

No More Toxic Tub

Getting Contaminants Out Of
Children's Bath & Personal Care Products



The Campaign for Safe Cosmetics

www.SafeCosmetics.org



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About the Campaign for Safe Cosmetics

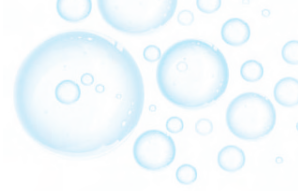
The Campaign for Safe Cosmetics is a national coalition of nonprofit women's, environmental, health, faith, consumer and worker organizations. Our collective goal is to protect the health of consumers and workers by requiring the personal care products industry to phase out the use of chemicals linked to cancer, birth defects and other serious health concerns, and replace them with safer alternatives.

The Campaign for Safe Cosmetics is working with endorsing organizations, responsible businesses and thousands of citizen activists to shift the cosmetics market toward safer products and to advocate for smarter laws that protect our health from toxic chemicals and encourage innovation of safer alternatives. Founding members of the Campaign for Safe Cosmetics include the Alliance for a Healthy Tomorrow, Breast Cancer Fund, Clean Water Fund, Commonweal, Environmental Working Group, Friends of the Earth, Massachusetts Breast Cancer Coalition, National Black Environmental Justice Network, National Environmental Trust and Women's Voices for the Earth.

Visit www.SafeCosmetics.org for more information.



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Executive Summary

Children's bath products are often marketed as safe and gentle. However, laboratory tests commissioned by the Campaign for Safe Cosmetics found these products are commonly contaminated with formaldehyde or 1,4-dioxane – and, in many cases, both. These two chemicals, linked to cancer and skin allergies, are anything but safe and gentle and are completely unregulated in children's bath products.

The Food and Drug Administration (FDA) oversees the safety of personal care products in the U.S., but lacks basic authority needed to ensure that products are actually safe. The FDA cannot require companies to test products for safety before they are sold, does not systematically review the safety of ingredients and does not set limits for common, harmful contaminants in products. The FDA also does not require contaminants to be listed on product ingredient labels.¹ As a result, consumers have no way of knowing if their products contain toxic contaminants.

This report is the first to document the widespread contamination of children's products with formaldehyde and 1,4-dioxane.

According to the Environmental Protection Agency (EPA), 1,4-dioxane is a probable carcinogen.² The federal Consumer Product Safety Commission states that “the presence of 1,4-dioxane, even as a trace contaminant, is cause for concern.”³ 1,4-dioxane is a byproduct of a chemical processing technique called ethoxylation in which cosmetic ingredients are processed with ethylene oxide. Manufacturers can easily remove the toxic byproduct, but are not required by law to do so.

Formaldehyde is a probable carcinogen, according to the EPA,⁴ though the risk of cancer from absorption through the skin is not fully understood.⁵ The chemical can also trigger adverse skin reactions in children and adults who are sensitive to the chemical.⁶⁻⁹ Contact dermatitis specialists recommend that children avoid exposure to products containing formaldehyde.¹⁰ Formaldehyde contaminates personal care products when common preservatives, such as Quaternium-15, release formaldehyde over time in the container.

None of the products tested list formaldehyde or 1,4-dioxane on the ingredient label. They are not ingredients in the products, but are toxic byproducts of chemical manufacturing and product formulation.

To better understand the extent of the problem, the Campaign for Safe Cosmetics and its partner Environmental Working Group sent samples of popular children's bath products to Analytical Sciences, an independent laboratory in Petaluma, Calif., to be tested. The products chosen for testing contained ingredients commonly associated with 1,4-dioxane or formaldehyde contamination.¹¹

61% of the children's bath products tested for this report contained both formaldehyde and 1,4-dioxane.

We tested 48 products for 1,4-dioxane. From that batch, we also tested 28 of those products for formaldehyde. Highlights of results from the independent lab tests include:

Multiple Contaminants:

- 17 out of 28 products tested (61%) contained both formaldehyde and 1,4-dioxane.
- Popular products that contained both contaminants include: Johnson's Baby Shampoo, Sesame Street Bubble Bath, Grins & Giggles Milk & Honey Baby Wash and Huggies Naturally Refreshing Cucumber & Green Tea Baby Wash.

Formaldehyde:

- 23 out of 28 products tested (82%) contained formaldehyde at levels ranging from 54 to 610 parts per million (ppm).
- Baby Magic Baby Lotion, made by Ascendia Brands, Inc., contained the highest levels of formaldehyde found in the tests.
- Two samples of Baby Magic Baby Lotion contained formaldehyde at levels that would trigger warning label requirements in Europe (above 500 ppm or .05%).¹²
- Formaldehyde is banned from personal care products in Japan and Sweden.¹³

1,4-dioxane:

- 32 out of 48 products tested (67%) contained 1,4-dioxane at levels ranging from 0.27 to 35 ppm.
- Several samples of American Girl shower products were found to contain the highest levels of 1,4-dioxane found in the tests.
- The European Union bans 1,4-dioxane from personal care products at any level,¹⁴ and has recalled products that contain the chemical.¹⁵

As this report shows, dozens of leading body care products for babies and children contain the toxic chemicals formaldehyde and 1,4-dioxane. Many of these products also contain other ingredients with known or suspected links to cancer or other serious health problems – showing that, unbeknownst to most parents, harmful chemicals in the bath may be adding up.

The evidence is compelling: The United States must reform cosmetic policies to protect people, especially babies and children, from unnecessary toxic chemical exposures.



Introduction

Children's bath products are often marketed as safe and gentle. But recent research by the Campaign for Safe Cosmetics found these products are commonly contaminated with formaldehyde or 1,4-dioxane – and, in many cases, both. These chemicals, which can be absorbed through the skin,^{16,17} are widely recognized as carcinogens in animal studies, and expert panels consider them to be known or probable human carcinogens.¹⁸⁻²⁶ Formaldehyde can also trigger skin reactions, such as contact dermatitis.²⁷⁻²⁹

Since its founding in 2002, the Campaign for Safe Cosmetics has advocated the elimination of hazardous chemicals from personal care products. These products can legally contain ingredients linked to cancer, reproductive harm, learning disabilities and other serious health problems. The Food and Drug Administration (FDA) has banned or restricted only 11³⁰ chemicals in cosmetics out of the more than 12,500 ingredients currently used.³¹ In contrast, the European Union has banned more than 1,100 chemicals from cosmetics.

The FDA oversees the safety of personal care products in the U.S., but lacks basic authority needed to ensure that products are actually safe. The FDA cannot require companies to test products for safety before they are sold, does not systematically review the safety of ingredients and does not set limits for common, harmful contaminants in products. The FDA also does not require contaminants to be listed on

product ingredient labels.³² As a result, consumers have no way of knowing if their products contain toxic contaminants.

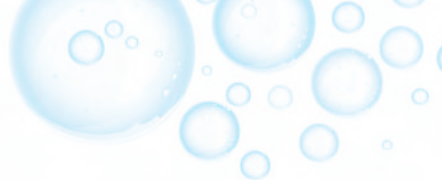
A 2007 report released by the Campaign for Safe Cosmetics and David Steinman, author of *The Safe Shopper's Bible: A Consumer's Guide to Nontoxic Household Products, Cosmetics and Food*, documented that 18 bath products tested contained the contaminant 1,4-dioxane.³³ In 2008 the Organic Consumer Association and Steinman tested 99 personal care products in the natural products sector for 1,4-dioxane and found that nearly half of them were contaminated with the chemical.³⁴ In the wake of those tests, several companies in the natural products sector agreed to reformulate products to remove chemicals associated with 1,4-dioxane contamination.³⁵

However, to date, leading companies that sell conventional baby products have not agreed to reformulate to remove harmful contaminants.

This lack of progress prompted the Campaign to conduct a new round of tests to analyze top-selling baby and children's bath products for 1,4-dioxane and formaldehyde.

The Campaign for Safe Cosmetics and its partner Environmental Working Group sent samples of children's bath products to Analytical Sciences, an independent lab in Petaluma, Calif., to be tested for contaminants. Our tests confirm the widespread presence of formaldehyde and 1,4-dioxane in leading baby and children's bath products.





Products chosen for testing contain ingredients that are likely to be contaminated, based on our review of the technical literature.³⁶ We tested 48 products for 1,4-dioxane. From that batch, we also tested 28 of those products for formaldehyde. Highlights of results from independent lab tests include:

- 17 out of 28 products tested (61%) contained both formaldehyde and 1,4-dioxane.
- 23 out of 28 products tested (82%) contained formaldehyde.
- 32 out of 48 products tested (67%) contained 1,4-dioxane.

None of the products listed 1,4-dioxane or formaldehyde on the label.

According to the Environmental Protection Agency (EPA), 1,4-dioxane is a probable carcinogen.³⁷ The federal Consumer Product Safety Commission states that “the presence of 1,4-dioxane, even as a trace contaminant, is cause for concern.”³⁸ 1,4-dioxane is a byproduct of a chemical processing technique called ethoxylation in which cosmetics ingredients are processed with ethylene oxide. Manufacturers can easily remove the toxic byproduct, but are not required by law to do so.

Formaldehyde is also a probable carcinogen, according to the EPA, and can be absorbed through the skin,³⁹ though the risk of cancer from skin contact is not fully understood.⁴⁰ Formaldehyde can also trigger skin reactions in people who are sensitive to the chemical.⁴¹⁻⁴⁴ Contact dermatitis specialists recommend that children avoid exposure to products containing formaldehyde.⁴⁵ Formaldehyde contaminates personal care products when common preservatives, such as Quaternium-15, release formaldehyde over time in the container.

What Are Contaminants?

Personal care products are made from more than 12,500 different ingredients.⁴⁶ An analysis by the Environmental Working Group of government and industry sources shows that at least 146 of these ingredients may contain harmful contaminants linked to cancer and other serious health impacts, including three of the top 20 most commonly used cosmetic ingredients.⁴⁷

Personal care products can be contaminated from either the use of impure ingredients or from by-products of chemical reactions that can happen during the manufacturing process or over time in the product container.

Children are especially vulnerable to the effects of chemicals, and preventing early-life exposures to harmful chemicals can help prevent health problems throughout their lives. Parents have a right to know which chemicals are in the products they buy – and they have a right to expect that products sold for children are as pure and safe as they can be.

Personal care products we use every day must be free from harmful ingredients and contaminants. It is crucial that Congress strengthen oversight and regulation of the cosmetics industry. The FDA needs the authority and resources to protect the most vulnerable members of our society.

Using a contaminated product once is unlikely to cause harm. But these products often contain other harmful chemicals that, when used repeatedly and in combination with numerous other products, can add up to harm.

How the Tests Were Conducted

Government and industry research has identified a wide range of chemicals used in personal care products that are likely to contain contaminants.⁴⁸ Products with these ingredients can be identified using the Skin Deep Cosmetics Database (www.cosmeticdatabase.com), an online tool published by the Environmental Working Group, which matches the ingredient lists of more than 40,000 personal care products with data from 60 definitive toxicity and regulatory databases to derive safety reports for each product.

Campaign for Safe Cosmetics staff searched Skin Deep to find commonly used baby and children's products likely to contain contaminated ingredients. Volunteers from eight states (California, Colorado, Connecticut, Massachusetts, Minnesota, Montana, New York and Washington) and the District of Columbia bought samples of those products, which were sent, unopened, to Analytical Sciences, an independent laboratory in Petaluma, Calif., for testing.

A total of 48 products were tested for the presence of 1,4-dioxane and 28 of those products were tested for the presence of formaldehyde. At least one sample of each product was tested. In some cases, multiple samples were sent for testing to see if there was variability from batch to batch of the same product.

Test Procedures

1,4-dioxane: 0.5 to 1.0 grams of product was carefully weighed to the nearest milligram into a tared glass vial. 5 to 10 milliliters of extracting solvent was added to the vial volumetrically depending on the product. The vial was sealed with a teflon lined cap, vortexed and placed into a sonication bath for a minimum of 30 minutes. The sealed extract vial was allowed to sit overnight prior to removing extract solvent for analysis by gas chromatography with mass spectroscopy detection (GC/MS). One microliter of sample extract was injected into the GC/MS operating in Selective Ion Monitoring mode. (SIMS). A Hewlett Packard 5890/5972 fitted with a 30 meter 0.25 micron RTX-5Sil-ms column was used for the analysis. A 5 point calibration was established using 1,4-Dioxane as the calibration standard.

Formaldehyde: 1 to 2 grams of product sample was weighed to the nearest milligram, and placed into a glass vial. 20 milliliters of an aqueous buffer (pH=5 acetic acid) was added volumetrically. The sample vial was sealed with a teflon lined cap, vortexed and then placed on a shaker table for 12 hours. 0.5 to 1 milliliter of the aqueous buffered extract was volumetrically transferred to a 250 bottle to which 100 milliliters of organic free dionized water had been added; 4 milliliters of acetic acid buffer was added to the bottle to maintain a pH=5 and then 6 milliliters of a 2,4-Dinitrophenyl hydrazine (DNPH) solution was added. The 250 ml bottles were placed in a shaking water bath with the temperature maintained at 40 degrees C for 1 hour to complete the derivatization. The aqueous derivatized sample was transferred to a separatory funnel and extracted with methylene chloride. The methylene chloride extract was concentrated and exchanged to a final 5 milliliter volume of acetonitrile (ACN). 10 microliters of the acetonitrile extract was introduced into an Agilent HPLC. The HPLC column was a Restek Ultra Aqueous C18 (150mm x 4.6mm). A 70%/30% ACN/water to 100% ACN eluent gradient program was used to elute the derivatized formaldehyde which was detected with an ultraviolet detector set to 365 nanometers. Standards of formaldehyde were derivatized and extracted similarly. Method blanks were used to assess background contamination from formaldehyde.

Common Ingredients Likely to Be Contaminated with 1,4-dioxane⁴⁹

Peg-100 stearate, Sodium laureth sulfate, Polyethylene, Cetareth-20

Common Ingredients Likely to Be Contaminated with Formaldehyde⁵⁰

Quaternium-15, DMDM hydantoin, Imidazolidinyl urea, Diazolidinyl urea, Sodium Hydroxymethylglycinate

Can't memorize these lists?
Nobody can.
If harmful contaminants weren't allowed in products, you wouldn't have to.

Product Test Results

Below are the results for all the products tested for formaldehyde and/or 1,4-dioxane. The company that distributes the product is shown in parentheses next to the product name. ND means that the impurity was not detected. A blank space means that the product was not tested for the relevant contaminant. Highlighted products were found to be contaminated with both formaldehyde and 1,4-dioxane. For a list of ingredients in each product that are likely to be contaminated, see Appendix A.

Product Name	1,4-dioxane (ppm)	Formaldehyde (ppm)
Lotion		
American Girl Hopes and Dreams Shimmer Body Lotion (Bath & Body Works)	ND*	310
Baby Magic “Soft Baby Scent” Baby Lotion (Ascendia Brands, Inc)	ND*	570
Baby Magic “Soft Baby Scent” Baby Lotion (Ascendia Brands, Inc)	0.92	610
Baby Magic “Soft Baby Scent” Baby Lotion (Ascendia Brands, Inc)	ND*	330
Johnson’s Bedtime Lotion Natural Calm Essences (Johnson & Johnson Consumer Companies)	ND*	
Mustela Baby Body Lotion (Laboratories Expanscience)	ND*	
Tinker Bell Body Lotion (Goldie LLC)	ND*	220
Shampoo		
CVS Baby Shampoo (CVS/Pharmacy)	0.92	350
Johnson’s Baby Shampoo (Johnson & Johnson Consumer Companies)	ND*	200
Johnson’s Baby Shampoo (Johnson & Johnson Consumer Companies)	1.1	210
L’Oreal Kids Extra Gentle 2-in-1 Fast Dry Shampoo – Burst of Cool Melon (L’Oreal USA)	0.95	260
Suave Kids 2-in-1 Shampoo – Wild Watermelon (Unilever)	0.69	ND
Liquid Shower Soap		
American Girl Hopes and Dreams Glistening Shower and Bath Wash (Bath & Body Works)	14	
American Girl Real Beauty Inside and Out Shower Gel – Apple Blossom (Bath & Body Works)	6.3	210
American Girl Real Beauty Inside and Out Shower Gel – Apple Blossom (Bath & Body Works)	5.7	220
American Girl Real Beauty Inside and Out Shower Gel – Apple Blossom (Bath & Body Works)	18	150
American Girl Real Beauty Inside and Out Shower Gel – Sunny Orange (Bath & Body Works)	35	ND

*ND means the chemical was not detected in the product; however, this does not mean the product is necessarily free of other potentially harmful ingredients. Many of these products contain numerous other chemicals with health concerns. See “No Detect Doesn’t Mean No Problem” on page 19 of this report or the Skin Deep cosmetics database for more information.⁵¹

Product Name	1,4-dioxane (ppm)	Formaldehyde (ppm)
Bath Wash		
Aveeno Baby Soothing Relief Creamy Wash (Johnson & Johnson Consumer Companies)	1.4	
Aveeno Baby Soothing Relief Creamy Wash (Johnson & Johnson Consumer Companies)	1.7	
Aveeno Baby Soothing Relief Creamy Wash (Johnson & Johnson Consumer Companies)	4.6	
CVS Kids Body Wash – Blueberry Blast (CVS/Pharmacy)	0.75	54
Equate Tearless Baby Wash (Wal-Mart Stores, Inc.)	0.63	290
Gentle Naturals Eczema Baby Wash (Del Pharmaceuticals, Inc.)	6.4	
Grins & Giggles Milk & Honey Baby Wash (Gerber Products Company)	2.8	400
Huggies Naturally Refreshing Cucumber & Green Tea Baby Wash (Kimberly-Clark)	3.2	410
Johnson's Moisture Care Baby Wash (Johnson & Johnson Consumer Companies)	3.9	
Johnson's Oatmeal Baby Wash – Vanilla (Johnson & Johnson Consumer Companies)	4.2	
Mustela Baby Shampoo (Laboratories Expanscience)	2.8	
Mustela Dermo-Cleansing Gel for Hair and Body Newborn/Baby (Laboratories Expanscience)	3.9	
Night-time Bath Baby Wash (Target Corporation)	3.6	
Bubble Bath		
Barbie Berry Sweet Bubble Bath (Water-Jel Technologies)	0.65	440
Dora the Explorer Bubble Bath (MZB Personal Care)	1.5	130
Hot Wheels Berry Blast Bubble Bath (Water-Jel Technologies)	2.8	100
Mustela Multi-Sensory Bubble Bath (Laboratories Expanscience)	1.7	ND*
Sesame Street Bubble Bath – Orange Mango Tango (The Village Company)	2.8	340
Tinker Bell Scented Bubble Bath (Goldie LLC)	11	420
Baby Wipes		
Huggies Naturally Refreshing Cucumber & Green Tea Baby Wipes (Kimberly-Clark)	ND*	
Huggies Soft Skin – Shea Butter (Kimberly-Clark Global Sales Inc)	ND*	100
Kirkland Signature Premium Unscented Baby Wipes (Costco Wholesale Corporation)	ND*	
Pampers Baby Fresh (Procter & Gamble)	ND*	
Pampers Calming – Lavender (Procter & Gamble)	ND*	

*ND means the chemical was not detected in the product; however, this does not mean the product is necessarily free of other potentially harmful ingredients. Many of these products contain numerous other chemicals with health concerns. See “No Detect Doesn’t Mean No Problem” on page 19 of this report or the Skin Deep cosmetics database for more information.⁵¹

Product Name	1,4-dioxane (ppm)	Formaldehyde (ppm)
Hair Relaxer		
Dark & Lovely Kids Beautiful Beginnings No-Mistake Nourishing No-Lye Creme Relaxer, Normal to Course Hair (SoftSheen-Carson, owned by L'Oreal USA)	ND*	
Dark & Lovely Kids Beautiful Beginnings No-Mistake Nourishing No-Lye Children's Relaxer System, Fine Hair Types (SoftSheen-Carson, owned by L'Oreal USA)	ND*	ND*
Soft & Beautiful Just for Me! No-Lye Conditioning Creme Relaxer, Children's Super (Alberto-Culver Company)	0.27	ND*
Hand Soap		
Pampers Kandoo Foaming Handsoap – Magic Melon (Procter & Gamble)	0.49	310
Sun Block		
Banana Boat Kids UVA & UVB Sunblock Lotion SPF 30 (Sun Pharmaceuticals Corp.)	ND*	
No-Ad Sun Pals SPF 45 UVA/UVB Sun Protection (Solar Cosmetics Labs Inc.)	0.46	
Toothpaste		
Colgate Kids 2-in-1 Toothpaste and Mouthwash – Strawberry (Colgate-Palmolive Company)	ND*	

*ND means the chemical was not detected in the product; however, this does not mean the product is necessarily free of other potentially harmful ingredients. Many of these products contain numerous other chemicals with health concerns. See “No Detect Doesn't Mean No Problem” on page 19 of this report or the Skin Deep cosmetics database for more information.⁵¹

Findings on 1,4-dioxane

The carcinogen 1,4-dioxane can occur as a byproduct of a process called ethoxylation, during which various chemicals are processed with ethylene oxide to make them more soluble and, in the case of personal care products, to make them gentler on people's skin.

According to a 1998 memorandum from a California State health official, 1,4-dioxane "is readily absorbed through the lungs, skin and gastrointestinal tract of mammals."⁵² The federal Consumer Product Safety Commission reports that "the presence of 1,4-dioxane, even as a trace contaminant, is cause for concern."⁵³ However, the FDA has not established or recommended a "safe" level of 1,4-dioxane in cosmetics.⁵⁴

1,4-dioxane is widely recognized as a carcinogen in animal studies, and expert panels consider it to be a known or probable human carcinogen:

- The Environmental Protection Agency classifies 1,4-dioxane as a "probable human carcinogen," based on "induction of nasal cavity and liver carcinomas in multiple strains of rats, liver carcinomas in mice, and gall bladder carcinomas in guinea pigs."⁵⁵
- The U.S. Department of Health and Human Services, National Toxicology Program, lists 1,4-dioxane as "reasonably anticipated to be a human carcinogen." The report notes: "There is sufficient evidence for the carcinogenicity of 1,4-dioxane in experimental animals."⁵⁶
- According to the International Agency for Research on Cancer, an initiative of the World Health Organization, 1,4-dioxane is "possibly carcinogenic to humans."⁵⁷
- The State of California's Environmental Protection Agency lists 1,4-dioxane on its publicly mandated annual list of chemicals known to cause cancer or reproductive toxicity (often referred to as the Proposition 65 list).⁵⁸
- According to the New Jersey Department of Health and Senior Services, 1,4-dioxane "should be handled as a carcinogen—with extreme caution."⁵⁹



67% of the products tested contained 1,4-dioxane.

California Attorney General Filed Suit Against Cosmetic Companies

After the Organic Consumers Association found widespread contamination from 1,4-dioxane in personal care products in early 2007, the California Attorney General filed a lawsuit against companies whose products had the highest levels of the chemical.⁶⁰ The lawsuit was still under way at the time of this report's publication.



1,4-dioxane Offenders

Lab results indicate that 1,4-dioxane was found in lotion, shampoo, bath wash, liquid and hand soap, bubble bath, hair relaxer and sun block. 1,4-dioxane can exist in other types of products or in other samples of products where there was none detected in Campaign tests, due to variability in batches.

- American Girl Hopes and Dreams Glistening Shower and Bath Wash
- American Girl Real Beauty Inside and Out Shower Gel – Apple Blossom (three samples)
- American Girl Real Beauty Inside and Out Shower Gel – Sunny Orange
- Aveeno Baby Soothing Relief Creamy Wash (three samples)
- Baby Magic “Soft Baby Scent” Baby Lotion
- Barbie Berry Sweet Bubble Bath
- CVS Baby Shampoo
- CVS Kids Body Wash – Blueberry Blast
- Dora the Explorer Bubble Bath
- Equate Tearless Baby Wash
- Gentle Naturals Eczema Baby Wash
- Grins & Giggles Milk & Honey Baby Wash
- Hot Wheels Berry Blast Bubble Bath
- Huggies Naturally Refreshing Cucumber & Green Tea Baby Wash
- Johnson’s Baby Shampoo
- Johnson’s Moisture Care Baby Wash
- Johnson’s Oatmeal Baby Wash - Vanilla
- L’Oreal Kids Extra Gentle 2-in-1 Fast Dry Shampoo – Burst of Cool Melon
- Mustela Baby Shampoo
- Mustela Dermo-Cleansing Gel for Hair and Body Newborn/Baby
- Mustela Multi-Sensory Bubble Bath
- Night-time Bath Baby Wash
- No-Ad Sun Pals SPF 45 UVA/UVB Sun Protection
- Pampers Kandoo Foaming Handsoap – Magic Melon
- Sesame Street Bubble Bath – Orange Mango Tango
- Soft & Beautiful Just for Me! No-Lye Conditioning Creme Relaxer, Children’s Super
- Suave Kids 2-in-1 Shampoo – Wild Watermelon
- Tinker Bell Scented Bubble Bath

1,4-dioxane Restrictions in Other Countries

- 1,4-dioxane is banned from cosmetics in the EU.⁶¹ In 2006, Germany voluntarily recalled Disney’s Finger Puppet Bath Theatre set, which included foam bath and shower and bath gel, stating “This product presents a chemical risk to children because it contains 1,4-dioxane. This product does not comply with the Cosmetic Directive.”⁶²
- Canada prohibits 1,4-dioxane in cosmetics at any level. The chemical is on the country’s “Cosmetic Ingredient Hot List,” a list of substances that are restricted or prohibited in cosmetics.⁶³

1,4-dioxane Is Not Just a Problem in the Tub

Cosmetic manufacturers can choose safer ingredients that will reduce everyone’s exposure to harmful chemicals. The ethoxylation process can expose workers to ethylene oxide, which can increase their risk for breast cancer.⁶⁴⁻⁶⁶ Disposal of personal care products contaminated with 1,4-dioxane can release the chemical into the environment. For example, the World Health Organization has flagged cosmetics as a source of 1,4-dioxane that may be contaminating the water supply.⁶⁷

1,4-dioxane Is Avoidable

Parents have a right to expect children’s bath products to be free of 1,4-dioxane. It is relatively simple for manufacturers of ethoxylated ingredients to remove the contaminant through vacuum stripping at the end of ethoxylation process. According to the FDA, vacuum stripping can be done “without an unreasonable increase in raw material cost.”⁶⁸ Our tests indicate that many manufacturers may not be taking this simple step. An even better approach would be for manufacturers of personal care products to avoid using ingredients that are likely to be contaminated.

Findings on Formaldehyde

Formaldehyde can be found in a wide range of consumer products. Personal care products can be contaminated with formaldehyde when it is released from a number of common preservatives, often building up in the contents of the container after the manufacturing process is complete. Formaldehyde is also used as an ingredient in nail polishes, nail glues, eyelash glues, hair gels and many other personal care products.⁶⁹

In the U.S. there are no restrictions on the levels of formaldehyde allowed in any body care products, no requirement to test products made with formaldehyde-releasing preservatives or possible formaldehyde contamination, and no obligation to include formaldehyde on the ingredient label when it occurs as a contaminant.

Skin Sensitivity

Formaldehyde in cosmetics is widely understood to cause allergic skin reactions and rashes in some people.⁷⁰⁻⁷² Although concentrations of formaldehyde in personal care products are generally low, for people who are sensitive, everyday products can contain enough formaldehyde to trigger a reaction.⁷³

One study found that formaldehyde can trigger skin reactions at levels as low as 250 ppm.⁷⁴ Reactions may occur at even lower levels in especially sensitized people.⁷⁵ By these estimates, at least 13 of the products tested for this report had levels of formaldehyde that could cause a reaction in sensitized people.

Formaldehyde sensitivity may not appear at the first exposure. Rather, with each additional exposure, a person may become more likely to develop a sensitivity to formaldehyde.⁷⁶ To help prevent developing formaldehyde allergies, contact dermatitis specialists recommend that children avoid exposure to products containing formaldehyde.⁷⁷

Multi-year studies indicate that there may be an increase in the number of people who experience skin sensitivity to formaldehyde-based preservatives.⁷⁸⁻⁸⁰ According to the Australian Department of Health and Aging, dermal (skin) exposure should be minimized or prevented wherever possible.⁸¹

Eliminating exposure to bath products that contain formaldehyde can prevent reactions.^{82,83}



82% of the products tested contained formaldehyde.

Cancer

Formaldehyde is considered a probable carcinogen by many expert and government bodies (see below). Most studies of the cancer potency of this chemical have focused on risks from inhaling it; cancer risks from ingesting formaldehyde or absorbing it through the skin are not as well studied.⁸⁴ When formaldehyde is present in personal care products, people can be exposed by inhaling the formaldehyde that is off-gassed from the product, by ingesting or by absorbing it through the skin. The amount of formaldehyde that off-gases from cosmetics also has not been carefully measured.⁸⁵

Animal studies indicate that formaldehyde can be absorbed through the skin when formaldehyde-containing personal care products are applied.⁸⁶ Additionally, many government agencies include cosmetics as a possible source of formaldehyde exposure, including the U.S. Agency for Toxic Substances and Disease Registry⁸⁷ and the National Toxicology Program.⁸⁸

The expert and governing bodies that classify formaldehyde as a carcinogen include:

- The Environmental Protection Agency classifies formaldehyde as a probable human carcinogen.⁸⁹
- The Eleventh Annual Report on Carcinogens, published by the U.S. Department of Health and Human Services, National Toxicology Program, says: “Formaldehyde (gas) is reasonably anticipated to be a human carcinogen based on limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.”⁹⁰
- In 2004, the International Agency for Research on Cancer (IARC), a project of the World Health Organization, announced: “Twenty-six scientists from 10 countries evaluated the available evidence



- on the carcinogenicity of formaldehyde...The working group...concluded that formaldehyde is carcinogenic to humans.”⁹¹
- California’s Environmental Protection Agency lists formaldehyde (gas) in its annual list of chemicals known to cause cancer or reproductive toxicity (often referred to as the Proposition 65 list).⁹²

Two samples of Baby Magic “Soft Baby Scent” baby lotion had high enough concentrations of formaldehyde that they would require a warning label in Europe.⁹³



Formaldehyde Restrictions in Other Countries

- The European Union limits formaldehyde concentration in cosmetics to 0.2% (2,000 ppm), and requires that personal care products containing formaldehyde or formaldehyde-releasing ingredients be labeled with the warning “contains formaldehyde” if the concentration of formaldehyde in the product exceeds 0.05% (500 ppm).⁹⁴ Two samples of Baby Magic “Soft Baby Scent” baby lotion tested for this report had high enough concentrations of formaldehyde that they would require a warning label in Europe.
- In Canada, formaldehyde can be used in cosmetics at concentrations of up to 0.2% (2,000 ppm) when used as a preservative. Formaldehyde is on Canada’s “Cosmetic Ingredient Hot List,” a list of substances which are restricted or prohibited in cosmetics.⁹⁵
- Sweden and Japan banned formaldehyde in cosmetics and toiletries.⁹⁶

Products Can Be Made Without Formaldehyde

Using preservatives in personal care products is a common practice. There is no definitive list of alternative preservatives that are safe and effective because the FDA has not set an industry standard of what is “safe.” An expert review of cosmetics preservatives published in February 2009 demonstrated that preservation of cosmetics potentially leads to increased incidences of contact allergy, and that efficient preservation can be readily obtainable with preservative concentrations well below frequently used levels.⁹⁷

Companies should use the lowest level of preservative possible that would prevent microbial growth in the open cosmetics product, yet would not trigger potentially severe contact sensitivity, allergy and other forms of skin reactivity. More importantly, they should avoid ingredients that are likely to release formaldehyde.

Formaldehyde Offenders

Lab results indicated that formaldehyde was found in lotion, shampoo, bath wash, baby wipes, liquid shower soap, bubble bath and hand soap. Considering the widespread use of formaldehyde-releasing preservatives, it is certain that formaldehyde is in other product types and brands beyond those tested in the current study.

- American Girl Hopes and Dreams Shimmer Body Lotion
- American Girl Real Beauty Inside and Out Shower Gel – Apple Blossom (three samples)
- Baby Magic “Soft Baby Scent” Baby Lotion (three samples)
- Barbie Berry Sweet Bubble Bath
- CVS Baby Shampoo
- CVS Kids Body Wash – Blueberry Blast
- Dora the Explorer Bubble Bath
- Equate Tearless Baby Wash
- Grins & Giggles Milk & Honey Baby Wash
- Hot Wheels Berry Blast Bubble Bath
- Huggies Naturally Refreshing Cucumber & Green Tea Baby Wash
- Huggies Soft Skin – Shea Butter
- Johnson’s Baby Shampoo (two samples)
- L’Oreal Kids Extra Gentle 2-in-1 Fast Dry Shampoo – Burst of Cool Melon
- Pampers Kandoo Foaming Handsoap – Magic Melon
- Sesame Street Bubble Bath – Orange Mango Tango
- Tinker Bell Body Lotion
- Tinker Bell Scented Bubble Bath

Multiple Chemicals in the Tub



The contaminants highlighted in this report – 1,4-dioxane and formaldehyde – may be only the tip of the iceberg when it comes to potentially toxic chemicals in cosmetics and personal care products. While each of these toxic chemicals may be present at relatively low concentrations, toxic exposures do not happen in isolation. Health concerns are increased by the following factors:

- **Babies are exposed to more than one product a day:** This report reveals that dozens of leading baby products contain formaldehyde and 1,4-dioxane. A child may be exposed to several of these products at once. For example, the same baby can be exposed to formaldehyde and 1,4-dioxane from baby shampoo, bubble bath and body wash – in a single bath.
- **Single products contain multiple chemicals of concern:** In addition to the unlabeled contaminants, many of the products in this report contain other chemicals of concern that are linked to harmful health effects (See “Case Studies”). There is limited understanding of the health effects of such mixtures of chemicals in our bodies,⁹⁸ although a growing number of studies demonstrate that there are additional health risks when people are exposed to multiple chemicals at the same time.^{99,100}
- **Lack of information about safety:** There are currently no legal requirements for the cosmetics industry to assess cosmetic ingredients or products for safety. More than 80% of chemicals in cosmetics have never been assessed for safety by the Cosmetics Ingredients Review, the industry’s safety panel, or the FDA.¹⁰¹

- **Many chemicals are not listed on labels:** Due to labeling loopholes, it is difficult for consumers to make informed choices about the products they buy. As this report shows, leading baby products can contain multiple contaminants that are not listed on labels. Furthermore, since many of these same products contain “fragrance,” children may be exposed to additional, unidentified chemicals. The FDA does not require manufacturers to disclose fragrance components used in consumer products. Without full disclosure of what personal care products contain, parents cannot make fully informed decisions to protect their children from unwanted, risky exposures.

Double-Offenders

The following products contained both formaldehyde and 1,4-dioxane.

- American Girl Real Beauty Inside and Out Shower Gel – Apple Blossom (three samples)
- Baby Magic “Soft Baby Scent” Baby Lotion
- Barbie Berry Sweet Bubble Bath
- CVS Baby Shampoo
- CVS Kids Body Wash – Blueberry Blast
- Dora the Explorer Bubble Bath
- Equate Tearless Baby Wash
- Grins & Giggles Milk & Honey Baby Wash
- Hot Wheels Berry Blast Bubble Bath
- Huggies Naturally Refreshing Cucumber & Green Tea Baby Wash
- Johnson’s Baby Shampoo
- L’Oreal Kids Extra Gentle 2-in-1 Fast Dry Shampoo – Burst of Cool Melon
- Pampers Kandoo Foaming Handsoap – Magic Melon
- Sesame Street Bubble Bath – Orange Mango Tango
- Tinker Bell Scented Bubble Bath

61% of the products tested contained formaldehyde & 1,4-dioxane.

Children: Not Just Little Adults¹⁰²

According to the National Academy of Sciences, several factors contribute to children's exceptional vulnerability to the harmful effects of chemicals:¹⁰³

- A child's chemical exposures are greater pound-for-pound than those of an adult.
- Children are less able than adults to detoxify and excrete chemicals (in most cases).
- Children's developing organ systems are more vulnerable to damage from chemical exposures.
- Children have more years of future life in which to develop disease triggered by early exposure.

In its recently updated cancer risk guidelines, the Environmental Protection Agency cites a review of 23 studies of early life exposures to cancer-causing chemicals and concludes that babies are 10 to 65 times more vulnerable to those chemicals than adults.¹⁰⁴ Yet the government does not impose special regulations on personal care products marketed for babies and children.

What's In That Package?

Children's bath products are often marketed with bright, cartoonish packaging. But this packaging may have its own potential dangers. Some of the products highlighted in this report, such as Sesame Street Orange Mango Tango Bubble Bath, Hot Wheels Berry Blast Bubble Bath, CVS Kids Body Wash Blueberry Blast and Dora the Explorer Bubble Bath, are sold in containers made from polyvinyl chloride, or PVC plastic (#3). PVC plastic products can leach chemicals called phthalates, which were recently banned from children's toys in the United States due to concerns about reproductive toxicity.¹⁰⁵ The products in this report were not tested for phthalates, but research indicates it is possible that these containers are leaching phthalates into the products babies and children use.^{106,107} To avoid this risk, check the recycling symbol on the bottom and do not buy products in PVC (#3) containers.



Case Studies

Pure and Gentle? Children's Products Can Be Deceptive

There may be no more iconic baby product than Johnson's Baby Shampoo. But the well-known claim that it is "as gentle to the eyes as pure water"¹⁰⁸ just doesn't measure up. Unfortunately, there are no legal standards that require products with such marketing claims to contain the safest ingredients available.

According to the packaging, the product is "made from a very special combination of ingredients designed not to irritate delicate skin or eyes" and is "soap free, hypo-allergenic and dermatologist tested." It is also "the number one choice of hospitals."

However, our test results for Johnson's Baby Shampoo found levels of formaldehyde (200 and 210 ppm) that may be enough to trigger skin reactions in especially sensitive people.¹⁰⁹ The formaldehyde in Johnson's Baby Shampoo is likely a byproduct from the preservative Quaternium-15, which is used in many bath products, yet is known to sensitize skin.^{110,111}

Some research indicates that it may be one of the leading sensitizing preservatives.¹¹² All the products tested for this report that contain Quaternium-15 had at least 200 ppm of formaldehyde.

Quaternium-15 is not the only chemical of concern in this product. This shampoo contains D&C Orange 4, a color additive "not approved by FDA for cosmetics used around eyes."¹¹³

It also contains fragrance. Like contaminants, the ingredients in fragrance are not required to be listed on personal care product labels. Fragrance can contain hundreds of chemicals that studies show may be linked to a variety of health problems, including allergies and skin reactions.¹¹⁴

Advertising claims appeal to parent's desire to be gentle and loving to their children, but with so many ingredients of concern, parents need to look twice before they buy.¹¹⁵

Why "No Detect" Doesn't Mean No Problem

Some products tested in this report did not contain formaldehyde or 1,4-dioxane. However, that does not mean the products are safe. There is no guarantee that other samples of the same product are not contaminated. Also, there are no legal requirements for children's products to be made with the safest ingredients possible. As a result, it is common to find chemicals of concern in brands marketed to children. Here is an example of a product that did not contain formaldehyde or 1,4-dioxane, yet contains other harmful ingredients. For example:

Dark & Lovely Kids Beautiful Beginnings No-Mistake Nourishing No-Lye Creme Relaxer for Fine Hair (by SoftSheen-Carson, owned by L'Oreal USA)

- Contains at least 55 different ingredients.¹¹⁶
- 98% of those ingredients have no or inadequate safety data.¹¹⁷
- Contains ingredients that are associated with health conditions, including:
 - **Methylparaben:** On the European Union's Banned and Restricted List and recognized as having links to cancer, neurotoxicity and skin irritation.¹¹⁸
 - **Fragrance:** Ingredients not required to be listed on product, but can contain harmful chemicals.¹¹⁹
 - **Triethanolamine:** Strong evidence of skin, immune and respiratory toxicity.¹²⁰

Beyond the Tub

One-time uses of contaminated bath products highlighted in this report may not cause harm. But these products are used repeatedly and in combination with other products that can also contain hazardous chemicals. We are all regularly exposed to toxic chemicals from our air, water, food and household products.

People can also be exposed to the same chemical from multiple sources. For example, formaldehyde is found in cosmetics as well as glues for building materials (such as kitchen cabinets or furniture), new clothes and other sources. What children are exposed to in the bathtub contributes to their overall exposure.

The health consequences of exposures to toxic chemicals in personal care products is an area of active research, but certain conclusions are already clear: toxic chemicals can increase the burden of chronic disease and disabilities that individual families and our entire society bears.

Chronic diseases and disabilities have reached epidemic proportions in the United States, affecting more than 100 million men, women and children, which is more than one-third of our population. Asthma, autism, birth defects, cancers, developmental disabilities, diabetes, endometriosis, infertility, Parkinson's disease and other diseases and disabilities are causing increased suffering and concern.¹²¹ Health problems can be caused by a complex web of factors, including exposure to harmful chemicals,¹²² genetics and other factors.¹²³



When the FDA or other regulatory agencies consider the risk of using everyday products, they almost never look at how exposures to the same chemical from multiple sources add up, let alone multiple chemicals from multiple sources. There is a growing movement to change this,¹²⁴ but currently the best way to be sure that babies are not exposed to harmful levels of toxic chemicals is to avoid those chemicals in consumer products whenever possible.

When the FDA or other regulatory agencies consider the risk of using everyday products, they almost never look at how exposures to the same chemical from multiple sources add up, let alone multiple chemicals from multiple sources.

The Need for Reform

The widespread presence of contaminants in children's bath products further illustrates the need to strengthen federal oversight and regulation of the cosmetic industry.

1. **Products we put on our bodies, and especially products marketed for babies and children, should not contain chemicals that pose potential health risks.** Yet, in the United States, it is perfectly legal for personal care products to contain carcinogens and other toxic chemicals that are linked to harmful health effects. The United States lags behind many other parts of the world in safety standards for personal care products. The European Union has banned more than 1,100 chemicals from cosmetics because they are known or highly suspected of causing cancer, genetic mutation or reproductive harm. In contrast, the United States bans or restricts only 11 chemicals from cosmetics.¹²⁵ According to the FDA:¹²⁶

The regulatory requirements governing the sale of cosmetics are not as stringent as those that apply to other FDA-regulated products. Under the Federal Food, Drug, and Cosmetic (FD&C) Act, cosmetics and their ingredients are not required to undergo approval before they are sold to the public. Generally, FDA regulates these products after they have been released to the marketplace. This means that manufacturers may use any ingredient or raw material, except for color additives and a few prohibited substances, to market a product without a government review or approval.

2. **Consumers have a right to know what is in the products they buy, yet loopholes in labeling laws exempt companies from disclosing all the ingredients in personal care products.** Companies are not required to list contaminants in the ingredients, and none of the manufacturers of the products tested for this report voluntarily listed 1,4-dioxane or formaldehyde. Companies are also not required to list the ingredients in "fragrance," which can include hundreds of additional chemicals in a single product. It is almost impossible for the average shopper to know whether a product contains hazardous chemicals without doing their own extensive research or sending products to a lab for analysis.
3. **Special protections are needed for the most vulnerable: babies and children.** Yet there are currently no requirements for cosmetics companies to conduct safety assessments of the chemicals they use, or to understand the unique risks to developing children. The fact that so many of the baby products we tested contained known carcinogens demonstrates the need for mandatory safety assessment of cosmetics ingredients before they end up in consumer products. Babies and children are more vulnerable to chemical exposure than adults. The next generation deserves the healthiest possible foundation from which to start their lives.

The Market Is Moving

Some companies are making safer products today and striving for even greater improvements. More than 1,000 companies¹²⁷ have signed the Compact for Safe Cosmetics,¹²⁸ a pledge to replace hazardous chemicals with safe alternatives and to publicly report on their progress.

We Need Safer Products & Smarter Laws

In the absence of meaningful federal regulation, some states set their own standards for product safety. In 2005, California passed the Safe Cosmetics Act, which requires companies to disclose their use of toxic chemicals known to the state to cause cancer or birth defects. In 2007 Washington passed the Children's Safe Products Act, which banned phthalates (an ingredient often hidden under the label of "fragrance") from children's products, including personal care products. Other states have introduced cosmetics legislation.

State-level efforts are valuable, but comprehensive federal safe cosmetics legislation is critical to give the FDA the authority and resources to ensure that cosmetics are free of toxic chemicals. New, health-protective policies are urgently needed to protect the safety and health of the American people from unsafe chemicals in the cosmetics and personal care products they use every day.

The core principles of this approach include:

- Ingredients and products should be proven safe for children and others who are vulnerable, before the products are sold.
- Chemicals linked to cancer, mutation, and developmental or reproductive harm should be prohibited in cosmetics.
- All chemical constituents in personal care products, including ingredients and contaminants, should be listed on ingredient labels.
- Health and safety data should be shared publicly to avoid duplicative testing and research policies should encourage alternatives to animal testing.
- FDA should ensure workers and fence-line communities are provided with full right-to-know information about hazardous chemicals in cosmetic products and manufacturing practices.
- A grants program should be established to encourage the creation of innovative solutions and safe alternatives to toxic chemicals in cosmetics.
- Provisions should be made to support businesses, particularly small businesses, in meeting federal regulations for safer products.
- FDA should have the authority to require submission of data needed to substantiate the safety of ingredients and products.
- FDA Office of Cosmetics and Colors should have adequate funding to provide effective oversight of the cosmetics industry.

Give the Beauty Industry a Makeover

1. Join the Campaign for Safe Cosmetics and help advocate safer products and smarter laws to protect our health from toxic chemicals. Learn more and take action at www.SafeCosmetics.org.
2. Contact your U.S. Representative and Senators and urge them to support federal legislation that would give the FDA the authority and resources it needs to strengthen federal oversight and regulation of the cosmetics industry to ensure cosmetic safety.
3. Contact your governor, federal and state legislators and candidates running for public office and ask them to support more effective regulations of chemicals, including those in personal care products.
4. Search the Environmental Working Group's Skin Deep cosmetic database at www.cosmeticsdatabase.com for safer products and learn about harmful ingredients in personal care products.
5. Write a letter to the editor of your local paper or post a blog about this report and the lack of FDA oversight of the personal care products industry. Visit www.SafeCosmetics.org for more information (check out the FAQs about the Campaign, and our Get Involved section).
6. Spread the word! Ask your friends, family and colleagues to help demand safer personal care products. Use our e-card at www.SafeCosmetics.org/toxictub.



We can't shop our way out of the problem. It's wise to buy safer products and support companies that market them, but what we really need are smarter laws that ensure all of us have access to cosmetics and other products free from toxic chemicals.

Appendix A: Ingredients Likely to Be Contaminated

Product Name	Ingredient in product likely to be contaminated with 1,4-dioxane	Ingredient in product likely to be contaminated with formaldehyde
Lotion		
American Girl Hopes and Dreams Shimmer Body Lotion	Cetareth-20	Diazolidinyl urea
Baby Magic “Soft Baby Scent” Baby Lotion	PEG-100 stearate	Diazolidinyl urea
Johnson’s Bedtime Lotion Natural Calm Essences	Cetareth-6	
Mustela Baby Body Lotion	Cetareth-20, Laureth-23, Cetareth-12	
Tinker Bell Body Lotion	PEG-100 stearate, PEG-150 stearate	Imidazolidinyl urea
Shampoo		
CVS Baby Shampoo	PEG-80 sorbitan laurate, PEG 150 distearate	Quaternium-15
Johnson’s Baby Shampoo	PEG-80 sorbitan laurate, PEG-150 distearate	Quaternium-15
L’Oreal Kids Extra Gentle 2-in-1 Fast Dry Shampoo – Burst of Cool Melon	Sodium laureth sulfate	DMDM hydantoin
Suave Kids 2-in-1 Shampoo – Wild Watermelon	Sodium laureth sulfate, PEG-150 distearate, Laureth-23	DMDM hydantoin

Product Name	Ingredient in product likely to be contaminated with 1,4-dioxane	Ingredient in product likely to be contaminated with formaldehyde
Liquid Shower Soap		
American Girl Hopes and Dreams Glistening Shower and Bath Wash	PEG-7 esters, Laureth-4, PEG-14M, Sodium laureth sulfate	
American Girl Real Beauty Inside and Out Shower Gel – Apple Blossom	Sodium laureth sulfate, PEG-3 glyceryl cocoate, PEG-120 methyl glucose dioleate	Diazolidinyl urea
American Girl Real Beauty Inside and Out Shower Gel – Sunny Orange	Sodium laureth sulfate, PEG-120 methyl glucose dioleate, PEG-3 glyceryl cocoate	Diazolidinyl urea
Bath Wash		
Aveeno Baby Soothing Relief Creamy Wash	PEG-80 sorbitan laurate, PEG-45M	
CVS Kids Body Wash – Blueberry Blast	Sodium laureth sulfate, PEG-150 distearate	DMDM hydantoin
Equate Tearless Baby Wash	Sodium laureth sulfate, PEG-80 sorbitan laurate, PEG-150 distearate	Quaternium-15
Gentle Naturals Eczema Baby Wash	Sodium laureth sulfate, PEG-45 palm kernel glycerides, PEG-150 pentaerythrityl tetrasetearate	
Grins & Giggles Milk & Honey Baby Wash	PEG-80 sorbitan laurate, Laureth-4, PEG-150 distearate, Sodium laureth-13 carboxylate	Quaternium-15
Huggies Naturally Refreshing Cucumber & Green Tea Baby Wash	Sodium laureth sulfate, PEG-80 sorbitan laurate, PEG-150 distearate	Quaternium-15
Johnson's Moisture Care Baby Wash	PEG-80 sorbitan laurate, Laureth-4	
Johnson's Oatmeal Baby Wash – Vanilla	PEG-80 sorbitan laurate, Laureth-4	
Mustela Baby Shampoo	PEG-40 glyceryl cocoate, PEG-150 distearate	
Mustela Dermo-Cleansing Gel for Hair and Body Newborn/Baby	PEG-40 glyceryl cocoate, PEG-7 glyceryl cocoate, PEG-150 distearate, Disodium PEG-4 cocamidopropyl sulfosuccinate	
Night-time Bath Baby Wash	PEG-80 sorbitan laurate, Sodium laureth sulfate, PEG-150 distearate	

Product Name	Ingredient in product likely to be contaminated with 1,4-dioxane	Ingredient in product likely to be contaminated with formaldehyde
Baby Wipes		
Huggies Naturally Refreshing Cucumber & Green Tea Baby Wipes	Potassium laureth phosphate	
Huggies Soft Skin – Shea Butter	Potassium laureth phosphate, PEG-50 shea butter	DMDM hydantoin
Kirkland Signature Premium Unscented Baby Wipes	PEG-75 lanolin	
Pampers Baby Fresh	BIS-PEG/PPG-16/16 PEG/PPG-16/16 dimethicone, PEG-40 hydrogenated castor oil	
Pampers Calming – Lavender	BIS-PEG/PPG-16/16 PEG/PPG-16/16 dimethicone, PEG-40 hydrogenated castor oil	
Bubble Bath		
Barbie Berry Sweet Bubble Bath	sodium laureth sulfate	DMDM hydantoin
Dora the Explorer Bubble Bath	sodium laureth sulfate	DMDM hydantoin
Hot Wheels Berry Blast Bubble Bath	sodium laureth sulfate	DMDM hydantoin
Mustela Multi-Sensory Bubble Bath	Sodium laureth sulfate, Sodium laureth-8 sulfate, Magnesium laureth sulfate, Magnesium Laureth-8 sulfate, Sodium oleth sulfate, Magnesium oleth sulfate	Sodium hydroxymethylglycinate
Sesame Street Bubble Bath – Orange Mango Tango	sodium laureth sulfate	DMDM hydantoin
Tinker Bell Scented Bubble Bath	sodium laureth sulfate	DMDM hydantoin

Product Name	Ingredient in product likely to be contaminated with 1,4-dioxane	Ingredient in product likely to be contaminated with formaldehyde
Hair Relaxer		
Dark & Lovely Kids Beautiful Beginnings No-Mistake Nourishing No-Lye Creme Relaxer, Normal to Course Hair	PEG-75 lanolin, Oleth-20, Dimethicone PEG-7 cocoate, PEG-12 dimethicone	
Dark & Lovely Kids Beautiful Beginnings No-Mistake Nourishing No-Lye Creme Children's Relaxer, Fine Hair	Ceteareth-20, PPG-5-ceteth-10 phosphate, Sodium laureth sulfate, PEG-75 lanolin, PEG-14M, PEG-7M, Oleth-20	Sodium hydroxymethylglycinate
Soft & Beautiful Just for Me! No-Lye Conditioning Creme Relaxer, Children's Super	PEG-75 lanolin, Oleth-3 phosphate	Diazolidinyl urea
Hand Soap		
Pampers Kandoo Foaming Handsoap – Magic Melon	PEG-12 dimethicone	DMDM hydantoin
Sun Block		
Banana Boat Kids UVA & UVB Sunblock Lotion SPF 30	Cetyl PEG/PPG-10/1 dimethicone, PEG-8	
No-Ad Sun Pals SPF 45 UVA/UVB Sun Protection	PEG-100 stearate	
Toothpaste		
Colgate Kids 2-in-1 Toothpaste and Mouthwash – Strawberry	PEG-12	

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