT	CLEAN IT
Tile—Clay **(sealed)**	Basic H²® Basic H²® Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Tile—Ceramic **(sealed)**	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Toilet	Basic H²	½ oz.	Pour in toilet and brush.
Toys	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Upholstery	Nature Bright®	1 scoop / 16 oz. water	For water-washable upholstery, fabrics, and surfaces, apply solution directly to stained area. Wait 1–5 minutes. Blot with white towel. Repeat if needed. Rinse well and let dry.
Vinyl	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Walls	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Wicker	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Windows	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H²—Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette. Buff with a dry towel for maximum shine.
Wood **(sealed)**	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.
Wrought Iron	Basic H² Basic H² Wipes	Basic H²—¼ teaspoon / 16 oz. water Basic H² Wipes—as is	Basic H² —Spray soiled area, then wipe clean. Allow surface to dry thoroughly before use. Basic H² Wipes—Wipe surface to be cleaned with a fresh towelette.

Shaklee®
Creating Healthier Lives®

GET CLEAN®

Safe for you, your home, and your planet.®

Shaklee®
Creating Healthier Lives®

64 fl. oz.
Makes **32** Gallons
(Industrial-strength cleaner)

16 fl. oz.
Makes **48** Gallons
(All-purpose cleaner)

Basic H²®

Organic Super Cleaning Concentrate ☆

An unbelievable amount of supersafe, really powerful clean comes out of doubly concentrated Basic H² Organic Super Cleaning Concentrate. We challenge you to use it up anytime soon. Basic H² literally gives you a thousand ways to try. Some suggestions: Spilled milk. Bug guts on the window. Barbecue grill grunge. That's three down. Only 997 uses to go.

Benefits

All you need for thousands of household jobs

- Superconcentrated — 16 ounces make 48 gallons of superpowerful all-purpose cleaner.
- Versatile cleaner — removes dirt, grease, and grime from any washable surface, inside and out.
- Cuts through the most stubborn grease and grime, leaving no smeary residue.
- No-rinse, no-residue, streak-free formula.

Surfaces for use — use on any washable surface, indoor or outdoor

- Walls
- Sealed countertops, tiles, and floors
- Stoves
- Pots and pans
- Driveways and engine grease
- Ovens
- Windows and mirrors
- Appliances
- Sealed woodwork
- Furniture
- Barbecue grills
- Sealed granite and marble

Did you know?

Many all-purpose cleaners may contain toxins that can be absorbed through the skin or inhaled. Synthetic solvents may cause hormone disruptions. Organic solvents such as butyl cellosolve are neurotoxins and nasal irritants. Another toxin, morpholine, can cause liver or kidney damage. Glass cleaners contain ammonia, a poison that can irritate skin, eyes, and the respiratory system.

Basic H² does not contain these hazardous ingredients.

Shaklee Difference

SAFE

- ✔ Nontoxic
- ✔ No toxic fumes
- ✔ Fragrance free
- ✔ Mild on your hands
- ✔ pH balanced
- ✔ No chlorine

POWERFUL

- ✔ Tough on grease
- ✔ Ultraconcentrated — 16 oz. make 48 gallons of window cleaner
- ✔ 16 oz. of Basic H² make the equivalent of over 5,800 bottles of Windex®* (26 oz. each)

GREEN

- ✔ Natural, sustainably sourced ingredients — derived from corn and coconut
- ✔ Biodegradable surfactants
- ✔ No phosphates
- ✔ Recyclable packaging
- ✔ No dyes
- ✔ Safe for septic systems and graywater

REPLACES PRODUCTS SUCH AS:

- ✔ Cleaners and degreasers
- ✔ Multisurface cleaners
- ✔ Glass cleaners

*This label comparison was conducted on May 25, 2011, and is valid only for the named product marketed at that time.

Basic H²®
Organic Super Cleaning Concentrate

Shaklee®
Creating Healthier Lives®

Usage

Cleaning

kitchen, appliances, furniture, bathroom fixtures, walls, and sealed woodwork	1/4 teaspoon + 16 oz. of water in a Get Clean® Spray Bottle 1/2 teaspoon + 32 oz. of water (quart)	2 teaspoons + 1 gallon of water
pots and pans	1/2 tablespoon + 1 gallon of warm water	
windows and mirrors	2 drops + 16 oz. of water in a Get Clean Spray Bottle	4 drops + 32 oz. of water (quart) 1/8 teaspoon + 1 gallon of water
floors	1 tablespoon + 1 gallon of water	No rinsing needed
woolens, nylons, and fine fabrics	1/2 teaspoon to a basin of lukewarm water	

Degreasing

ovens, microwave ovens, and stove pans	1½ teaspoons + 16 oz. of water in a Get Clean Spray Bottle	1 tablespoon per quart 1/4 cup (2 oz.) + 1 gallon of water
driveways, grills, engine grease, and pots and pans	1/4 cup (2 oz.) + 1 gallon of water	

Marble, Granite, Stainless Steel

sealed marble and granite, and stainless steel	1/4 teaspoon + 16 oz. of water in a Get Clean Spray Bottle 1/2 teaspoon + 32 oz. of water (quart)	2 teaspoons + 1 gallon of water

Graffiti/Magic Marker

Use Basic H² Organic Super Cleaning Concentrate, full strength

Ovens

continuous cleaning ovens	1½ teaspoons + 16 oz. of water in a Get Clean Spray Bottle	1 tablespoon + 32 oz. of water (quart) 1/4 cup (2 oz.) + 1 gallon of water
regular oven	• Recommend use of Scour Off™ Heavy-Duty Paste (see instruction sheet for this product)	

Continued on next page

Basic H²®
Organic Super Cleaning Concentrate

Shaklee®
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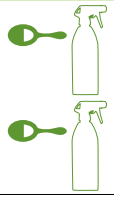
Usage (continued)

Toilets

toilets	• Flush toilet • Pour 2 scoops of Nature Bright® Laundry Booster and Stain Remover • Add 1/4 teaspoon of Basic H²® Organic Super Cleaning Concentrate • Scrub with toilet brush • Wipe toilet surfaces and handles with Germ Off Disinfecting Wipes

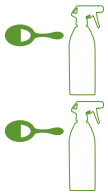
Showers, Bathtubs

general daily care	 1/4 teaspoon + 16 oz. of water in a Get Clean® Spray Bottle 1/2 teaspoon + 32 oz. of water (quart)	 2 teaspoons + 1 gallon of water
soap scum/deposits	• Recommend use of Scour Off™ Heavy-Duty Paste (see instruction sheet for this product)	
grout discoloration	• Wet sponge and dip into Nature Bright (wear gloves) • Rub onto grout and wipe off (see instruction sheet for this product)	

Sealed Patio Furniture

sealed patio furniture	 1½ teaspoons + 16 oz. of water in a Get Clean Spray Bottle	 1 tablespoon + 32 oz. of water (quart)  1/4 cup (2 oz.) + 1 gallon of water

Laminated, Sealed, or Painted Wood

laminated, sealed, or painted wood	 1/4 teaspoon + 16 oz. of water in a Get Clean Spray Bottle 1/2 teaspoon + 32 oz. of water (quart)	 2 teaspoons + 1 gallon of water

DO NOT USE on antique, unsealed walls
DO NOT USE on waxed woods

Surfaces to avoid

DO NOT USE ON ANY UNSEALED SURFACES OR ANTIQUE OR WAXED WOODS

Basic H²®
Organic Super Cleaning Concentrate

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Product specifications
(Typical values)

Concentrate:
1. pH: 6.5 – 8.0
2. Flash point: > 200˚ F
3. Solubility in water: Complete
4. Specific gravity: 1.050
5. Viscosity: 60 – 200cps
6. Boiling point: 212˚F
7. Fragrance: None
8. Appearance: Clear light-yellow liquid

Ready-to-use:
1. pH: 6.0 – 8.0
2. Flash point: Not applicable
3. Solubility in water: Complete
4. Specific gravity: 1.000
5. Viscosity: < 50 cps
6. Boiling point: 212˚F
7. Fragrance: None
8. Appearance: Colorless liquid

Precautionary summary
Concentrate:
Eye contact: May cause eye irritation. Avoid eye contact.
Suggested first aid: Flush with water for at least 10–15 minutes. If irritation persists, contact a physician.
Skin contact: Avoid prolonged skin contact.
Suggested first aid: Wash thoroughly after handling.

Ready-to-use:
Eye contact: May cause eye irritation.
Suggested first aid: Flush with water for at least 10–15 minutes. If irritation persists, contact a physician.
Skin contact: No health effects are expected
Suggested first aid: Rinse affected area with water.

KEEP OUT OF REACH OF CHILDREN.

Note: Refer to product Material Safety Data Sheet, available online, for specific health hazard, first aid, and precautionary information.

Product/container disposal: Dispose of used/unwanted product according to state and local regulations. Offer empty container for recycling.

Sizes available
- Basic H²® Super Cleaning Concentrate, 64 fl. oz. (#00029)
- Basic H²® Super Cleaning Concentrate, 16 fl. oz. (#00015)

Additional tools available
- Measuring Cup (#50077)
- Get Clean Spray Bottle, 3-pack (#50443)
- Super Microfiber Cleaning Cloth (#50409)
- Super Microfiber Window Cloth (#50410)
- Super Microfiber Dish Sponge (#50411)

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35 Wipes

Basic H²®

Organic Super Cleaning Wipes ☆

We believe in a cleaner that doesn't leave behind more toxins than the toxins it's supposed to clean. We also believe in cleaning surfaces faster than you can say Basic H².

Say hello to our popular multitasker, now in a quick wipe. Then say good-bye when you toss it out, because it's also biodegradable.

Benefits

- All the versatility of Basic H² with the convenience of a wipe.
- Versatile cleaner — removes dirt, grease, and grime from any washable surface, inside and out.
- Cuts through the most stubborn grease and grime, leaving no smeary residue.
- No rinse, no residue, streak-free formula.
- Helps prevent fogging.
- Large, durable 7"x 8" wipes.

Did you know?

Some chemicals may cause hormone disruptions. Others, such as butyl cellosolve, are neurotoxins and nasal irritants. Another toxin, morpholine, can cause liver or kidney damage. Glass cleaners contain ammonia, a poison that can irritate skin, eyes, and the respiratory system.

Basic H² Organic Super Cleaning Wipes do not contain these hazardous ingredients.

Shaklee Difference

SAFE

- ✔ Nontoxic
- ✔ No toxic fumes
- ✔ Fragrance free
- ✔ Mild on your hands
- ✔ pH balanced
- ✔ No chlorine bleach

POWERFUL

- ✔ Tough on grease
- ✔ Comparable to Method® Multi-Surface Wipes, Mrs. Meyer's Clean Day® Surface Wipes, and Green Works® Wipes in filming/streaking; comparable to Mrs. Meyer's Clean Day® Surface Wipes on soil removal*

GREEN

- ✔ Sustainable ingredients from natural sources — derived from coconut
- ✔ Biodegradable wipes
- ✔ No phosphates
- ✔ Recyclable wipes and packaging
- ✔ No dyes

REPLACES PRODUCTS SUCH AS:

- ✔ Multisurface wipes
- ✔ All-surface wipes
- ✔ Clean and dust wipes
- ✔ Multitask wipes

*This performance comparison was conducted on May 23, 2011, and is valid only for the named products marketed at that time.

Basic H²®
Organic Super Cleaning Wipes

Shaklee®
Creating Healthier Lives®

Getting started

Lift lid and use as handle to remove cap from canister. Then remove seal. Find the wipe at the very center of the roll, pull it up, and push it through the opening. Put the cap back on the canister. To grab a wipe, pull it slightly to the side. Remember to snap the lid shut when you're finished so the wipes don't dry out.

Directions for best results

When doing windows and mirrors, follow with a dry cloth. Toss dirty wipes in your recycling bin.

Uses	
kitchen	appliances, sealed countertops, and sinks
bathroom	mirrors, tiled walls, toilet seat, and tub
automobile	window, dashboard, and vinyl seats
general use	computer keyboard, phones, glass and mirrors, stainless steel, metal, chrome, vinyl floors, and sealed wood, marble, and granite

Size available

- Basic H² Organic Super Cleaning Wipes, 35 – 7"x 8" wipes (#00302) ☆

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35 Wipes

Germ Off
Disinfecting Wipes

Germs don't stand a chance when you use Germ Off Disinfecting Wipes. These indispensably brilliant, premoistened, ready-to-go cloths clean, disinfect, and deodorize in minutes. Kills odor-causing bacteria* found on hard, nonporous household, kitchen, and bathroom surfaces. Great for cleaning around the toilet. Leaves your bathroom and kitchen fresh and clean. The smart way to clean and disinfect.

Benefits

- A convenient wipe to disinfect and clean all around the house.
- Kills 99.9% of common household bacteria.*
- Cleans all hard, nonporous surfaces with one quick wipe.
- Streak-free cleaning.
- 35 durable 7" x 8" wipes.

Surfaces for use

- Kitchens
- Bathrooms
- Playrooms
- Offices
- Classrooms
- Shopping carts
- Elevators
- Keyboards
- Doorknobs
- Phones
- Faucets
- Remotes

Shaklee Difference

POWERFUL

- ✔ Kills 99.9% of *Salmonella Choleraesuis* and *E. coli* germs*
- ✔ 27% better at soil removal than Seventh Generation™ Disinfecting Wipes and comparable to Lysol® Disinfecting Wipes**
- ✔ Kills odor-causing bacteria*
- ✔ Disinfects
- ✔ Deodorizes
- ✔ Cleans and disinfects all hard, nonporous surfaces

GREEN

- ✔ Recyclable container
- ✔ Bleach free
- ✔ Alcohol free

REPLACES PRODUCTS SUCH AS:

- ✔ Disinfecting wipes

**Salmonella choleraesuis (Salmonella)*, ATCC #10708, *Escherichia coli (E. coli)*, ATCC #11229, and *Escherichia coli (E. coli)* #0157:H7 ATCC #43895.

**This performance comparison was conducted on May 13, 2011, and is valid only for the named products marketed at that time.

Germ Off
Disinfecting Wipes

Shaklee®
Creating Healthier Lives®

Getting started

Flip open dispensing cap and remove lid by pulling upward. Remove seal. Thread center wipe corner through slits in lid center. DO NOT PUSH FINGER THROUGH OPENING. Replace lid. Dispense wipes by pulling out at an angle. Snap flip lid down when finished to retain moisture. Dispose of used wipes in trash. Do not flush.

Directions for use

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Kills household bacteria* found on hard, nonporous household, kitchen, and bathroom surfaces:	
kitchen	faucets, appliances, countertops, and sinks
bathroom	toilet, faucets, tiled walls, and tub
automobile	interiors
general use	doorknobs, computer keyboards, telephone receivers and keypads
toilets	Use Germ Off Disinfecting Wipes on toilet surfaces and handles

Cleaning: Wipe surfaces with wipe, let air dry. No need to rinse. These wipes will not harm most surfaces. Not recommended on unpainted wood or glass.

Disinfecting: Kills *Salmonella choleraesuis,* ATCC #10708, *E.coli,* ATCC #11229, and *E.coli* #0157:H7 ATCC #43895 on hard, nonporous surfaces. Wipe surface to be disinfected. Allow surface to remain wet for 10 minutes before use. Let surface dry. A rinse is required for surfaces in direct contact with food. For heavily soiled surfaces, clean before following disinfecting instructions. Not for personal cleaning. This is **not** a baby wipe!

Size available

- Germ Off Disinfecting Wipes, 35 – 7"x 8" wipes (#00322)

Additional tools available

- Super Microfiber Cleaning Cloth (#50409)
- Super Microfiber Window Cloth (#50410)

**Salmonella choleraesuis (Salmonella)*, ATCC #10708, *Escherichia coli (E. coli)*, ATCC #11229, and *Escherichia coli (E. coli)* #0157:H7 ATCC #43895.

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9 oz.

Scour Off™
Heavy-Duty Paste

Here's an exclusive scouring cleanser that sets a new standard. It's a paste, so it doesn't form dust clouds. It cleans stuck-on messes. It even cleans burnt-on food in your oven. And best of all, it doesn't burn off your nose hairs in the process.

Benefits

- Natural ingredients remove the toughest dried-on splatters and spills, burned-on grease, baked-on food, and sticky messes without hazardous chemicals or toxic fumes.
- Scour Off is made from natural mineral abrasives and biodegradable cleaning agents. It does not contain chlorine bleach or dye.
- Scour Off gently removes stains other cleansers can't and is great for cleaning tubs, ovens, sinks, and tiles.
- It will even remove rust, and is great for cleaning these surfaces: grout, cement, and ceramic.
- Wide-mouth jar makes it easy to use.

Surfaces for use

- Sinks
- Tile
- Grout
- Ovens
- Ovenproof glass
- Stovetops
- Ceramic tiles
- Porcelain sinks
- Baked enamel

Did you know?

Some scouring cleansers, as well as tub, tile, and sink cleaners may contain chlorine-releasing compounds and may contribute to the formation of organochlorines, a dangerous class of compounds that can cause reproductive, endocrine, and immune system disorders. Some also may contain phosphoric acid, which is corrosive in high concentrations and is an eye, skin, and respiratory irritant.

Scour Off does not contain these hazardous ingredients.

Shaklee Difference

SAFE

- ✔ Nontoxic
- ✔ No chlorine bleach
- ✔ No toxic fumes

POWERFUL

- ✔ Rivals Ajax® Powder Cleanser with Bleach and Comet® Disinfectant Cleanser with Bleach in the removal of kitchen grease and grime*
- ✔ Cleans toughest cooked-on food from ovens and barbecues
- ✔ Removes rust

GREEN

- ✔ Natural mineral abrasives
- ✔ Biodegradable surfactants
- ✔ No dyes
- ✔ No phosphates
- ✔ Recyclable packaging
- ✔ Safe for septic systems and graywater

*This performance comparison was conducted on May 12, 2011, and is valid only for the named products marketed at that time.

Scour Off™
Heavy-Duty Paste

Shaklee®
Creating Healthier Lives®

Usage

Pots, Pans	
pots, pans	For abrasive cleaning, apply Scour Off Heavy-Duty Paste with sponge and plenty of water. Wipe or rinse off.
Ovens	
regular oven	Apply with sponge. Wipe or rinse off.
continuous cleaning ovens	**DO NOT USE** ON THIS SURFACE.
Showers, Bathtubs	
showers, bathtubs	Wet a sponge with full-strength Basic H²® Organic Super Cleaning Concentrate and add Scour Off Heavy-Duty Paste for abrasive cleaning and soap scum.
Soap Scum/Mineral Deposits	
soap scum/mineral deposits	Apply with sponge. Scrub and wipe off.

Surfaces to avoid (anything that can scratch)

Do not use Scour Off to clean glass, mirrors, stainless steel, marble, silver, brass, aluminum, acrylic, porcelain, pewter, colorized aluminum, formica, nonskid surfaces, and any other brushed, mirror-like, shiny, or soft finishes.

Size available

- Scour Off Heavy-Duty Paste, 9 oz. (#00430) ☆

Additional tools available

- Super Microfiber Dish Sponge (#50411)
- Miracle Scrubber Pad (#50510)

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Shaklee®
Creating Healthier Lives®

32 fl. oz.

Hand Wash
Concentrate

"Go wash your hands." This supermild, sudsy wash makes it so nice to do as you've always been told. It has wheat germ oil to moisturize, soy protein to condition, balm mint and gentian extracts to soothe, and juniper and spruce extracts to energize. So now it's more like, "Go take your hands to the spa."

Benefits

- This soap-free cleanser is pH balanced and hypoallergenic.
- Wonderfully moisturizing and gentle on your hands — great as a body wash too!
- Formulated with wheat germ oil, soy protein, balm mint, and gentian, juniper, and spruce.
- Fresh natural scent.

Did you know?

Some hand wash liquids use petroleum-based surfactants containing detergents such as diethanolamine (DEA) and sodium dodecylbenzensulfonate. Both ingredients can be skin and eye irritants.

Get Clean Hand Wash Concentrate does not contain these hazardous ingredients.

Directions for best results

Fill the Hand Wash Dispenser Pump Bottle with Hand Wash Concentrate. Apply to hands and wash as usual. A little goes a long way.

Sizes available

- Hand Wash Concentrate, 32 fl. oz. (#00191)
- Hand Wash Dispenser 4-Pack (#81195)

Shaklee Difference

SAFE

- ✔ Nontoxic
- ✔ Hypoallergenic
- ✔ Gentle on your hands
- ✔ pH-balanced

GREEN

- ✔ Natural botanicals
- ✔ Biodegradable Surfactants
- ✔ No phosphates
- ✔ No dyes
- ✔ Recyclable packaging
- ✔ Safe for septic systems and graywater

ADDITIONAL TOOLS AVAILABLE

- Hand Wash Dispenser (#50408)

REPLACES PRODUCTS SUCH AS:

- ✔ Hand Wash
- ✔ Liquid Hand Soap
- ✔ Natural Moisturizing Soap

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GET CLEAN®

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Dispenser

2 lb. Pouch
Washes **48** Loads

Dish Washer

Automatic Powder Concentrate ☆

There are some things you'll never have to do again. Like wash a dish before you put it in the dishwasher. Use earth-adverse chemicals to get a dish clean. Or fill up that little detergent cup to overflowing. Here's a little pouch of nope, don't have to.

Benefits

- The deep, enzyme-activated cleaning power gently removes tough stains, leaving dishes and glasses sparkling clean.
- Superconcentrated — cleans 48 loads, just 2 teaspoons in each dispenser cup.
- No prerinsing needed— removes dried-on food and tough stains so they don't get stuck on.
- Dissolves quickly and completely, getting to work immediately.
- Comes in a handy, resealable pouch with measuring scoop.

Did you know?

Some products contain dry chlorine bleach that is activated when it encounters water in the dishwasher. Chlorine fumes are released in the steam that leaks out of the dishwasher, and they can cause eye irritation. Many automatic dishwashing detergents also may contain phosphates. Phosphates cause rivers and lakes to become clogged with masses of algae and weeds, depriving less aggressive plant and aquatic animal life of oxygen.

Get Clean Dish Washer Automatic Powder Concentrate does not contain these hazardous ingredients and is a patented, phosphate-free formula.

Shaklee Difference

SAFE

- ✔ No chlorine bleach
- ✔ Fragrance free
- ✔ No toxic fumes
- ✔ No phosphates

POWERFUL

- ✔ Superconcentrated — cleans 48 loads
- ✔ Enzyme-activated formula removes tough stains
- ✔ No prerinsing needed
- ✔ It takes more than one and one-half 45 oz. boxes of Cascade® powder to clean the same 48 loads*

GREEN

- ✔ Naturally derived — enzyme and mineral-based ingredients
- ✔ Biodegradable surfactants
- ✔ No phosphates — patented formula
- ✔ No dyes
- ✔ Safe for septic tanks

REPLACES PRODUCTS SUCH AS:

- ✔ Automatic dishwasher powder

*This label comparison was conducted on May 25, 2011, and is valid only for the named products marketed at that time.

Dish Washer
Automatic Powder Concentrate

Shaklee®
Creating Healthier Lives®

Directions for best results

Save water and energy and use the dishwasher only when it's full. Use hot water (at least 140° F) to get things sparkling. Dirty surfaces should face spray jets. Don't block spray to top and back.

in normal water conditions

1 scoop (2 tsp.) to each dispenser cup. Scoop is included. Note: In hard water, add 2 scoops (4 tsp.) per dispenser cup. For really hard water, go ahead and fill them up. Make sure water is at least 140 degrees Fahrenheit for optimal results with this proprietary nonphosphate formula.

No more prerinsing: Get Clean Dish Washer Automatic Powder Concentrate dissolves quickly and releases active cleaning agents early in the wash cycle. You might need to soak baked-on food.
Concentrated: Use just 1 scoop (2 tsp.) in each dispenser cup, unless dishes are super dirty. Other brands need 16 tsp. (2 full dispenser cups) for the same clean. Safe for use in septic systems.
Close securely after use. Make sure that items are dishwater-safe before washing. Store in cool, dry place.
For ease of use, purchase a Dish Washer Automatic Concentrate Dispenser.

Size available

- Dish Washer Automatic Powder Concentrate, 2 lb. Pouch (#00295) ☆

Additional tools available

- Dish Washer Automatic Concentrate Dispenser (#50407)

GET CLEAN®
Safe for you, your home, and your planet.®

Visit **ShakleeGetClean.com** for information and cleaning tips.
100% Shaklee Guarantee. We stand behind each and every one of our products. The ingredients, purity, safety, and performance of all our Nutrition, Healthy Home, and Personal Care Products are 100% guaranteed. Shaklee does not test its products on animals.

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Shaklee®
Creating Healthier Lives®

16 fl. oz.

Hand Dish Wash

Liquid Concentrate ☆

If we hesitate to mention that fresh-scented Hand Dish Wash is soft on hands and the earth, it's only because you might think it's soft on grease. But trust us. You need only a few drops to tackle a pile of greasy dinner aftermath. Really. Just a few.
This is an exercise in restraint.

Benefits

- Tough on grease.
- Helps loosen baked-on foods so you can use less elbow grease.
- Mild on your hands — special formula won't remove natural oils in your skin, giving you soft hands as well as sparkling dishes.
- Long-lasting suds.
- Leaves your dishes sparkling clean.
- Great camping choice — biodegradable and safe for use outdoors in warm or cold water.

Did you know?

Some dishwashing liquids use petroleum-based surfactants containing detergents such as diethanolamine (DEA) and sodium dodecylbenzensulfonate. Both ingredients can be skin and eye irritants.

Get Clean Hand Dish Wash Liquid Concentrate does not contain these hazardous ingredients.

Shaklee Difference

SAFE

- ✔ Nontoxic
- ✔ Hypoallergenic
- ✔ No chlorine
- ✔ Mild on your hands
- ✔ pH balanced

POWERFUL

- ✔ Tough on grease
- ✔ More effective than Palmolive® Ultra Pure + Clear®, Green Works® 97% Naturally Derived Dishwashing Liquid, Seventh Generation™ Natural Dish Liquid, and Method® Dish Natural Concentrated Dish Wash Liquid*
- ✔ Concentrated — wash more dishes with less
- ✔ Long-lasting suds

GREEN

- ✔ Natural, sustainably sourced ingredients — derived from corn and coconuts
- ✔ Biodegradable surfactants
- ✔ No phosphates
- ✔ No dyes
- ✔ Recyclable packaging
- ✔ Safe for septic systems

REPLACES PRODUCTS SUCH AS:

- ✔ Natural dishwashing liquid
- ✔ Natural dish liquid
- ✔ Dish soap
- ✔ Dish washing liquid

*This performance comparison was conducted on May 15, 2011, and is valid only for the named products marketed at that time.

Hand Dish Wash

Liquid Concentrate

Shaklee®
Creating Healthier Lives®

Directions for best results

manual dish washing	Apply Hand Dish Wash Liquid Concentrate to a sponge and wash dishes as usual. A little goes a long way.

Size available

- Hand Dish Wash Liquid Concentrate, 16 fl. oz. (#00255) ☆

Additional tools available

- Get Clean Super Microfiber Dish Sponge (#50411)

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32 fl. oz.
Washes **32** Loads
(Works in both HE and standard washers)

Fresh Laundry

Concentrate (Liquid) ☆ HE Compatible

Here's a fresh idea. Prespot your laundry with the same thing you use to wash it. This two-for-one concentrate doesn't just outperform leading detergents. It also out-removes big-name spot removers. And it does it in both high-efficiency and standard washers — while protecting natural resources. Available in Regular or Fragrance Free formulas. How's that for a breath of fresh laundry?

Benefits

- HE compatible formula!
- Also ideal for use in standard washers.
- Superconcentrated — one small bottle cleans 32 loads, the same number as a 100-ounce bottle of conventional liquid laundry detergent.
- Superperformance in a small package — enzyme-activated natural cleaners deliver a powerful clean that rivals leading brands.
- Removes soil 22% better than Resolve® Max™ and is comparable to Shout® Advanced and Green Works® Laundry when used as a stain remover. Outperforms Method®, All® Small and Mighty®, and Martha Stewart Clean™ Laundry, and is comparable to Tide® Free and Gentle, in overall soil removal when used as a liquid laundry concentrate.*
- Small bottle is easy to carry, pour, and store — small size fits on your shelf.
- Natural enzyme power boosters for color-safe whitening.
- Formulated to help prevent dyes in colored clothes from transferring from one garment to another during wash.

Tip: Washing clothes in cold water can save up to 10 cents per 8-pound load, assuming use of an electric water heater and U.S. average electric rate (*Consumer Reports 2005*).

Shaklee Difference

SAFE

- ✔ Hypoallergenic
- ✔ Nontoxic
- ✔ Safe for use on all washable fabrics
- ✔ No chlorine bleach

POWERFUL

- ✔ Superconcentrated — 32 ounces cleans 32 loads
- ✔ Super performance
- ✔ Great in all temperatures, even in cold water
- ✔ Helps keep your whites white and colors bright

GREEN

- ✔ Sustainable ingredients from natural sources — derived from coconut
- ✔ Biodegradable surfactants
- ✔ No phosphates or nitrates
- ✔ Fragrance-free option
- ✔ No dyes
- ✔ Recyclable packaging
- ✔ Safe for septic systems

REPLACES PRODUCTS SUCH AS:

- ✔ Laundry detergent
- ✔ Laundry stain remover

*These performance comparisons were conducted on May 13, 2011, and are valid only for the named products marketed at that time.

Fresh Laundry

Concentrate (Liquid)

HE Compatible

Shaklee®
Creating Healthier Lives®

Directions for best results

standard washers		1 oz. – medium load
		2 oz. – large loads
high-efficiency (HE) washers		1 oz. – medium and large loads

To prespot stains: Test a small spot first to make sure color won't bleed or fade. Wet fabric and rub a little Fresh Laundry right into the spot. Wash as usual. Check labels. Some flame-retardant fabrics need specific care.

Sizes available

- Regular:
  32 fl. oz. (#00066) ☆
  64 fl. oz. (#00114) ☆
- Fragrance Free:
  32 fl. oz. (#00300) ☆

Use with the following Get Clean products

- Nature Bright® Laundry Booster and Stain Remover (#00305) ☆
- Soft Fabric Concentrate, 32 fl. oz. (#00307)
- Soft Fabric Fragrance Free Dryer Sheets, 80 sheets (#00306) ☆

Additional tools available

- Laundry Measuring Cup (#50077)
- 1/4 oz. Dispensing Pump for 32 oz. bottle (#50414)
- 1/2 oz. Dispensing Pump for 64 oz. bottle (#50415)

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NATURAL • SAFE SINCE Shaklee 1956 100% GUARANTEED

GET CLEAN®
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Shaklee®
Creating Healthier Lives®

14 lb.
Washes **224** Loads
(Regular)

5.5 lb.
Washes **88** Loads
(Regular)

5.5 lb.
Washes **88** Loads
(Fragrance free)

Fresh Laundry
Concentrate (Powder) ☆

You know the deliciousness of clean clothes right out of the wash? Fresh Laundry takes it to the next level. The natural-enzyme formula leaves clothes extra clean while being gentle on the planet. Which means you can bury your nose in a pile of clean laundry and breathe a little easier.

Also available in a fragrance-free formula.

Benefits

- This little 5.5-pound box washes 88 loads, 30% more loads than the same amount of Ultra Tide® Powder.*
- Super performance — enzyme-activated cleaners keep whites white and colors bright.
- Safe on all washable fabrics — and effective in hard or soft water.
- Formulated to help prevent dyes in colored clothes from transferring from one garment to another during wash.

Did you know?

Many laundry powders may contain irritants that can be absorbed through the skin or inhaled — a common cause of allergic response. Triethanolamine dodecylbenzenesulfonate is such an irritant, and is on the EPA and DOT hazardous substances list. Contact can irritate and burn the skin and eyes, breathing it can irritate the nose, throat and lungs causing coughing, wheezing and/or shortness of breath. Repeated skin contact may cause dryness, itching, chronic irritation, and rash.

Fresh Laundry Concentrate does not contain these hazardous ingredients.

Shaklee Difference

SAFE
- ✔ Hypoallergenic
- ✔ No chlorine
- ✔ Safe for use on all washable fabrics

POWERFUL
- ✔ Superconcentrated
- ✔ Just one ounce cleans a medium load of laundry
- ✔ Great in all temperatures, even in cold water
- ✔ Helps keep your whites white and colors bright

GREEN
- ✔ Natural sustainably sourced ingredients
- ✔ Biodegradable surfactants
- ✔ No phosphates, borates, nitrates
- ✔ No dyes
- ✔ Recyclable packaging
- ✔ Safe for septic systems

*This label comparison was done on May 25, 2011, and is valid only for the named product marketed at that time.

All trademarks are the property of their respective owners.

Fresh Laundry
Concentrate (Powder)

Shaklee®
Creating Healthier Lives®

Directions for best results

Sort wash loads by color, fabric, and amount of soil. Wash noncolorfast items separately.

Pretreat stubborn stains: Spot test for colorfastness before treating garment. Wet problem area with undiluted Fresh Laundry Concentrate Liquid. Rub into fabric. For maximum cleaning, wait several hours before washing. For getting rid of specific stains, see guide on side panel.

Select the proper water temperature for the fabric being washed.
Cool: Delicate and synthetic fabric and noncolorfast items
Warm: Lightly soiled clothes, cottons, linens, and permanent press
Hot: Heavily soiled colorfast articles, white cottons, and linens

Front-loading washers and medium loads: Use 1 oz. per load.

Top-loading washers and large loads: Use 2 oz. per load.

Add Fresh Laundry Concentrate Powder to water. Because Fresh Laundry Concentrate Powder is a powerful, concentrated formula, it should be dissolved prior to contact with fabrics.

Add clothes to washer. Never overload. Mix large and small items for a balanced load. Select proper water level. Check garment labels for directions on proper care; flame-retardant fabrics may require special washing procedures.

Sizes available

- Fresh Laundry Concentrate (Powder), 5.5 lb. (#00159) ☆
- Fresh Laundry Concentrate (Powder), 14 lb. (#00160) ☆
- Fresh Laundry Fragrance Free Concentrate (Powder), 5.5 lb. (#00161) ☆

Use with the following Get Clean products

- Nature Bright® Laundry Booster and Stain Remover, 32 oz. (#00305) ☆
- Soft Fabric Concentrate (#00307)
- Soft Fabric Fragrance Free Dryer Sheets (#00306)

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2 lb. Pouch Dispenser

Nature Bright®

Laundry Booster and Stain Remover ☆K

Babies. Grass. Mashed potatoes and gravy. Some really nice things can cause some really nasty stains. Some really nice things can also get them out. Natural enzymes and active oxygen re-brighten laundry, de-stain upholstery, and way more. No smelly bleach. Nice.

Benefits

Powerful Laundry Booster — Natural enzymes and active oxygen keep whites white and colors bright while removing stains.

- Excellent laundry pretreatment on organic stains like blood, grass, and much more.
- Powerful chlorine-free laundry booster — effective alternative to chlorine bleach.
- Color safe and can be used with any washable fabric.

Powerful Stain Remover — Removes stubborn stains on surfaces like kitchen and bath surfaces and effectively cleans outdoor patio furniture.

- Tackles the toughest organic stains and will effectively remove wine, grape juice, blood, perspiration, grass, grease, food stains, coffee, mold and mildew stains, and much more.

Did you know?

Chlorine is the chemical most frequently involved in household poisonings and is a potent environmental pollutant. Chlorine is a part of a class of chemical compounds that may cause reproductive, endocrine, and immune system disorders. Chlorine should never be mixed with ammonia. This mixture can generate toxic chloramine gas. Products that contain ammonia include some all-purpose and bathroom cleaners, dishwashing detergents, and metal polishes. Chlorine also degrades natural and synthetic fibers.

Get Clean products do not contain chlorine.

Shaklee Difference

SAFE

- ✔ Safe for use on all washable fabrics
- ✔ No chlorine
- ✔ Fragrance free
- ✔ No toxic fumes

POWERFUL

- ✔ Powerful chlorine-free laundry booster; natural enzymes keep whites white and colors bright
- ✔ Removes rust and hard water deposits and is comparable to Scrubbing Bubbles® Toilet Cleaning Gel when used as a toilet bowl cleaner*
- ✔ Removes soil stains 14% better than OxiClean® Versatile Stain Remover Powder, and is comparable to Clorox 2® Stain Fighter when used as a laundry additive during soaking and washing; comparable to OxiClean® Versatile and Resolve® In-Wash Stain Remover in overall soil removal when used as a laundry booster*
- ✔ Performs in all temperatures, even cold water
- ✔ Effective in soft or hard water

GREEN

- ✔ Natural — powered by natural enzymes and active oxygen
- ✔ Biodegradable surfactants
- ✔ No phosphates
- ✔ No dyes
- ✔ Safe for septic tanks

REPLACES PRODUCTS SUCH AS:

- ✔ Non-chlorine bleach
- ✔ Bleach
- ✔ Stain fighter

*These performance comparisons were conducted on May 13 (toilet bowl cleaner) and May 17 (laundry additive), 2011, respectively, and are valid only for the named products marketed at that time.

Nature Bright®
Laundry Booster
and Stain Remover

Shaklee®
Creating Healthier Lives®

Usage

Laundry

Dissolve in warm water and use within six hours. Don't let Nature Bright touch wet fabric. Check fabric label instructions. Test for colorfastness (especially nylon, acetate, silk or washable wool): apply a solution of 1/2 teaspoon Nature Bright dissolved in 2 cups hot (not boiling water) to a hidden area. If color doesn't bleed or fade, proceed with use. Not intended for use in spray bottles.

laundry medium loads		1/2 scoop (1 tbsp.). Add to every load with detergent.
large loads		1 scoop (2 tbsp.). Add to every load with detergent.
soaking		2 scoops (4 tbsp.) in 1 gallon water. Add your dirty stuff. Soak 1–6 hours, then rinse or wash well.

General Stain Removal

general stain removal		1 scoop (2 tbsp.) per 16 oz. water. For water soluble fabrics and surfaces, put right on stain. Wait 1–5 minutes. Blot with white towel. Repeat if you have to. Rinse well and let dry.

Sealed Linoleum, Porcelain, Tile, or Lawn Furniture

sealed linoleum, porcelain, tile, or lawn furniture		2–4 scoops (4–8 tbsp.) per gallon of water. Pour solution onto surface, or sponge on. Wait 5–30 minutes. Scrub if needed to remove stains. Rinse well with water. Don't allow solution to dry on the surface.

Toilets

toilets

- Flush toilet
- Pour 2 scoops of Nature Bright
- Add 1/4 tsp. of Basic H²® Organic Super Cleaning Concentrate
- Scrub with toilet brush
- Wipe toilet surfaces and handles with Germ Off Disinfecting Wipes

Grout Discoloration, Nonslip Shower or Bathtub

grout discoloration, nonslip shower or bathtub

- Wet sponge
- Dip sponge into Nature Bright (wear gloves)
- Rub onto surface and wipe off (let remain for 5 minutes for stubborn stains)

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32 fl. oz.
Softens **64** Loads
(Works in both HE and standard washers)

Soft Fabric
Concentrate

Make that next load of laundry silky soft and clean-smelling with Get Clean® Soft Fabric Concentrate. This special plant-based softener adds the cozy goodness your family will love and leaves clothes virtually static free. (No more socks hiding under sheets!) Here's another reason to smile: Soft Fabric is a concentrated, natural, nontoxic, and biodegradable formula, which makes it better for the environment.

Benefits

- HE Compatible! Also ideal for use in standard washers.
- Softens fabrics.
- Controls static cling.
- Makes ironing easier.
- Biodegradable formula naturally softens, reduces wrinkles, and controls static cling.
- Superconcentrated:
  - 32 ounces soften 64 loads, and this small bottle is easy to carry, pour, and store.
  - Gives you even fluffier laundry with better control of static cling.

Why use fabric softener?

Washers and dryers can do a number on your fabrics. They can cause fibers to become stiff and "static-y." The reason? The act of fibers rubbing against one another creates positively and negatively charged ions, which attract to one another. Fabric softeners help soften clothes and reduce static cling by coating fibers with special softening agents that reduce friction and neutralize negatively charged particles. The result?

Smoother sheets and fluffier towels that everyone will love.

Get Clean Soft Fabric Concentrate is a biodegradable formula made with sustainable ingredients from natural sources that get your fabrics supersoft without harming the planet.

Shaklee Difference

SAFE

- ✔ Nontoxic
- ✔ Safe for use on all washable fabrics
- ✔ No toxic fumes
- ✔ pH balanced for effective softening

POWERFUL

- ✔ Superconcentrated — 32 ounces soften 64 loads
- ✔ Just a half ounce softens one load of laundry
- ✔ Helps reduce wrinkles and controls static cling
- ✔ For softening, Shaklee Soft Fabric Concentrate rivals Melaleuca EcoSense® fabric softener*
- ✔ As effective as Ultra Downy®, Snuggle®, and Ultra Suavitel® in static reduction*

GREEN

- ✔ Natural
- ✔ Biodegradable formula
- ✔ No nitrates
- ✔ No phosphates
- ✔ No dyes
- ✔ Recyclable packaging
- ✔ Safe for septic systems

*These performance comparisons were conducted on Feb. 4 and March 7, 2011, and are valid only for the named products marketed at that time.

Soft Fabric
Concentrate

Shaklee®
Creating Healthier Lives®

Helpful tip

Use Soft Fabric Concentrate in the washer followed by a Soft Fabric dryer sheet in the dryer. The concentrate will help reduce wrinkles, and the sheet will further control static cling. Plus, your family's laundry will be softer than ever.

Directions for best results

medium loads		1/2 oz.
large loads		1 oz.

Conventional machine: Dilute Soft Fabric in 1 cup of warm water. Pour into fabric softener dispenser at the start of the wash cycle (or follow washer manufacturer's directions).
HE machine: Pour Soft Fabric into fabric softener dispenser at the start of the wash cycle and fill dispenser with warm water to the maximum fill line (or follow washer manufacturer's directions).
Manual: Add above dilution to final rinse.
Hand wash: Dilute 1/4 oz. in 1 cup of water and mix well. Add to final rinse water. Remember, don't apply concentrate directly to fabric.

Use with the following Get Clean products:

- Nature Bright® Laundry Booster and Stain Remover (#00305) ☆
- Fresh Laundry Concentrate HE Compatible (Liquid), 32 fl. oz. (#00066) ☆
- Fresh Laundry Concentrate HE Compatible (Liquid), 64 fl. oz. (#00114) ☆
- Fresh Laundry Concentrate HE Compatible Fragrance Free (Liquid), 32 fl. oz. (#00300) ☆
- Fresh Laundry Concentrate (Powder), 5.5 lb. (#00159), 14 lb. (#00160) ☆
- Fresh Laundry Concentrate Fragrance Free (Powder), 5.5 lb. (#00161) ☆

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80
Dryer Sheets

Soft Fabric

Fragrance Free Dryer Sheets ☆K

Nothing's more inherently good than soft, fresh bed sheets. Except maybe these innovative dryer sheets. They're veggie-based. They're biodegradable. And they even break in two in the dryer for fair and just distribution of soft, static-free goodness to every last, humble pillowcase.

Benefits

- Softens clothes and helps prevent wrinkles.
- No fragrance.
- Effectively reduces static cling.
- Uses vegetable-derived softening agents.
- Safe with all washable fabrics.
- Automatically tears in half during the drying cycle to distribute softness throughout the load.

Did you know?

Most dryer sheets are made from synthetic fabric and/or polyurathane foam. These materials will never biodegrade.

Soft Fabric Dryer Sheets are biodegradable and recyclable.

Shaklee Difference

SAFE

- ✔ Safe for all washable fabrics
- ✔ Nontoxic
- ✔ Fragrance free
- ✔ No toxic fumes
- ✔ No hazardous chemicals

POWERFUL

- ✔ Adds softness and controls static cling
- ✔ Rivals Snuggle® and Bounce® Free and Sensitive™ at static reduction, and is comparable to Snuggle® in softening*; plus, when you're done, you can throw used Soft Fabric Dryer Sheets in the recycling bin

GREEN

- ✔ Natural — vegetable-based softener
- ✔ Biodegradable sheets
- ✔ Recyclable sheets
- ✔ Recyclable packaging
- ✔ No dyes

REPLACES PRODUCTS SUCH AS:

- ✔ Fabric softener sheets
- ✔ Dryer sheets

*This performance comparison was done on May 13, 2011, and is valid only for the named products marketed at that time.

Soft Fabric
Fragrance Free
Dryer Sheets

Shaklee®
Creating Healthier Lives®

Directions for best results

Add an unfolded fabric softener sheet at the beginning of each drying cycle. For large loads, use two sheets. Remove and toss dryer sheets into your recycling bin.

For even better results: Separate sheet along perforated lines and place both halves in the dryer for effectiveness and reducing chances of blocking dryer vents. Use a low heat setting for synthetics. If a dryer sheet leaves a spot, don't worry: brush the fabric with soap and water and re-wash.

Size available

- Soft Fabric Fragrance Free Dryer Sheets, 80 sheets (#00306) ☆

Use with the following Get Clean products

- Nature Bright® Laundry Booster and Stain Remover (#00305) ☆
- Fresh Laundry Concentrate (Liquid), 32 fl. oz. (#00066) ☆
- Fresh Laundry Concentrate (Liquid), 64 fl. oz. (#00114) ☆
- Fresh Laundry Concentrate (Powder), 5.5 lb. (#00159), 14 lb. (#00160) ☆
- Fresh Laundry Fragrance Free Concentrate (Powder), 5.5 lb. (#00161) ☆
- Soft Fabric Concentrate, 32 fl. oz. (#00307)

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Our Environmental Heritage

Founded in 1956, Shaklee is the first company in the world to be Climate Neutral™ certified to totally offset its greenhouse gas emissions, resulting in a net-zero impact on the environment. For more than 50 years, Shaklee has quietly led the way in environmental stewardship and support of social causes.

Milestones

1956 Dr. Forrest C. Shaklee founds a company based on Living in Harmony with Nature® that is committed to developing products to improve the health of people and the planet.

1960s Shaklee introduces Basic-H® Concentrated Organic Cleaner, one of the first nontoxic, biodegradable cleaners.

1970s Shaklee introduces one of the first biodegradable laundry detergents that contains no phosphates, nitrates, or borates.

1980s

1985 Shaklee is selected by the Wild Dolphin Project to provide environmentally friendly cleaning products for use onboard their research vessel, *Stenella*. The Wild Dolphin Project is dedicated to studying the habitat of dolphins; the organization's relationship with Shaklee continues today.

1986 Shaklee provides financial support and products for the first recorded, unsupported expedition by dog sled to the North Pole, led by *National Geographic*® award-winning polar explorer, author, and educator Will Steger.

1987 Shaklee is selected by Jacques Cousteau and the Cousteau Society to provide environmentally friendly cleaning products for use onboard their research vessels, the *Calypso* and *Alcyone*.

1989 Shaklee helps build schools and health clinics and plants more than 1 million trees in Asia through a partnership with the American Himalayan Foundation, an organization chaired by Sir Edmund Hillary.

1989-90 Shaklee provides financial and product support for a trans-Antarctica expedition led by Will Steger, the first crossing of Antarctica on foot, covering 3,700 miles. Following this expedition, Steger testified before Congress on polar and environmental issues and co-founded the Center for Environmental Education.

1990s

1990 Nontoxic and biodegradable Basic-H® from Shaklee is chosen as one of the first official Earth Day products.

1991 Shaklee household cleaners and personal care products are selected to be used in the Biosphere 2 Project in Arizona.

1991 Shaklee introduces Basic-D®, one of the first phosphate-free automatic dishwashing detergents.

1992 Shaklee Cares®, a nonprofit organization, is established and dedicated to providing relief from natural disasters such as tornadoes and hurricanes whose severity has been compounded by climate change.

1995 Shaklee provides financial and product support for the third International Arctic Project led by Will Steger, the first surface-crossing of the 2,500-mile-wide Arctic Ocean. The expedition brings information about environmental issues and changes to the polar landscape to millions of schoolchildren worldwide.

1996 Shaklee environmentally friendly cleaning products are selected by Ocean Alliance and the Whale Conservation Institute to be used onboard the Odyssey, a research vessel that gathers data on contaminants throughout the world's oceans. This relationship continues today.

1996 Shaklee partners with Kids for Saving Earth Worldwide to produce Earth Works Central, an environmental resource kit for schools, parents, and community organizations.

1998 Shaklee becomes a Charter Partner of the U.S. EPA's Climate Wise Program, which set aggressive corporate-wide greenhouse gas reduction goals.

Milestones (continued from previous page)

2000s

2000 Shaklee becomes the first company in the world to be Climate Neutral® certified to totally offset its greenhouse gas emissions, resulting in a net-zero impact on the environment.

2000 Shaklee opens its World Headquarters, one of the first green, energy-saving, award-winning buildings designed using sustainable materials, including certified sustainable wood, recycled carpets, and recycled plastics. In 2001, Shaklee received the Savings by Design Energy Efficiency Integration Award from the American Institute of Architects.

2005 Shaklee becomes a major partner of the Green Belt Movement, founded by Dr. Wangari Maathai, the 2004 Nobel Peace laureate.

2006 Dr. Wangari Maathai becomes the Global Ambassador for *A Million Trees. A Million Dreams*™, a Shaklee environmental campaign that raises awareness of global climate change and initiates efforts to plant trees in North America and Africa.

2006 Shaklee becomes a Charter Partner of the U.S. EPA's Climate Leaders program and pledges to maintain a net- zero impact on climate change and offset 100% of its greenhouse gas emissions through 2009.

2006 Shaklee is commended by President Bill Clinton and recognized at the Clinton Global Initiative for its leadership in becoming carbon neutral and creating renewable energy in Africa.

2007 Shaklee becomes a founding member of the Business Council on Climate Change, an organization of businesses that serves as an inspiration and model of global climate stewardship by implementing effective and economically sound solutions to climate change.

2007 Shaklee partners with Millennium Promise to facilitate direct emissions reductions by providing sustainable solar energy to electrify villages in Malawi, a democratic country in southeastern Africa. Millennium Promise is an organization established by Dr. Jeffrey D. Sachs that prototypes ways to implement the United Nations' Millennium Development Goals.

2007 Shaklee provides financial and product support for polar explorer Will Steger and his GlobalWarming101.com expedition. This expedition includes an extensive educational outreach campaign to students throughout America to raise awareness of the impact of global climate change on five Inuit communities in the Arctic.

2007 Shaklee is the first consumer products company to offset 100% of its greenhouse gas emissions through the U.S. EPA Climate Leaders program and use 100% green power.

2007 Shaklee is selected by the nation's leading child advocacy group, Healthy Child Healthy World, to be the exclusive partner for a new video, *Creating Healthy Environments for Children*.

2007 Shaklee is selected by the producers of *The 11th Hour,* a feature-length documentary narrated by Leonardo DiCaprio, as a partner for its exemplary environmental leadership.

2008 Shaklee named to the Top 20 Retail Partner list by the EPA Green Power Partnership in recognition of being a top purchaser of green power.

2009 Shaklee achieves EPA Climate Leaders goal of net-zero U.S. greenhouse gas emissions from 2006–2009.

Greenhouse Gas Reduction Projects

Offset-projects include:

- Shaklee converts boilers in the Portland School District from oil to natural gas.
- Shaklee sponsors a rural electrification project in Sri Lanka and India to replace kerosene lamps and diesel generators with solar photovoltaics that reduce greenhouse gas emissions and improve health for rural-dwelling families.
- Shaklee supports the construction of the Rosebud Sioux Tribe Wind Turbine Project, the first large-scale Native American owned and operated wind turbine.
- Shaklee supports a project to convert San Bernardino County school buses from petroleum-based diesel fuel to biodiesel fuel formulated from recycled cooking oil.

Awards Bestowed on Shaklee

- **1990** Family Circle® Green-Chip Award as one of the 10 most environmentally conscious companies.
- **2001** Governor's Environmental and Economic Leadership Awards—Certificate of Recognition—from the California Environmental Protection Agency.
- **2001** The Edmund G. "Pat" Brown Award from the California Council for Environmental and Economic Balance.
- **2001** Savings by Design Energy Efficiency Integration Award, co-sponsored by the American Institute of Architects and California Council.
- **2001** Vision for Tomorrow Award from the Direct Selling Association.
- **2002** U.S. Environmental Protection Agency Climate Protection Award.
- **2002** Environmental Stewardship Award from Social Accountability International.
- **2003** Gold Medal Award for Environment & Sustainability from the *Nutrition Business Journal*®.
- **2003** National Environmental Excellence Award from National Association of Environmental Professionals.
- **2006** The U.S. EPA recognizes the Shaklee pledge as a Climate Leaders partner to maintain net-zero greenhouse gas emissions from 2006 to 2009.
- **2007** Shaklee is honored with a Global Green USA Organizational Design Award for its outstanding leadership effecting positive environmental change.
- **2007** Shaklee is designated a Green Power Partner by the U.S. Environmental Protection Agency.
- **2008** Shaklee Corporation is honored with a Stevie Award at the Sixth Annual American Business Awards for Best Corporate Environmental Responsibility Program.
- **2008** Shaklee named to the Top 20 Retail Partner list by the EPA Green Power Partnership in recognition of being a top purchaser of green power.
- **2009** Roger Barnett is honored with a Clean Air Award by Breathe California in recognition of Shaklee Corporation's contributions to reducing global warming and improving air quality.
- **2009** Shaklee is honored with the Business Environmental Award for Sustainability from Acterra: Action for a Healthy Planet.
- **2009** Shaklee is honored with a Green Power Leadership Award from the U.S. Environmental Protection Agency, in recognition of its commitment and contribution to helping advance the development of the nation's voluntary green power market.

Testimonials

"I don't know a company that's doing more to make environmental stewardship part of its core business practice and its commitment to the public than Shaklee. I have to say it's really quite impressive to see a company that committed to go carbon neutral before it became fashionable. You know it's a big deal in 2007 to do it, but here's a company that thought of it seven years ago. That really deserves credit and what a leadership position it provides for Shaklee."

Dan Esty, professor at Yale, director of the Center for Business and Environment at Yale, and co-author of *Green to Gold: How Smart Companies Use Environmental Strategy to Innovate, Create Value, and Build Competitive Advantage*

"Your efforts to make your operations carbon neutral and ensure that Shaklee products leave a light footprint on the earth are pioneering. Your support means a lot to me and the Green Belt Movement. Of the 4.6 million trees Green Belt groups—mostly poor, rural women—planted in Kenya in 2006, 100,000 were Shaklee-supported. These seedlings are helping restore some of Kenya's critical landscapes where deforestation, soil erosion, and erratic rainfall threaten ecosystems."

Dr. Wangari Maathai, 2004 Nobel Peace laureate and founder of the Green Belt Movement

"We're delighted to partner with the Shaklee Corporation. Partnerships with private companies are crucial to the overall mission to end poverty in the poorest places of the world. Promoting solar energy in African villages will not only provide much-needed electricity, but also encourage renewable energy sources as a sustainable model."

Dr. Jeffrey Sachs, president and co-founder of Millennium Promise, a nonprofit organization working to support the United Nations' Millennium Development Goals to end extreme poverty in Africa by 2015

"This is a commitment I love. Roger Barnett, the president of Shaklee Corporation, has made a commitment for his company to become net fully carbon neutral, 100% carbon neutral. Shaklee intends to oversee the purchasing and installation of solar energy to provide decentralized electrification to the Millennium Villages that Dr. Jeff Sachs is doing so much to develop. This is a great deal. Thank you very much, Roger, and thank you, Shaklee."

President Bill Clinton, closing address of Clinton Global Initiative, Sept. 22, 2006

"Shaklee's interest in protecting the environment makes the company a perfect partner. For the past 20 years, we couldn't have been successful without the support of the Shaklee community. The high quality of Shaklee products is essential for us in what we do because failure is not much of an option when it comes to survival."

Will Steger, *National Geographic*® award-winning polar explorer

"We are proud to partner with Shaklee, a company that we admire for its commitment to protect the environment."

Leila Conners Petersen and Nadia Conners, co-directors and producers; Stephan McGuire, associate producer, of *The 11th Hour*

"My many compliments to Shaklee's historical commitment to health, wellness, and environmental stewardship for over 50 years. They have demonstrated time and time again that creating healthy environments for families, especially children, is a driving focus in their product development and a core principle in operations and business practices."

Christopher Gavigan, executive director and CEO of Healthy Child Healthy World

"Our nation is shifting to a 'green culture,' with more and more Americans understanding that environmental responsibility is everyone's responsibility. EPA commends Shaklee Corporation for making a long-term commitment to protecting the environment by purchasing green power."

Stephen L. Johnson, EPA administrator

"By using renewable energy, Shaklee Corporation is helping our environment by leading our national transition to clean energy; they are a model for others to follow."

Kathleen Hogan, Director of EPA's Climate Protection Partnerships Division

Shaklee®

GET CLEAN® Products	Ingredient Description	Natural ingredients	Contains sustainably sourced natural ingredients	Uses biodegradable surfactants	Hypoallergenic	Fragrance free	Phthalate-free fragrance	No animal testing	Chemicals you won't find in Get Clean: Kerosene, phenols, cresol, lye, hydrochloric acid, sulfuric acid, sulfamic acid, petroleum distillates, ammonia, sodium hydroxide, butyl cellosolve, phosphoric acid, formaldehyde, chlorine bleach, morpholine, phtalates.	Environmental contaminants you won't find in Get Clean: volatile organic cleaning compounds, phosphates, nitrates, artificial colors.	Food allergens you won't find in Get Clean: (except as indicated below) milk/ dairy, peanut, soy, wheat gluten (in wheat, oats, rye, barley), fish, shellfish, mango, sesame, sunflower, kiwi, tropical fruits, melons, eggs, seeds.	Environmentally friendly packaging uses water-based inks, recyclable or sourced reduced* materials, and contains no bisphenol-A.
Basic H2® Organic Super Cleaning Concentrate	**Concentrated:** naturally derived cleaning agents (corn- and coconut-based surfactant), natural thickener, biodegradable preservative, and water.	99.95%	✓	✓	✓	✓		✓	✓	✓	Coconut	✓
Basic H2® Organic Super Cleaning Wipes	**Biodegradable:** naturally derived cleaning agents (corn- and coconut-based surfactant), preservative, and water on a biodegradable wipe.	99.65%	✓	✓	✓	✓		✓	✓	✓	Coconut	✓
Scour Off™ Heavy-Duty Paste	**Concentrated:** unique abrasive scouring paste composed of 75% natural silica abrasive; paste consists of coconut-derived surfactant, preservative, natural color, solublizer, and water.	99.0%	✓	✓			✓	✓	✓	✓	Coconut	✓
Dish Wash Concentrate (for hand-washing dishes)	**Concentrated:** unique combination of naturally derived surfactants (corn-and coconut-based surfactant), mineral salts, surfactants, stabilizers, and water.	93.0%	✓	✓	✓		✓	✓	✓	✓	Coconut	✓
Dish Wash Automatic Concentrate (Powder)	**Concentrated:** patented, phosphate-free dishwasher detergent. Bleach free, preservative free. Contains mineral salts, citric acid, surfactants, antiredesposition agent, water softener, and natural stain-removing enzymes.	94.0%		✓		✓		✓	✓	✓	✓	✓*
Fresh Laundry Concentrate Liquid HE	**Concentrated:** low-foaming blend of naturally derived cleaning agents (corn-and coconut-based surfactant), vegetable glycerin, mineral salts, antiredeposition agents, vegetable enzymes to remove protein and starch stains and to protect fabrics, antifoaming agents, natural enzymes, optical brighteners, and water; preservative free, bleach free.	84.0%	✓	✓	✓	Available in fragrance-free formula	✓	✓	✓	✓	Coconut	✓
Fresh Laundry Concentrate (Powder)	**Concentrated:** natural coconut-derived cleaning agents, natural builders, optical brightener, mineral salts, and antiredesposition agents; bleach free, preservative free, phosphate free. Fragrance-free option available.	91.0%	✓	✓	✓	Available in fragrance-free formula	✓	✓	✓	✓	Coconut	✓
Soft Fabric Concentrate	**Concentrated:** naturally derived fabric softeners, mineral salt, and water; preservative free.	99.4%	✓	N/A			✓	✓	✓	✓	✓	✓
Nature Bright® Laundry Booster and Stain Remover	**Concentrated:** natural mineral-derived fabric whiteners, coconut-derived surfactant, mineral salts, natural enzymes, and optical brightener; preservative free, fragrance free.	99.4%	✓	✓		✓		✓	✓	✓	Coconut	✓*
Soft Fabric Dryer Sheets	**Biodegradable:** 100% vegetable-derived fabric softeners on biodegradable sheets; preservative free, fragrance free.	100%	✓	N/A	✓	✓		✓	✓	✓	✓	✓
Hand Wash Concentrate	**Moisturizing:** unique combination of naturally derived cleaning agents and skin-nourishing botanicals, preservative, and water (see ingredient declaration on product label).	95%	✓	✓	✓		✓	✓	✓	✓	Soy, Coconut	✓
Germ Off Disinfecting Wipes	A fragrance-free disinfecting wipe; quaternary ammonium active ingredients and water. (see ingredient declaration on product label).	(Germ Off is a product registered by the U.S. Environmental Protection Agency. EPA regulations forbid all such products from making claims regarding absent ingredients, natural content, etc., unless specifically authorized).										

*Source reduction is based on comparison with hard plastic container.

The real dirt on clean.

You know that good, healthy feeling you get when you've just cleaned house? Sorry to spoil it, but you may have just made your home dirtier.

Think of it this way. You wouldn't let your kids play with toxic chemicals, so why would you let the baby crawl over a floor that's just been wiped with them? That's much more dangerous than the orange juice that was just there.

How dangerous? Just take a look at these statistics.

- Over **90% of poison exposures** happen at home.
- Common chlorine bleach is the **#1 household chemical** involved in poisoning.
- Organic pollutants, found in many common cleaners and even air fresheners, are found at levels **2 to 5 times higher inside your home** than out.
- A person who spends 15 minutes cleaning scale off shower walls **could inhale three times** the "acute one-hour exposure limit" for glycol ether-containing products set by the California Office of Environmental Health Hazard Assessment.
- Common cleaners give off fumes that can potentially **increase the risk of kids developing asthma**, the most common chronic childhood disease.
- **1 in 13** school-aged children has asthma. Rates in children under 5 have **increased more than 160%** from 1980 – 1994.
- **Children are highly vulnerable to chemical toxicants.** Pound for pound of body weight, children drink more water, eat more food, and breathe more air than adults. The implication of this is that children will have substantially heavier exposures than adults to any toxicants that are present in water, food, or air.
- If your home is anything like the average U.S. home, you generate **more than 20 pounds of household hazardous waste** each year (the EPA designates toilet cleaners, tub and tile cleaners, oven cleaners, and bleach as hazardous waste).

To find out what's lurking on your shelves, go to the National Institutes of Health Library of Medicine Household Products Database. You can search almost any brand of cleaner you use, find out what's in it, and uncover its links to health effects. Or search by chemical ingredients (see list below for some examples) and discover what brands contain it. The information may shock you.
www.householdproducts.nlm.nih.gov/ingredients.htm

Chemical ingredients to look out for:

- Sodium hydroxide
- Hydrochloric acid
- Butyl cellosolve (2-Butoxyethanol)
- Formaldehyde
- Bleach (sodium hypochlorite)
- Ammonia
- Sulfamic acid
- Petroleum distillates
- Sulfuric acid
- Lye (potassium hydroxide)
- Morpholine

GET CLEAN®

Safe for you, your home, and your planet.®

4 simple ways to Get Clean.

Your home should be the safest, healthiest, cleanest place in the whole world.

So we've put together some pretty easy things you can do to make your family safer and your home healthier. And, as it turns out, what's good for your home is good for the earth and everyone else on it, too. So let's make our homes healthy. Let's clean our hearts out. Let's Get Clean.

1. **Get the dirt.** Educate yourself about what you bring into your home at **www.householdproducts.nlm.nih.gov/products.htm**

2. **Have a clean-for-all.** Put on the gloves and get rid of the nasty stuff in your home. Responsibly, of course. Your local waste collection service has guidelines for proper household hazardous waste disposal, as well as collection sites for things like paint, batteries, and cleaners. Whatever you do, please don't toss this stuff in the garbage.

3. **Welcome healthy into your home.** Commit to carefully considering everything that crosses your doorstep. Here are some safe, healthy things to have in your home:
   - Cleaners that are truly cleaner. Get Clean offers product choices that are: nontoxic, natural, biodegradable, concentrated, and hypoallergenic. To learn more, please visit Shaklee.com.
   - Fresh air. Open your windows to reduce indoor air pollution.
   - Essential oils. Use these instead of air fresheners.
   - Plants. Besides being nice to look at, they can absorb harmful gases and help clean the air.
   - Organic cotton bedding. Avoid standard bedding treated with chemicals.
   - Floors made of recycled and renewable resources.
   - Healthier paint. That new paint smell can be as nasty as it smells. Choose low VOC paint instead.

4. **Clean up our collective home.** Make the earth healthier for all of us who call it home by using these things in yours:
   - Compact fluorescent lighting. They last a whole lot longer.
   - Energy Star-rated appliances. Save money and energy.
   - A low-flush toilet. Replace the largest user of water in your house. Ultra low flushers cut water use by one-fifth.
   - Low-flow showerheads. Same pressure. Less water.
   - Your flicker finger. Turn off lights and appliances when you're not using them.
   - Gray water system. Install one to recycle used household water for your lawn.
   - Tankless water heater. Save money, energy, and space in the broom closet. Use it to store your new Get Clean Starter Kit.

Shaklee®

NATURAL • SAFE SINCE Shaklee 1956 100% GUARANTEED

Data Related to Typical Household Cleaners

Compiled by Shaklee Corporation, May 2007

Exposure to Household Chemicals

- **There are over 80,000 chemicals registered with the EPA and less than 20% of them have been tested for toxicity.** Today there are more than 80,000 synthetic chemicals. Dr. Philip Landrigan, Professor of Community and Preventative Medicine at Mount Sinai School of Medicine, said less than 20% of the estimated chemicals manufactured in the past 50 years have been assessed for their neurotoxicity. Children, because of their size and more future years of life, have a higher risk of early and prolonged exposure to chemicals than adults. The National Research Council (NRC), which is part of the National Academy of Sciences, conducted a study of 100 random chemicals. The study found that nearly 78 percent of these chemicals lacked even minimum toxicity standards. Sources: U.S. EPA, New Chemicals Program; Landrigan, P.J., et al, (2006). The national children's study: a 21-year prospective study of 100,000 American children. *Pediatrics*, 118(5), 2173-2186.
- **A person who spends 15 minutes cleaning scale off shower walls could inhale three times the "acute one-hour exposure limit" for glycol-ether containing products set by the California Office of Environmental Health Hazard Assessment.** Sources: News-Medical.Net; University of California at Berkeley.
- **It has been estimated that a person who cleans four houses a day, five days per week, 50 weeks per year, could inhale about 80 micrograms per day of formaldehyde, double the guideline value set by California's Proposition 65**. In addition, the person's intake of fine particulate matter during the hours spent cleaning would exceed the average federal guideline level for an entire year. These quantities are in addition to the formaldehyde and particulate matter that the person would be exposed to from all other sources and activities during the year. Sources: News-Medical.Net; University of California at Berkeley, Household Chemicals.
- **Several chlorinated chemicals can cause cancer and other serious health problems.** Chlorinated chemicals can come from consumer products, dry-cleaned clothes, and treated municipal water. Air levels of these chemicals, therefore, are generally higher in the home than outdoors. Many commonly used consumer products contain chlorinated chemical solvents, such as trichloroethylene, methyl chloroform, perchloroethylene, and methylene chloride. These products include glues, spot removers, spray cleaners, water repellents, spray paints, paint strippers, and automotive products. Sources: California Environmental Protection Agency, Air Resources Board, Chlorinated Chemicals in Your Home, May 2001.
- **Studies from the United States and Europe indicate that people living in industrialized nations spend more than 90% of their time indoors**. Source: EnviroSense Fact Sheet. Safe Substitutes at Home: Non-toxic Household Products.
- **Organic pollutants are 2 to 5 times higher inside homes than outside**. According to the EPA, sources of organic pollutants from household cleaners include: solvents; wood preservatives; aerosol sprays; cleansers and disinfectants; and air fresheners. Health effects from organic pollutants include: Eye, nose, and throat irritation; headaches, loss of coordination, nausea; damage to liver, kidney, and central nervous system. Many organic compounds are known to cause cancer in animals; some are suspected of causing, or are known to cause, cancer in humans. Source: U.S. EPA.

Vulnerability of Children

- **"We are conducting a vast toxicologic experiment in our society, in which our children and our children's children are the experimental subjects**," stated pediatrician Herbert L. Needleman. Little information on possible toxic potential is available for the 80,000 chemicals registered today with the U.S. Environmental Protection Agency (EPA). Of the 3,000 chemicals produced or imported at over 1 million pounds a year, only 43% have received even minimal toxicologic assessment, and a mere 23% have been tested to determine whether they have the potential to cause developmental damage. Source: Landrigan, P.J. & Weiss, B. (2000). Environmental Health Perspectives Supplements, v107 supplement 3, June.
- **Children are highly vulnerable to chemical toxicants. Pound for pound of body weight children drink more water, eat more food and breathe more air than adults.** The implication of this is that children will have substantially heavier exposures than adults to any toxicants that are present in water, food or air. Source: Landrigan, P.J. & Garg, A. (2002). Chronic effects of toxic environmental exposures on children's health. *Journal of Toxicology: Clinical Toxicology*, 40(4), 449-456.
- **Why are children a sensitive subpopulation?** Children's metabolic pathways, especially in the first months after birth, are immature. Their ability to metabolize, detoxify and excrete many chemicals differs from adults. Source: Landrigan, P.J., et al, (1998). Children's Health and the Environment: A New Agenda for Prevention Research, Environmental Health Perspectives 106, Supplement 3, June.
- **The National Academy of Sciences has recommended that infants and children be considered more vulnerable to chemicals than adults in the absences of evidence to the contrary.** Source: National Research Council (1993). Pesticides in the Diets of Infants and Children; National Academy Press: Washington, DC.
- **Carcinogenic and toxic exposures sustained early in life including prenatal exposures appear more likely to lead to disease than similar exposures encountered later.** Source: Landrigan, P.J. & Garg, A. (2002). Chronic effects of toxic environmental exposures on children's health. *Journal of Toxicology: Clinical Toxicology*, 40(4), 449-456.
- **Faster metabolisms in children speed up their absorption of contaminants.** "Children absorb a greater proportion of many substances from the intestinal tract or lung," says pediatrician Dr. Philip Landrigan. "For example, children take up approximately half of the lead that they swallow while adults absorb only about one-tenth." Source: PBS.org, Trade Secrets: A Moyers Report (2001).
- **Children spend a considerable amount of time putting things in their mouths**. In 1998, scientists at Rutgers University discovered that pesticides sprayed in a home evaporate from floors and carpets, and then re-condense on plastic and foam objects such as pillows and plush toys. By observing how frequently a group of pre-schoolers put clean toys in their mouths, the researchers calculated that contaminated toys are likely to give young children much higher doses of poison than adults would get in the same environment. Source: PBS.org, Trade Secrets: A Moyers Report (2001).

Vulnerability of Children (continued)

- **Children have more time to develop chronic diseases triggered by early exposures.** Many diseases that are caused by toxicants in the environment require decades to develop. Source: Landrigan, P.J. & Garg, A. (2002). Chronic effects of toxic environmental exposures on children's health. *Journal of Toxicology: Clinical Toxicology*, 40(4), 449-456.
- **Babies don't excrete contaminants or store them away in fat in the same ways that adults do, making the poisons more available to affect rapidly growing bodies.** Furthermore, because a baby's immune system is not fully functional, a baby's body cannot counteract toxic effects as well as an adult can. In an adult, a blood-brain barrier insulates the brain from many of the potentially harmful chemicals circulating through the body. But in a human child, that barrier isn't fully developed until six months after birth. Source: PBS.org, Trade Secrets: A Moyers Report (2001).
- **Many contaminants such as dioxins and PCBs have an affinity for fatty tissue.** During pregnancy, women mobilize their amassed stores of body fat to provide nourishment for their growing babies; the contaminants in the fat are then passed to their children. Nursing mothers also transfer a good portion of their lifetime accumulation of chemicals to their babies. Source: PBS.org, Trade Secrets: A Moyers Report (2001).
- **Children exposed in the womb are at greatest risk of all**. Because cellular structures change so rapidly during embryonic and fetal growth, a toxic exposure at the wrong moment can permanently alter further development. According to Dr. Landrigan, the central nervous system is especially vulnerable. To function properly, the developing brain must lay down an intricate web of interconnecting neurons. Small doses of neurotoxins during critical periods of brain development can alter those crucial neural pathways – one mistake early on, and the brain may be forever changed in subtle or serious ways. Government and university scientists are currently investigating the possibility of a connection between fetal exposures to toxics and developmental disabilities such as attention deficit hyperactivity disorder (ADHD). Source: PBS.org, Trade Secrets: A Moyers Report (2001).
- **Children's metabolic pathways, especially in the first months after birth, are immature.** Their ability to metabolize, detoxify and excrete many chemicals differs from adults. Source: Landrigan, P.J. & Garg, A. (2002). Chronic effects of toxic environmental exposures on children's health. *Journal of Toxicology: Clinical Toxicology*, 40(4), 449-456.

Health Issues

Asthma Population Statistics

Overall Asthma Statistics

- **Approximately 20 million Americans have asthma.**
  Source: American Lung Association, (2005). Epidemiology & Statistics Unit, Research and Program Services. Trends in Asthma Morbidity and Mortality
- **The prevalence of asthma increased 75% from 1980-1994.** Source: Centers for Disease Control. Surveillance for Asthma, United States, 1960-1995, MMWR. 1998; 47 (SS-1).

Children

- **Nine million U.S. children under 18 have been diagnosed with asthma.** Source: Summary Health Statistics for U.S. Children: National Health Interview Survey, 2002. Series 10, Number 221.2004-1549
- **Asthma is the most common serious chronic disease of childhood.** Source: Asthma and Allergy Foundation of America. Asthma Facts and Figures.
- **Asthma rates in children under the age of five have increased more than 160% from 1980-1994.** Source: Centers for Disease Control. Surveillance for Asthma, United States, 1960-1995, MMWR. 1998; 47 (SS-1).
- **An average of one out of every 13 school-aged children has asthma.** Source: EPA Asthma Facts.
- **Asthma is the third-ranking cause of hospitalization among children under 15.** Source: EPA Asthma Facts.

African Americans

- **Asthma prevalence is 39% higher in African Americans than in Caucasians.**
  Source: American Lung Association, (2005). Epidemiology & Statistics Unit, Research and Program Services. Trends in Asthma Morbidity and Mortality.
- **African Americans have highest asthma rates of any racial/ethnic group. Compared to Caucasians:**
  - The rate of emergency department visits is 380% higher
  - The hospitalization rate is 225% higher
  - The asthma death rate is 200% higher
  - In 2004, an estimated 3.5 million African Americans currently had asthma

  Source: EPA asthma facts.

Women

- **The prevalence of asthma in adult females was 42% greater than the rate in adult males according to a 2004 survey by the Center for Disease Control**. Source: National Health Interview Survey, (2006). National Center for Health Statistics, CDC

Household Cleaners and Asthma

- **Common household cleaners and appliances give off fumes, which can potentially increase the risk of developing asthma in children**. Asthma is the most common chronic childhood disease in the developed world and has become more common in the last 30 years. In a 2004 study published in the journal Thorax, it was found that that many common household cleaners and appliances give off fumes, which can potentially increase the risk of developing asthma in children. It was concluded that, "Domestic exposure to Volatile Organic Compounds (VOCs) at levels [even] below currently accepted recommendations may increase the risk of childhood asthma." VOCs are found in many household products and may also be embedded in the house itself as part of the paint, flooring, or furniture. Source: Rumchev, K. et al. (2004).Thorax, 59(9), 746-751.
- **Environmental exposures early in life, including the womb, may influence the development of wheezing and asthma**. In the UK and other developed countries the prevalence of asthma symptoms has increased in recent years. This is likely to be the result of increased exposure to environmental factors. A study was undertaken to investigate the association between maternal use of chemical based products in the prenatal period and patterns of wheeze in early childhood. A dose-dependent relationship was observed between frequency of use of common household chemical products in the prenatal period and persistent wheeze in the resulting offspring. These findings suggest that frequent use of chemical based products in the prenatal period is associated with persistent wheezing in young children. Source: Thorax, Jan 2005 60(1), 45-49.
- **Strong links have been found between the use of domestic and industrial cleaning products and the risk of asthma**. It is well-documented that women who are employed in domestic cleaning are at increased risk for symptoms of obstructive lung disease. There are now at least 6 well-designed epidemiologic studies that have documented a strong link between use of domestic and industrial cleaning products and risk of asthma. For example, in a study of over 4,500 women employed in domestic cleaning it was found that 25% of the asthma cases in the study population could be attributed to domestic cleaning. This led the study authors to conclude that, "Employment in domestic cleaning may induce or aggravate asthma. This study suggests that domestic cleaning work has an important public health impact, probably involving not only professional cleaners but also people undertaking cleaning tasks at home." Source: Thorax, Nov 2003 58(11), 950-954.

Data Related to Typical Household Cleaners

Compiled by Shaklee Corporation, May 2007

Toxicity of Household Cleaners

- **Some cleaning products and air fresheners have unhealthy emissions.** While effective cleaning can improve the healthfulness of indoor environments, this work shows that use of some consumer cleaning agents can yield high levels of volatile organic compounds, including glycol ethers--which are regulated toxic air contaminants--and terpenes that can react with ozone to form a variety of secondary pollutants including formaldehyde and ultrafine particles. Persons involved in cleaning, especially those who clean occupationally or often, might encounter excessive exposures to these pollutants owing to cleaning product emissions. Source: Singer, B.C., et al (2006). Cleaning products and air fresheners: emissions and resulting concentrations of glycol ethers and terpenoids. *Indoor Air*, 16(3), 179-191.
- **All purpose cleaners**. Many all-purpose cleaners contain neurotoxins and nasal irritants that can be absorbed through the skin or inhaled. Synthetic solvents may cause hormone disruption. Maternal exposure to toxic chemicals during pregnancy can disrupt development or even cause the death of the fetus. Effects can include birth defects, low birth weight, biological dysfunctions, or psychological or behavioral deficits that become manifest as the child grows. Sources: Agency for Toxic Substances and Disease Registry (1998); Agency for Toxic Substances and Disease Registry (1999); Scorecard (2007).

  Butyl Cellosolve (2-butoxyethanol, 2-butoxyethanol acetate or Ethylene glycol monobutyl ether)
  - Butyl cellosolve is a high volume chemical with production exceeding 1 million pounds annually.
  - The general population is exposed to 2-butoxyethanol and 2-butoxyethanol acetate mainly by breathing air or having skin contact with liquids, particularly household cleaners, which contain these compounds.
  - Butyl cellosolve is a toxic glycol ether chemical used in cleaning solutions. Material Safety Data Sheet reports potential irritation and tissue damage from inhalation, ingestion, cutaneous, and/or ocular exposure.
  - People who swallowed large amounts of cleaning agents containing Butyl cellosolve experienced breathing problems, low blood pressure, low levels of hemoglobin, acidic blood, and blood in the urine.

  Formaldehyde
  - Formaldehyde is a preservative found in many household products.
  - Formaldehyde is an anticipated carcinogen.
  - Low levels of formaldehyde cause irritation of the eyes, nose, throat, and skin.
  - People with asthma may be more sensitive to the effects of inhaled formaldehyde.
  - Drinking large amounts of formaldehyde can cause severe pain, vomiting, coma, and possible death.
  - In animal studies, rats developed nose cancer from formaldehyde.
- **Automatic Dishwasher Detergents**. Some products contain dry chlorine that is activated when it encounters water in the dishwasher. Chlorine fumes are released in the steam that leaks out of the dishwasher, and can cause eye irritation.

Toxicity of Household Cleaners (continued)

- **Carpet Cleaners.** Carpet cleaners can be extremely toxic to children; who tend to play and crawl around on carpets. The fumes given off by carpet cleaners can cause cancer and liver damage. Carpet and upholstery cleaners accounted for 5397 poison exposures in 2005. The majority of these, exposures, over 3500, involved children under 6. Source: Annual Report of the American Association of Poison Control Centers' National Poisoning and Exposure Database (2005).

  Naphthalene

  - Possible human carcinogen found in moth balls and metal polishes.
  - Exposure to large amounts of napthalene may lead to hemolytic anemia.
  - Napthalene may cause nausea, vomiting, diarrhea, blood in the urine, and a yellow color to skin.
  - Mice that breathed naphthalene vapors daily for a lifetime developed lung tumors and some developed nose tumors.

  Sources: Agency for Toxic Substances and Disease Registry (2005).

- **Bleach**. **The chemical known as hypochlorite in bleach causes more poisoning exposures than any other household cleaning substance.** May cause reproductive, endocrine, and immune system disorders. Source: Annual Report of the American Association of Poison Control Centers' National Poisoning and Exposure Database (2005).
- **Degreasers**. Many degreasers contain petroleum distillates and butyl cellosolve; which can damage lung tissues and dissolve fatty tissue surrounding nerve cells.
- **Drain Cleaners**. One of the most hazardous products in the home, drain cleaners often contain lye or sodium hydroxide; strong caustic substances that cause severe corrosive damage to eyes, skin, mouth and stomach, and can be fatal if swallowed.
- **Glass Cleaners**. Ammonia is found in many glass cleaners and the ammonia fumes can irritate skin, eyes and the respiratory system. Ammonia based glass cleaners accounted for 6,356 poison exposures in 2005. Source: Annual Report of the American Association of Poison Control Centers' National Poisoning and Exposure Database (2005).

  Ammonia

  - Exposure to high levels of ammonia in air may be irritating to your skin, eyes, throat, and lungs and cause coughing and burns.
  - Asthma sufferers may be more sensitive to breathing ammonia than others.
  - Swallowing concentrated solutions of ammonia can cause burns in your mouth, throat, and stomach. Getting ammonia into the eyes can cause burns and even blindness.

  Sources: Agency for Toxic Substances and Disease Registry (2004); U.S. Department of Health and Human Services, Public Health Service.

Toxicity of Household Cleaners (continued)

- **Oven Cleaners.** One of the most dangerous cleaning products, oven cleaners can cause severe damage to eyes, skin, mouth and throat. Source: U.S. Department of Health and Human Services, Agency for Toxic Substances & Disease Registry.

  Sodium hydroxide

  - Sodium hydroxide is very corrosive and can cause severe burns in all tissues that come in contact with it.
  - Sodium hydroxide is odorless; thus, odor provides no warning of hazardous concentrations.
  - Inhalation of sodium hydroxide is immediately irritating to the respiratory tract. Swelling or spasms of the larynx leading to upper-airway obstruction and asphyxia can occur after high-dose inhalation. Inflammation of the lungs and an accumulation of fluid in the lungs may also occur.
  - Cancer of the esophagus has been reported 15 to 40 years after the formation of corrosion-induced strictures.
  - Ingestion of solid or liquid forms of sodium hydroxide can cause spontaneous vomiting, chest and abdominal pain, and difficulty swallowing. Corrosive injury to the mouth, throat, esophagus, and stomach is very rapid and may result in perforation, hemorrhage, and narrowing of the gastrointestinal tract.
  - Skin contact with sodium hydroxide can cause severe burns with deep ulcerations.
  - Sodium hydroxide contact with the eye may produce pain and irritation, and in severe cases, clouding of the eye and blindness.
  - Long-term exposure to sodium hydroxide in the air may lead to ulceration of the nasal passages and chronic skin irritation.

- **Scouring Cleansers.** Some cleaners may contain sodium hydroxide or bleach that can irritate mucous membranes and cause liver and kidney damage.

- **Scale or Lime Removers.** These are products designed to remove mineral buildup like lime, scale and soap scum. Source: ScienceLab.com.

  Sulfamic Acid

  - Sulfamic acid is toxic to lungs and mucous membranes.
  - Direct skin contact with sulfamic acid is corrosive and causes irritation, dryness or burning. Eye contact can result in corneal damage or blindness.
  - Inhalation of sulfamic acid will produce irritation to gastro-intestinal or respiratory tract with burning, sneezing or coughing.
  - Severe over exposure of sulfamic acid can produce lung damage, choking, unconsciousness or death.

Toxicity of Household Cleaners (continued)

- **Toilet Bowl Cleaners**. One of the most dangerous cleaning products, toilet bowl cleaners can contain chlorine and hydrochloric acid. Harmful to health simply by breathing during use. Toilet Bowl Cleaners accounted for 10,461 poison exposures in 2005. Source: Annual Report of the American Association of Poison Control Centers' National Poisoning and Exposure Database (2005).

  Hydrochloride/ Hydrochloric Acid (HCl)
  - HCl can cause severe damage to skin and eyes.
  - Brief exposure to low levels of HCl vapor causes throat irritation.
  - Exposure to higher levels of HCl can result in rapid breathing, narrowing of the bronchioles, blue coloring of the skin, accumulation of fluid in the lungs, and even death.
  - Exposure to even higher levels of HCl can cause swelling, spasm of the throat and suffocation.
  - Some people exposed to HCl may develop an inflammatory reaction called reactive airways dysfunction syndrome (RADS), a type of asthma caused by some irritating or corrosive substances.
  - Swallowing HCl causes severe corrosive injury to the lips, mouth, throat, esophagus, and stomach.

  Sources: Agency for Toxic Substances and Disease Registry (2007). Managing Hazardous Materials Incidents. Volume III, Medical Management Guidelines for Acute Chemical Exposures; U.S. Department of Health and Human Services, Public Health Service.

Environmental Impact

Harmful Environmental Impact of Chemicals in Household Products

- **Phosphates are extremely damaging to aquatic life**. Phosphates cause rivers and lakes to become clogged with masses of algae and weeds, robbing less aggressive plants and aquatic animal life of oxygen, ultimately resulting in lifeless streams and rivers. Many automatic dishwashing detergents contain phosphates. Source: Revenga, C. & Mock, G. (2000). Dirty Water: Pollution Problems Persist. World Resources Institute.

Hazardous Waste Statistics

- **Americans generate 1.6 million tons (3.2 billion pounds) of household hazardous waste per year**. Source: U.S. EPA.
- **The average U.S. household generates more than 20 pounds of household hazardous waste per year, and the average home can accumulate as much as 100 pounds of household hazardous waste in the basement, garage, and in storage closets**. Source: U.S. EPA.
- **176,000 tons of household waste from cleaning products generated annually**. Cleaning products make up about 11.5% of the 1.6 million tons of household waste annually. Source: U.S. EPA.

- **The following household cleaning products are designated as household hazardous waste by the EPA, and "improper disposal of these wastes can pollute the environment and pose a threat to human health."** Source: U.S. EPA.
    - Oven cleaners
    - Drain cleaners
    - Wood and metal cleaners and polishes
    - Toilet cleaners
    - Tub, tile, shower cleaners
    - Bleach (laundry)
- **The U.S. EPA provides tips on how you can safely dispose of household hazardous waste:**
    - **Permanent collection or exchange.** See if your community has a facility that collects household hazardous waste year-round. Some of these facilities have exchange areas for unused or leftover paints, solvents, pesticides, cleaning and automotive products, and other materials. By taking advantage of these facilities, materials can be used by someone else, rather than being thrown away.
    - **Special collection days.** If your community doesn't have a year-round collection system for household hazardous waste, see if there are any designated days in your area for collecting solid waste at a central location to ensure safe management and disposal.
    - **Local business collection sites.** You might be able to drop off certain products at local businesses for recycling or proper disposal. Some local garages, for example, may accept used motor oil for recycling.

Poisoning Statistics (based on United States' data)

- **More than 90% of poison exposures occur in the home.** Source: National Center for Injury Prevention and Control.
- **218,316 reported poison exposures in 2005 were from household cleaning products.** Source: Annual Report of the American Association of Poison Control Centers' National Poisoning and Exposure Database (2005).
- **121,498 children under the age of 6 were poisoned by household cleaners last year.** More than one out of every 6 poison exposures in 2005 from non-pharmaceutical substances was attributed to household cleaning substances; with 56% attributed to children under the age of 6. Source: Annual Report of the American Association of Poison Control Centers' National Poisoning and Exposure Database (2005).
- **Bleach is the number one household chemical involved in poisoning**. Hypochlorite (bleach) was the source of 54,433 poisonings in 2005; 25% of the total exposures from household cleaning substances and the cause of 8 deaths. Source: Annual Report of the American Association of Poison Control Centers' National Poisoning and Exposure Database (2005).
- **Animal poisoning exposure cases totaled 131,336 in 2005 with dogs accounting for 89% of the cases**. Source: Annual Report of the American Association of Poison Control Centers' National Poisoning and Exposure Database (2005).

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The Use of Household Cleaning Sprays and Adult Asthma

An International Longitudinal Study

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***Rationale*: Cleaning work and professional use of certain cleaning products have been associated with asthma, but respiratory effects of nonprofessional home cleaning have rarely been studied.**

***Objectives*: To investigate the risk of new-onset asthma in relation to the use of common household cleaners.**

***Methods*: Within the follow-up of the European Community Respiratory Health Survey in 10 countries, we identified 3,503 persons doing the cleaning in their homes and who were free of asthma at baseline. Frequency of use of 15 types of cleaning products was obtained in a face-to-face interview at follow-up. We studied the incidence of asthma defined as physician diagnosis and as symptoms or medication usage at follow-up. Associations between asthma and the use of cleaning products were evaluated using multivariable Cox proportional hazards or log-binomial regression analysis.**

***Measurements and Main Results*: The use of cleaning sprays at least weekly (42% of participants) was associated with the incidence of asthma symptoms or medication (relative risk [RR], 1.49; 95% confidence interval [CI], 1.12−1.99) and wheeze (RR, 1.39; 95% CI, 1.06−1.80). The incidence of physician-diagnosed asthma was higher among those using sprays at least 4 days per week (RR, 2.11; 95% CI, 1.15−3.89). These associations were consistent for subgroups and not modified by atopy. Dose–response relationships ($P < 0.05$) were apparent for the frequency of use and the number of different sprays. Risks were predominantly found for the commonly used glass-cleaning, furniture, and air-refreshing sprays. Cleaning products not applied in spray form were not associated with asthma.**

***Conclusions*: Frequent use of common household cleaning sprays may be an important risk factor for adult asthma.**

Keywords: airway irritants; epidemiology; incidence; ECRHS

AT A GLANCE COMMENTARY

Scientific Knowledge on the Subject

Several studies have provided evidence for adverse respiratory health effects related to professional cleaning exposures. However, potential risks of nonprofessional uses in private homes have not been evaluated.

What This Study Adds to the Field

Common, nonprofessional use of household cleaning products in spray form is associated with new-onset asthma in adults.

There is growing evidence that cleaning workers are at increased risk for asthma (1–3), in some areas being particularly apparent for those employed in domestic cleaning (4). Epidemiologic studies have identified specific professional cleaning products associated with asthma, including bleach (5) and sprays (6). Many products used in professional cleaning are also widely applied in private households. Analysis of data from the first phase of European Community Respiratory Health Survey (ECRHS I) showed that homemakers had a small but statistically significant excess risk of asthma, and it was hypothesized that this may be related to the use of cleaning products at home (1). Several studies have reported chronic respiratory disorders after accidental inhalation related to (the mixing of) household cleaners (7–10), but we are not aware of studies that have evaluated respiratory effects of common use of domestic cleaning products. The aim of this study was to investigate the risk of new-onset asthma in relation to the use of common household cleaners within the follow-up of the ECRHS. Some of the results of these studies have been previously reported in the form of an abstract (11).

METHODS

The methodology of the ECRHS II has been described elsewhere (12). Briefly, 29 study centers did a follow-up investigation on asthma and allergy and their known or suspected risk factors in a random population sample of men and women, who were 20 to 44 years of age at the baseline survey (i.e., ECRHS I). Twenty-two centers from 10 European countries agreed to take part in the assessment of selected occupational and

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domestic exposures at follow-up using modular questionnaires. All local institutional committees on ethical practice approved the study protocol, and participants provided written, informed consent.

At the face-to-face interview of ECRHS II, 4,267 (59% of all) participants indicated doing or having done the cleaning and/or washing in their homes during the follow-up period. To study new-onset asthma, we excluded 764 individuals with asthma at baseline according to a definition with a high sensitivity (13) (those who had reported a history of asthma and/or having had nocturnal attacks of shortness of breath in the last 12 mo, and/or wheeze when not having a cold in the last 12 mo in ECRHS I).

Asthma at follow-up was evaluated in several ways. Current asthma was defined as having had an attack of asthma in the last 12 months and/or having had nocturnal attacks of shortness of breath in the last 12 months and/or using current medication for asthma (12). Current wheeze was defined as wheezing or whistling in the chest at any time in the last 12 months when not having a cold. Participants who reported that they had ever had asthma were in addition asked (*1*) whether asthma was confirmed by a doctor and (*2*) how old they were when they had their first attack of asthma. Physician-diagnosed asthma was defined as reported asthma confirmed by a doctor with reported first asthma attack between ECRHS I and II.

In a face-to-face interview, participants were asked about the use of products for domestic cleaning and washing during the follow-up period (www.ecrhs.org). A short questionnaire was developed based on a previous study in Spanish cleaners (14), adapted for cleaning activities in the participant's own home, and pilot-tested in one center (15). The frequency of use of 15 different products was recorded as never, less than 1 day per week, 1 to 3 days per week, or 4 to 7 days per week.

Procedures and equipment for clinical testing were identical at both surveys. FEV_1 was recorded by means of spirometry using a standardized method (12). Methacholine challenge was performed with a dosimeter (Mefar, Brescia, Italy). Bronchial hyperresponsiveness (BHR) was defined as a 20% fall in FEV_1 associated with a methacholine dose of 1 mg or less. Atopy was defined as a specific serum IgE level of greater than 0.35 kU/L to house dust mite, cat, timothy grass, or *Cladosporium herbarum*.

Statistical analyses were done using Stata version 8 (Stata Corporation, College Station, TX). Associations between the frequency of all individual cleaning exposures from the questionnaire and incidence rates of current asthma and wheeze were evaluated using binomial regression analyses with a log link. Associations with the incidence of physician-diagnosed asthma were determined by using Cox proportional hazards regression, with the onset of disease defined as the date of reported first attack of asthma. The exposure reference category in all analyses consisted of participants who used the cleaning product under study either never or less than once a week. All regression models were adjusted for sex, age, smoking, employment in a cleaning job during follow-up, and study center. Relative risks (RRs) and hazard ratios (HRs) for selected variables were estimated separately for each country. Potential heterogeneity between countries in the association between household exposure and asthma was examined by using standardized methods for random-effects meta-analysis (16).

RESULTS

The length of follow-up was on average 9 years (Table 1), with a twofold variation across individuals that was largely explained by study center. Two-thirds of the study population doing the cleaning and/or washing at home were women, ranging from 57 to 87% across countries. Only a small proportion (9%) were full-time homemakers at follow-up. About 6% had current asthma symptoms at the end of follow-up, whereas the incidence rate of physician-diagnosed asthma was 2.3 per 1,000 person-years. Depending on the definition, between 28 and 35% of the participants with asthma had BHR.

Frequency of use varied largely among the different cleaning products (Table 2). The frequencies of specific products were not strongly correlated. The correlation matrix showed that 95% of the Spearman's correlation coefficients were below 0.3 (results not presented). The highest correlation coefficients (0.41) were found between liquid multiuse cleaning products and perfumed or scented products, and between polishes and furniture sprays. Although for current asthma and wheeze most relative risk estimates were above unity, the majority of products were not significantly associated with asthma incidence. Consistently positive associations for most asthma definitions were observed for cleaning sprays in general (RR, 1.3–1.5), and glass-cleaning, furniture, and air-refreshing sprays in particular (Table 2). For all products, there were no apparent differences in asthma incidence between the exposure categories "never" and "less than 1 day per week" (data not shown).

The association between use of any product in spray form and the incidence of asthma was studied in more detail. First, the risk of using sprays at least weekly was evaluated after stratification for sex, smoking status, and atopy (Table 3). The observed associations were similar for all groups (P for multiplicative interaction > 0.15). Only the risk of physician-diagnosed asthma in men was below 1, but confidence intervals were wide due to small numbers of exposed cases.

TABLE 1. DEMOGRAPHIC AND RESPIRATORY HEALTH CHARACTERISTICS OF ECRHS II PARTICIPANTS DOING THE CLEANING AND/OR WASHING IN THEIR HOMES AND WHO HAD NO ASTHMA AT BASELINE (n = 3,503)

	ECRHS I (Baseline)	ECRHS II (Follow-up)
Length of follow-up, yr, mean (range)	8.9 (5.8–11.7)	
Age, yr, mean (range)	33.7 (20–48)	42.6 (28–57)
Women, n (%)	2,407 (68.7)	
Current smokers, n (%)	1,036 (29.6)	951 (27.1)
Ex-smokers, n (%)	773 (22.1)	909 (26.0)
Full-time housewife or househusband, n (%)	N/A	305 (8.7)
Employment in cleaning job at any time, n (%)	240 (6.9)	
Current asthma symptoms or medication*, n (%)	0	199 (5.7)
Current wheeze without a cold†, n (%)	0	226 (6.5)
Physician-diagnosed asthma‡, n (%)	0	71 (2.1)
Bronchial hyperresponsiveness§, n (%)	231 (8.8)	247 (10.5)
Atopy‖, n (%)	710 (24.3)	716 (24.0)

Definition of abbreviation: ECRHS = European Community Respiratory Health Survey; N/A = not available.

* Attack of asthma and/or nocturnal attack of shortness of breath in the last 12 months and/or current asthma medication (n = 3,483).

† Wheezing or whistling in the chest when not having a cold in the last 12 months (n = 3,480).

‡ Diagnosis of asthma with recorded year of onset (n = 3,446).

§ Methacholine dose of 1 mg or less causing a fall of 20% in FEV_1; n = 2,628 and 2,358 for ECRHS I and II, respectively.

‖ Specific IgE to at least one out of four common aeroallergens; n = 2,924 and 2,978 for ECRHS I and II, respectively.

TABLE 2. ASSOCIATIONS BETWEEN THE USE OF CLEANING PRODUCTS AT LEAST WEEKLY AND THE INCIDENCE OF ASTHMA (n = 3,503)

Cleaning Product	Use ⩾ 1 d/wk Among All Participants (%)	Current Asthma* RR (95% CI)	Current Wheeze† RR (95% CI)	Physician-diagnosed Asthma‡ HR (95% CI)
Washing powders	78.6	1.10 (0.75–1.63)	1.28 (0.91–1.81)	0.82 (0.43–1.54)
Liquid multiuse cleaning products	83.1	0.94 (0.64–1.38)	0.97 (0.70–1.35)	0.98 (0.52–1.86)
Polishes, waxes	8.7	1.12 (0.71–1.76)	1.19 (0.77–1.85)	1.42 (0.68–2.97)
Bleach	28.0	1.22 (0.83–1.80)	1.30 (0.90–1.87)	1.10 (0.56–2.17)
Ammonia	7.2	1.40 (0.87–2.23)	1.31 (0.81–2.13)	0.92 (0.33–2.59)
Decalcifiers, acids	11.1	1.06 (0.70–1.61)	1.18 (0.77–1.80)	0.25 (0.06–1.04)
Solvents, stain removers	5.5	1.54 (0.94–2.53)	2.00 (1.30–3.07)	0.48 (0.12–1.97)
Furniture sprays	11.6	1.49 (0.99–2.23)	1.46 (0.98–2.19)	2.46 (1.26–4.80)
Glass-cleaning sprays	22.1	1.35 (0.98–1.85)	1.49 (1.12–2.00)	1.43 (0.84–2.44)
Sprays for carpets, rugs, curtains	1.3	1.24 (0.47–3.21)	0.80 (0.26–2.41)	0.80 (0.11–5.93)
Sprays for mopping the floor§	6.1	1.05 (0.59–1.85)	1.03 (0.59–1.79)	0.93 (0.30–2.85)
Oven sprays	2.0	0.87 (0.33–2.28)	1.24 (0.57–2.69)	0.63 (0.09–4.64)
Ironing sprays	3.0	1.66 (0.92–3.00)	1.05 (0.48–2.30)	1.51 (0.46–4.96)
Air-refreshing sprays	16.2	1.71 (1.22–2.39)	1.36 (0.98–1.88)	1.46 (0.78–2.70)
Any spray	42.1	1.49 (1.12–1.99)	1.39 (1.06–1.80)	1.28 (0.78–2.09)
Any perfumed or scented product	67.8	1.09 (0.78–1.50)	1.11 (0.83–1.49)	1.29 (0.74–2.26)

Definition of abbreviations: CI = confidence interval; HR = hazard ratio; RR = relative risk.

RRs*† or HRs‡ with 95% CIs from log-binomial*† or Cox proportional hazards‡ regression models, adjusted for sex, age, smoking status, cleaning job, and study center. The reference category consisted of participants that used the cleaning product under study never or less than once a week. Each association was derived from a separate regression model.

* Attack of asthma and/or nocturnal attack of shortness of breath in the last 12 months and/or current asthma medication (n = 3,483).

† Wheezing or whistling in the chest when not having a cold in the last 12 months (n = 3,480).

‡ Diagnosis of asthma with recorded year of onset (n = 3,446).

§ Information was not obtained in three study centers (Germany and Switzerland).

Second, the use of sprays was classified quantitatively according to the frequency of use, and according to the number of different types used at least weekly. A dose–response relationship was found between the frequency of use of any spray and the incidence of current asthma (Table 4). This trend was not observed for wheeze, whereas for physician-diagnosed asthma an increased risk was exclusively seen for the use of sprays at least 4 days a week. Dose–response relationships were apparent for all three outcomes when evaluating the number of different types of sprays used at least weekly (Table 4). The Kaplan-Meier plot illustrating the survival analysis for number of sprays and incidence of physician-diagnosed asthma is shown in Figure 1.

Third, the use of sprays was evaluated separately for each country. There was a more than twofold range in total frequency of use across countries (Table 5). The distribution of the most common sprays also differed qualitatively between countries. For instance, the use of furniture sprays was common in the United Kingdom and not in Germany, whereas for glass-cleaning sprays, this was the other way round. Meta-analysis of the country-specific associations between spray use at least weekly and asthma incidence showed that the risk was elevated in most countries (Figure 2). Differences in relative risk seemed apparent, although the test for heterogeneity did not reach conventional levels of statistical significance ($P = 0.15$). Similar results were found for wheeze (P for heterogeneity, 0.18) and physician-diagnosed asthma ($P = 0.25$; data not shown).

Excluding full-time homemakers or individuals who had (had) any employment in cleaning yielded very similar results. Adjustment of the presented analyses for occupational exposures to asthmagens or for socioeconomic status (either educational level defined using age of completing full-time education or social class based on longest held occupation) did not alter the results. Point estimates for the associations between any spray use and asthma varied only slightly (<5%), and RRs for current asthma and wheeze remained statistically significant.

TABLE 3. ASSOCIATIONS BETWEEN THE USE OF HOUSEHOLD CLEANING SPRAYS AT LEAST WEEKLY AND THE INCIDENCE OF ASTHMA, STRATIFIED BY SEX, CURRENT SMOKING, AND ATOPY AT FOLLOW-UP

	No.	Spray Use (%)	Current Asthma* RR (95% CI)	Current Wheeze† RR (95% CI)	Physician-diagnosed Asthma‡ HR (95% CI)
Women	2,407	48	1.45 (1.04–2.02)	1.35 (0.97–1.88)	1.51 (0.87–2.64)
Men	1,096	30	1.76 (0.99–3.15)	1.38 (0.89–2.14)	0.61 (0.16–2.25)
Ever-smokers	1,860	43	1.35 (0.91–1.99)	1.32 (0.97–1.81)	1.29 (0.67–2.50)
Never-smokers	1,608	41	1.61 (1.05–2.47)	1.51 (0.93–2.46)	1.42 (0.68–2.97)
Atopics§	716	42	1.30 (0.80–2.13)	1.39 (0.88–2.20)	1.33 (0.56–3.12)
Nonatopics	2,262	43	1.33 (0.90–1.95)	1.36 (0.96–1.94)	1.12 (0.58–2.16)

For definition of abbreviations, *see* Table 2.

RRs*† or HRs‡ with 95% CIs from log-binomial*† or Cox proportional hazards‡ regression models, adjusted for sex, age, smoking status, cleaning job, and study center. The reference category consisted of participants that used sprays never or less than once a week.

* Attack of asthma and/or nocturnal attack of shortness of breath in the last 12 months and/or current asthma medication.

† Wheezing or whistling in the chest when not having a cold in the last 12 months.

‡ Diagnosis of asthma with recorded year of onset.

§ Specific IgE to at least one of four common aeroallergens.

TABLE 4. DOSE–RESPONSE RELATIONSHIPS BETWEEN THE USE OF HOUSEHOLD CLEANING SPRAYS AND THE INCIDENCE OF ASTHMA (n = 3,484)*

Category	Frequency, n (%)	Current Asthma† RR (*95% CI*)	Current Wheeze‡ RR (*95% CI*)	Physician-diagnosed Asthma§ HR (*95% CI*)
Use of sprays < 1 d/wk	2,016 (57.9)	1.00 (referent)	1.00 (referent)	1.00 (referent)
Use of spray(s) 1 to 3 d/wk	933 (26.8)	1.36 (0.99−1.89)	1.55 (1.17−2.06)	0.93 (0.51−1.67)
Use of spray(s) 4 to 7 d/wk	535 (15.4)	1.75 (1.21−2.54)	1.08 (0.73−1.59)	2.11 (1.15−3.89)
P for linear trend		0.002	0.204	0.041
One type of spray used ⩾ 1 d/wk	913 (26.2)	1.37 (0.99−1.90)	1.25 (0.92−1.69)	0.97 (0.53−1.77)
Two types of spray used ⩾ 1 d/wk	355 (10.2)	1.45 (0.92−2.27)	1.63 (1.10−2.41)	1.47 (0.70−3.06)
Three or more types of spray used ⩾ 1 d/wk	200 (5.7)	2.40 (1.47−3.91)	1.80 (1.11−2.94)	2.96 (1.33−6.56)
P for linear trend		0.001	0.003	0.022

For definition of abbreviations, *see* Table 2.

RRs†‡ or HRs§ with 95% CIs from log-binomial†‡ or Cox proportional hazards§ regression models, adjusted for sex, age, smoking status, cleaning job, and study center.

* Nineteen participants did not provide complete quantitative information for all types of sprays.

† Attack of asthma and/or nocturnal attack of shortness of breath in the last 12 months and/or current asthma medication.

‡ Wheezing or whistling in the chest when not having a cold in the last 12 months.

§ Diagnosis of asthma with recorded year of onset (n = 3,446 with complete data).

Finally, associations of spray use with BHR were explored. Weekly use of sprays was not associated with BHR at follow-up (RR, 1.0). The same was true for asthma symptoms plus BHR (RR, 1.0, for current asthma plus BHR, and RR, 1.2, for wheeze plus BHR); however, an association seemed apparent for asthma diagnosis plus BHR (RR, 1.6; 95% CI, 0.7–3.6).

DISCUSSION

This is the first epidemiologic study that evaluated the risk of adult asthma related to nonoccupational use of common household cleaning products. We found an association between the use of products in spray form and the incidence of asthma according to either more sensitive or more specific definitions. This association was linked predominantly to the most commonly used air fresheners, glass cleaners, and furniture cleaning sprays; was consistent for various subgroups and not dependent on atopic status; and the risk increased when frequency of use or number of different sprays increased. A relevant number of adult asthma cases may be related to the use of household cleaning sprays, indicating an important public health issue.

The use of sprays during the 1990s was very common in all countries of our study. Market trends from household cleaners' manufacturers show a general increase of aerosolized applications in Europe (17). Sprays and more conventional liquid cleaners contain similar active ingredients, including alcohols, ammonia, chlorine-releasing agents, glycols and glycol ethers, sodium hydroxide, acryl polymers, and terpenes (18). The application through spraying is likely to facilitate respiratory exposure to these components, explaining why we have observed associations with the use of sprays but not liquid cleaners. The latter will give off volatile components but relevant inhalatory exposure will depend on the dilution used, the surface to which they are applied, and the ambient temperature, among other factors. We may have missed an association of asthma with liquid cleaner use by not being able to account for these exposure-modifying factors. It is likely that the application of a spray typically leads to some degree of relevant inhalatory exposure, and this may have resulted in less exposure misclassification than for liquid cleaners. However, there are few data available to describe the exposure patterns associated with use of different cleaning products, and there are few experimental studies on emissions and exposures and they have mainly focused on volatile components *after* application of cleaning products (18–20). Thus, although correlation between the use of sprays and other cleaning products was in general low, it is not unlikely that our findings reflect a risk of broader use of home cleaning products.

Not many studies have evaluated adverse respiratory effects of cleaning products. Our findings are consistent with occupational epidemiologic studies in which an increased asthma risk was related to professional use of sprays among both domestic (5, 14) and nondomestic (6) cleaning women. The observed associations may be (partly) due to chance, to confounding by a third variable, or may reflect a true adverse effect on new-onset asthma. Although

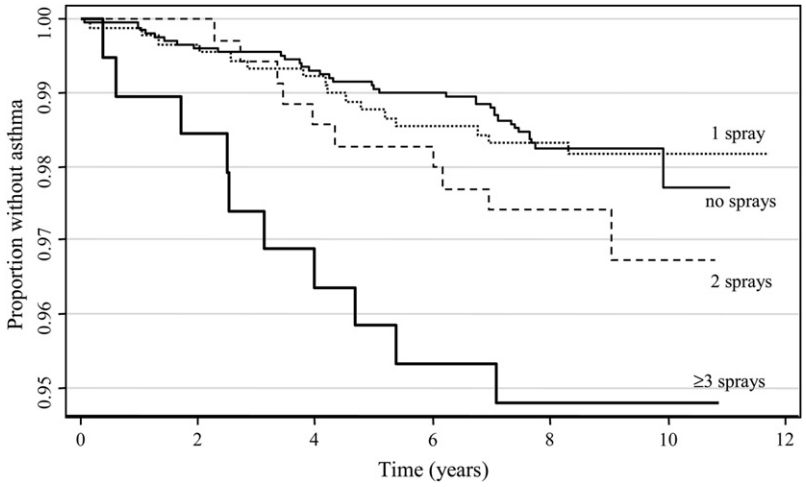

Figure 1. Kaplan-Meier survival curve for physician-diagnosed asthma according to the number of sprays used at least weekly. Onset of disease was defined as date of first attack of asthma.

TABLE 5. FREQUENCY OF USE AT LEAST WEEKLY OF THE MOST COMMON HOUSEHOLD CLEANING SPRAYS BY COUNTRY

Country	No.	Any Spray (%)	Furniture (%)	Glass Cleaning (%)	Air Fresheners (%)
Sweden	885	26.4	0.5	16.3	3.4
Italy	122	31.4	14.9	8.3	6.6
Norway	374	36.7	1.4	27.0	7.0
Switzerland	178	37.6	3.1	26.1	9.7
Germany	303	40.6	3.3	26.1	8.6
Belgium	298	41.8	8.4	21.2	20.5
Estonia	191	41.9	0.0	0.0	38.7
France	390	48.2	18.2	14.6	30.5
United Kingdom	182	55.5	33.3	10.1	31.3
Spain	580	66.0	35.6	43.9	25.6

chance can never be excluded in observational studies, this is highly unlikely here given the robust associations that were consistent for various subgroups based on host factors and country of residence, and the observed dose–response relationships. Confounding is possible if the use of sprays was associated with host or environmental risk factors of asthma. We controlled for potential host confounders, such as sex, age, and smoking status. In addition, we evaluated potential confounding effects of occupational exposures, and of socioeconomic status according to two definitions that can be regarded as reflecting a variety of housing and lifestyle factors (21). It is difficult to hypothesize other possible host or environmental factors that could have confounded the observed association between spray use and asthma.

Our study design precludes strong conclusions regarding the responsible effect mechanisms. Given the fact that asthma was related to several types of sprays with different chemical composition, and that the risk was not dependent on atopic status, we speculate that asthma could have been at least partly irritant induced. Cleaning sprays may contain sensitizers such as disinfectants, amines, pinene, or limonene (18, 19), and therefore a role of specific sensitization resulting in asthma is also plausible. From occupational settings, asthma can follow one-time intense irritant exposure, and there is increasing acceptance of the possibility that recurrent low-grade exposures to respiratory tract irritants can result in asthma as well (22). The underlying mechanisms are largely unknown, but a localized airway inflammatory response is likely involved. A similar phenomenon for repeated household exposures to irritants seems plausible, despite the fact that frequency of exposure in nonprofessional home cleaning is generally lower than in professional domestic or nondomestic cleaning.

There are a number of limitations in our study that need to be considered. First, data on both product use and health outcome were based on questionnaire information at follow-up, introducing the possibility of differential misclassification and a bias away from the null. This would be the case if participants with new-onset asthma reported more use and/or recalled better their use of cleaning sprays. However, this is unlikely to be a major explanation given the fact that during the 1990s there was not much public awareness of adverse respiratory effects of domestic cleaning activities. Data in this study were collected before 2003, the year in which an article was published on associations between domestic cleaning work and asthma (4), which received much media attention worldwide and likely initiated public awareness.

Second, scented products are widely reported by individuals with asthma to trigger symptoms (23). Although it is possible that the asthma in this study is due to the scented component of cleaning agents, it is more likely that those with asthma avoided such products and therefore could have biased associations toward the null. Analysis of the specific question covering all types of perfumed and scented cleaning products showed that the frequency of use was not associated with asthma (Table 2).

Third, results using the objective outcome BHR were not consistent with the main findings using the three *a priori* definitions of asthma. Only a minority of the participants with asthma showed BHR, and the vast majority (>80%) of participants with BHR did not have asthma. Thus, despite using a definition with relatively high specificity (a 20% fall in FEV_1 using 1 mg methacholine as a cutoff), BHR was not particularly specific for asthma. With the combination of temporal variability and a generally moderate reproducibility of methacholine challenge testing, it is difficult to judge to which extent the lack of

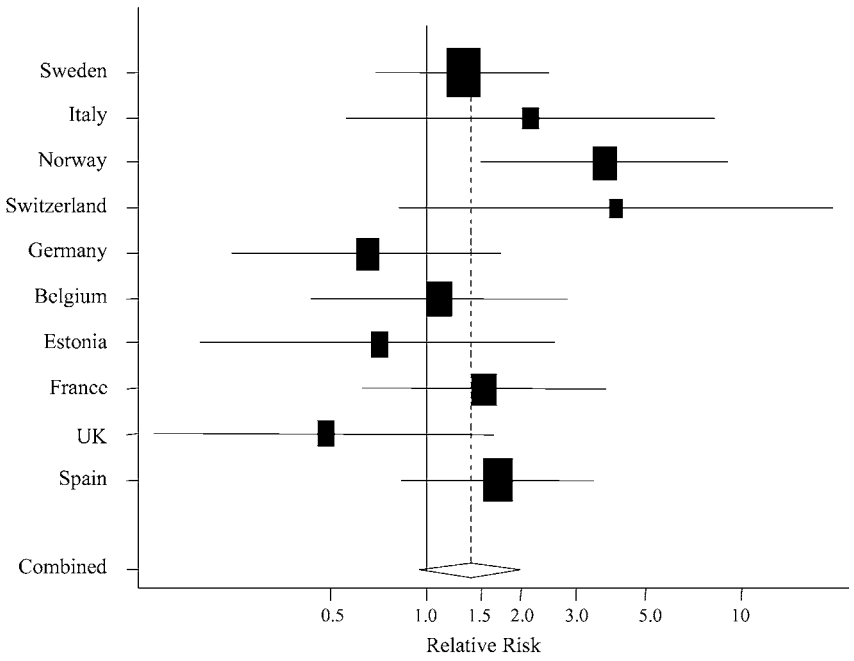

Figure 2. Association between the use of cleaning sprays at least once a week and the incidence of asthma symptoms or medication usage by country. Relative risk (RR) and 95% confidence interval (CI), adjusted within countries for study center, sex, age, smoking status, and employment in a cleaning job, are shown. The size of each *box* is proportional to the reciprocal of the variance of the estimate for the country. The *diamond* indicates 95% CI of the combined RR from the model, with country as the random effect ($P = 0.15$, test for heterogeneity). Countries are ranked from low to high frequency of spray use (*see* Table 5).

association of spray use with BHR contradicts the overall positive findings for asthma. An additional limitation was that current asthma and wheeze were defined as the occurrence in the previous year as reported at the follow-up interview. Although we used a prospective study design, it is possible that in the analyses of cumulative incidence (symptoms in the last year), the time order of exposure and effect was confused. In other words, individuals who developed asthma during follow-up could tend to clean their homes more thoroughly. Albeit with less statistical power, findings for the more specific asthma definition based on diagnosis using conventional survival analysis of incidence were consistent, and they therefore do not support this possibility.

Finally, although not statistically significant, there appeared to be a certain degree of heterogeneity in the association between spray use and asthma among countries. Unrecognized confounding could have been different for different countries, creating false-positive associations in some countries and/or hiding true positive associations in others. The qualitative differences in the use of sprays as outlined in Table 5 did not provide a clear hypothesis for the observed differences in the risk of any spray use among countries. Nevertheless, associations between the use of *specific* sprays and asthma incidence were more homogeneous across countries (results not presented). Whether chemical composition of cleaning sprays differs among countries, possibly related to the predominant brands sold on the local markets, remains unclear, and justifies more specific investigation.

Findings of our study may have significant implications for public health. Relative risks of 1.3 to 1.5 in combination with an overall proportion of 42% of weekly spray users suggest a population attributable fraction of about 15%. In other words, one in seven adult asthma cases could be attributed to common spray use. This indicates a relevant contribution of spray use to the burden of asthma in adults who do the cleaning in their homes. In addition, passive exposure might be relevant for individuals present in environments where sprays are being or have just been applied. One study even suggested that the use of cleaning and other household chemicals by the mother during pregnancy was related to wheeze in young children (24).

We conclude that frequent use of household cleaning sprays may be an important risk factor for adult asthma. This finding needs to be confirmed in future studies, with a particular emphasis on chemical composition and other exposure determinants, and on the effect mechanisms involved, including sensitization and inflammatory reactions.

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