



## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 1. Chemical Name: Bisphenol A (BPA)

**-Uses:** Bisphenol A is commonly found in polycarbonate plastics used in food and beverage containers, epoxy resins lining metal food and beverage cans, thermal paper receipts, dental sealants, and medical devices.

**-Health Effects:** Exposure to BPA has been linked to various health effects, including endocrine disruption, reproductive issues, developmental delays in children, and potential links to cancer (e.g., breast and prostate cancer).

**-Regulatory Status:** BPA has been banned in certain products like baby bottles and sippy cups in several countries, including the EU and Canada. Its use is restricted in other products, such as thermal paper.

**-Environmental Impact:** BPA can leach from products into the environment, contaminating soil, water, and air. It persists in the environment and can accumulate in aquatic ecosystems, potentially harming wildlife and ecosystems.

**-Alternatives:** Safer alternatives to products containing BPA include BPA-free plastics (e.g., labeled with recycling codes 1, 2, 4, or 5), glass or stainless steel containers, and paper receipts.

**-Contact Information:** Consumers can reach out to regulatory agencies such as the Environmental Protection Agency (EPA) or the Food and Drug Administration (FDA) for more information or to report concerns about BPA exposure.

**-Detoxification:** Minimize exposure to products containing BPA by choosing BPA-free alternatives and reducing consumption of canned foods and beverages. Support the body's natural detoxification processes by incorporating whole foods that aid in detoxification into your diet, such as cruciferous vegetables, leafy greens, berries, citrus fruits, garlic, onions, ginger, turmeric, and green tea.

**-Additional Information:** Emerging research continues to investigate the potential health effects of BPA exposure, and consumer advocacy efforts have led to increased awareness and regulation of BPA in consumer products.

**"Did you know? Pesticide residues can be found on many conventionally grown fruits and vegetables, even after washing."**





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy

### 2. Chemical Name: Acetone



**-Uses:** Acetone is commonly used as a solvent in nail polish removers, paint thinners, and adhesives. It is also used in the production of plastics, fibers, and pharmaceuticals.

**-Health Effects:** Exposure to acetone can cause irritation of the eyes, nose, throat, and skin. Inhalation of high levels can lead to headaches, dizziness, nausea, and even unconsciousness. Chronic exposure may cause respiratory issues and skin irritation.

**-Regulatory Status:** Acetone is regulated by occupational safety and health administration (OSHA) standards for workplace exposure. It is generally recognized as safe (GRAS) for use in food and pharmaceuticals by the Food and Drug Administration (FDA).

**-Environmental Impact:** Acetone is highly volatile and can contribute to air pollution when released into the atmosphere. It can also contaminate water and soil, posing risks to aquatic organisms and terrestrial ecosystems.

**-Alternatives:** Safer alternatives to acetone include non-acetone nail polish removers, water-based paint thinners, and adhesive removers that use natural solvents.

**-Contact Information:** Consumers can reach out to OSHA or the FDA for more information on regulations and safety guidelines regarding acetone exposure.

**-Detoxification:** Minimize exposure to acetone by using products containing safer alternatives. Support the body's natural detoxification processes by staying hydrated, consuming foods rich in antioxidants and nutrients, and maintaining a healthy lifestyle.

**-Additional Information:** Acetone is flammable and should be handled with caution. Proper ventilation and personal protective equipment should be used when working with acetone to minimize exposure.



"Did you know? The average person is exposed to over 100 synthetic chemicals every day through personal care products alone."





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 3. Acetone

-Uses: Acetone is commonly used as a solvent in nail polish removers, paint thinners, adhesives, and industrial processes.

**-Health Effects:** Exposure to acetone can cause irritation of the eyes, nose, throat, and skin. High levels of exposure may lead to headaches, dizziness, nausea, and respiratory issues.

**-Regulatory Status:** Acetone is regulated by occupational safety standards and is generally recognized as safe for use in certain consumer products by regulatory agencies.

**-Environmental Impact:** Acetone can contribute to air pollution and water contamination if not properly managed. It can also be toxic to aquatic organisms.

**-Alternatives:** Safer alternatives to acetone include non-acetone nail polish removers and water-based paint thinners.

**-Contact Information:** Consumers can contact regulatory agencies such as OSHA or the EPA for more information on acetone regulations.

**-Detoxification:** Minimize exposure by using acetone in well-ventilated areas and wearing protective equipment. Support detoxification by staying hydrated and consuming foods rich in antioxidants.

**-Additional Information:** Acetone is highly flammable and should be handled with caution.



**TOXIC**

"Fact: Phthalates, commonly found in plastics and personal care items, have been linked to hormone disruption and reproductive issues in humans."







## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 4. Ammonia

**-Uses:** Ammonia is commonly used in cleaning products, fertilizers, and industrial processes.

**-Health Effects:** Inhalation of ammonia can cause irritation of the respiratory tract and eyes. High levels of exposure may lead to coughing, wheezing, and respiratory distress.

**-Regulatory Status:** Ammonia is regulated by occupational safety standards and is subject to environmental regulations regarding its release into the air and water.

**-Environmental Impact:** Ammonia can contribute to air pollution and water contamination, leading to ecological damage and harm to aquatic life.

**-Alternatives:** Safer alternatives to ammonia in cleaning products include vinegar and hydrogen peroxide.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA for more information on ammonia regulations.

**-Detoxification:** Minimize exposure by using ammonia in well-ventilated areas and wearing protective equipment. Support detoxification by staying hydrated and consuming foods rich in antioxidants.

**-Additional Information:** Ammonia is highly reactive and should not be mixed with bleach or other cleaning products containing chlorine.



"Fun Fact: Heavy metals like lead and mercury can accumulate in the body over time, leading to neurological damage and cognitive impairment."







## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 5. Arsenic

**-Uses:** Arsenic is used in various industrial processes, including wood preservation, semiconductor manufacturing, and agricultural chemicals.

**-Health Effects:** Exposure to arsenic can cause skin lesions, cardiovascular diseases, neurological effects, and an increased risk of cancer.

**-Regulatory Status:** Arsenic is regulated by environmental and occupational safety standards due to its toxicity. Maximum allowable levels are set for drinking water and food products.

**-Environmental Impact:** Arsenic contamination can occur in soil, water, and air, leading to adverse effects on ecosystems and wildlife.

**-Alternatives:** Reduce exposure by avoiding products containing arsenic, such as certain pesticides and treated wood.

**-Contact Information:** Consumers can contact environmental agencies and health departments for information on arsenic exposure and regulations.

**-Detoxification:** Minimize exposure by using arsenic-free products and maintaining good hygiene practices. Support detoxification through a healthy diet rich in antioxidants and nutrients.

**-Additional Information:** Long-term exposure to arsenic can have serious health consequences, and remediation efforts are essential to mitigate its effects.



**"Fun Fact: The average household contains about 62 toxic chemicals lurking in cleaning products, according to the Environmental Working Group."**







## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 6. Asbestos

**-Uses:** Asbestos has been used in various industries for its heat resistance and insulation properties, including construction, automotive, and manufacturing.

**-Health Effects:** Inhalation of asbestos fibers can cause lung diseases such as asbestosis, lung cancer, and mesothelioma. Even low levels of exposure over time can lead to serious health issues.

**-Regulatory Status:** Asbestos is heavily regulated due to its known health hazards. Many countries have banned or restricted its use in certain products.

**-Environmental Impact:** Asbestos can contaminate air, soil, and water during mining, manufacturing, and disposal processes, posing risks to human health and the environment.

**-Alternatives:** Substitute asbestos-containing materials with safer alternatives, such as fiberglass, cellulose, or mineral wool insulation.

**-Contact Information:** Consumers can contact health departments and environmental agencies for information on asbestos exposure and regulations.

**-Detoxification:** Avoid exposure to asbestos by using protective equipment and following safety guidelines in environments where asbestos may be present. Regular monitoring and early detection are essential for individuals at risk.

**-Additional Information:** Asbestos-related diseases often have long latency periods, with symptoms appearing years or decades after initial exposure.



"Did you know? Exposure to BPA (Bisphenol A) has been linked to an increased risk of obesity, diabetes, and cardiovascular disease."







## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy

### 7. Benzene

**-Uses:** Benzene is used as a solvent in various industrial processes, including manufacturing of plastics, rubber, and pesticides. It's also found in gasoline and cigarette smoke.

**-Health Effects:** Benzene exposure can cause dizziness, headaches, drowsiness, and in high doses, it's linked to leukemia and other blood disorders.

**-Regulatory Status:** Benzene is regulated as a hazardous air pollutant by the Environmental Protection Agency (EPA) and as a carcinogen by the Occupational Safety and Health Administration (OSHA).

**-Environmental Impact:** Benzene emissions can contribute to air pollution and groundwater contamination, affecting ecosystems and public health.

**-Alternatives:** Safer alternatives to benzene include non-toxic solvents and bio-based alternatives in manufacturing processes.

**-Contact Information:** Consumers can contact the EPA or OSHA for information on regulations and safety guidelines regarding benzene exposure.

**-Detoxification:** Minimize exposure by avoiding products containing benzene and using protective equipment in industrial settings. Support detoxification through a healthy diet and lifestyle.

**-Additional Information:** Benzene is a known carcinogen, and long-term exposure should be avoided to prevent adverse health effects.

**"Fact: Synthetic fragrance ingredients in air fresheners and perfumes can trigger allergic reactions and exacerbate respiratory conditions like asthma."**





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy

### 8. Cadmium

**-Uses:** Cadmium is used in batteries, pigments, coatings, and plastics, as well as in industrial processes such as electroplating and soldering.

**-Health Effects:** Cadmium exposure can lead to kidney damage, lung cancer, and bone diseases. It can also affect the cardiovascular and reproductive systems.

**-Regulatory Status:** Cadmium is regulated by environmental and occupational safety standards due to its toxicity. Maximum allowable levels are set for drinking water and food products.

**-Environmental Impact:** Cadmium contamination can occur in soil, water, and air, posing risks to ecosystems and human health through food chain exposure.

**-Alternatives:** Substitute cadmium-containing products with safer alternatives, such as nickel-cadmium-free batteries and non-cadmium pigments.

**-Contact Information:** Consumers can contact environmental agencies and health departments for information on cadmium exposure and regulations.

**-Detoxification:** Minimize exposure by avoiding products containing cadmium and following safety guidelines in industrial settings. Support detoxification through a healthy diet and lifestyle.

**-Additional Information:** Cadmium is a persistent environmental pollutant, and remediation efforts are crucial to mitigate its adverse effects.



"Did you know? Flame retardant chemicals used in furniture and electronics have been detected in household dust, posing risks to children and pets."





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 9. Chlorine

**-Uses:** Chlorine is used in water treatment, bleach production, and as a disinfectant in household cleaning products, swimming pools, and industrial processes.

**-Health Effects:** Chlorine exposure can cause respiratory irritation, skin and eye irritation, and exacerbate asthma symptoms. Long-term exposure may increase the risk of respiratory diseases.

**-Regulatory Status:** Chlorine is regulated in drinking water and swimming pools to ensure safe levels of disinfection. Occupational exposure limits are also set to protect workers.

**-Environmental Impact:** Chlorine can react with organic matter to form disinfection byproducts, some of which are carcinogenic. Chlorine release into water bodies can harm aquatic ecosystems.

**-Alternatives:** Explore chlorine-free water treatment methods and use alternative disinfectants such as hydrogen peroxide or UV light.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA for information on chlorine regulations and safety guidelines.

**-Detoxification:** Minimize exposure by using chlorine products in well-ventilated areas and wearing protective equipment. Support detoxification through hydration and respiratory exercises.

**-Additional Information:** Chlorine is a widely used disinfectant but should be handled with caution due to its potential health and environmental impacts.



"Did you know? Flame retardant chemicals used in furniture and electronics have been detected in household dust, posing risks to children and pets."







## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 10. Chromium

**-Uses:** Chromium is used in stainless steel production, chrome plating, pigments, leather tanning, and wood preservation.

**-Health Effects:** Inhalation or ingestion of chromium compounds can cause respiratory issues, skin irritation, allergic reactions, and lung cancer.

**-Regulatory Status:** Hexavalent chromium compounds are regulated due to their carcinogenicity. Occupational exposure limits and environmental regulations are in place.

**-Environmental Impact:** Chromium contamination can occur in soil and water, affecting ecosystems and human health. Efforts to mitigate contamination are ongoing.

**-Alternatives:** Use alternatives to chromium in manufacturing processes where feasible, and employ best practices for waste management and pollution prevention.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or OSHA for information on chromium regulations and safety guidelines.

**-Detoxification:** Minimize exposure to chromium by using protective equipment in industrial settings and avoiding contaminated sites. Support detoxification through a diet rich in antioxidants and minerals.

**-Additional Information:** The toxicity of chromium compounds varies depending on their oxidation state, with hexavalent chromium being more hazardous than trivalent chromium.



**10. "Fun Fact: Microplastics, tiny plastic particles, have been found in tap water, seafood, and even the air we breathe, raising concerns about human health."**







## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy

### 11. Formaldehyde

**-Uses:** Formaldehyde is used in the production of resins, adhesives, construction materials, textiles, and household products such as furniture and cosmetics.

**-Health Effects:** Inhalation of formaldehyde can cause respiratory issues, eye and skin irritation, allergic reactions, and is classified as a known human carcinogen.

**-Regulatory Status:** Formaldehyde emissions from products are regulated due to health concerns. Occupational exposure limits and indoor air quality standards are in place.

**-Environmental Impact:** Formaldehyde can be released into the air and water during manufacturing and use, contributing to indoor and outdoor air pollution and water contamination.

**-Alternatives:** Use formaldehyde-free or low-emission products where possible and choose natural materials such as solid wood and cotton.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or CPSC for information on formaldehyde regulations and product safety.

**-Detoxification:** Minimize exposure to formaldehyde by ventilating indoor spaces and choosing low-emission products. Support detoxification through a healthy lifestyle and proper ventilation.

**-Additional Information:** Formaldehyde exposure is a concern in both occupational and residential settings, and efforts to reduce emissions are essential for public health.

**"Fact: Triclosan, an antimicrobial agent found in many antibacterial soaps, has been linked to antibiotic resistance and hormonal disruption."**





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy

### 12. Lead

**-Uses:** Lead is used in batteries, ammunition, construction materials, and as a pigment in paints. It can also be found in plumbing fixtures and certain consumer products.

**-Health Effects:** Lead exposure can cause neurological damage, developmental delays in children, cardiovascular effects, and reproductive issues.

**-Regulatory Status:** Lead is heavily regulated due to its toxicity. Regulations exist for lead content in paint, water, toys, and other consumer products.

**-Environmental Impact:** Lead contamination can occur in soil, water, and air, leading to adverse effects on ecosystems and wildlife.

**-Alternatives:** Substitute lead-containing products with safer alternatives, such as lead-free paints, ceramic glazes, and plumbing materials.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or CPSC for information on lead regulations and safety guidelines.

**-Detoxification:** Minimize exposure to lead by avoiding products containing lead and following safety guidelines in environments where lead may be present. Support detoxification through a diet rich in calcium, iron, and vitamin C.

**-Additional Information:** Lead poisoning is preventable but remains a significant public health concern, especially for children living in older homes with lead-based paint and plumbing.

**"Fact: Triclosan, an antimicrobial agent found in many antibacterial soaps, has been linked to antibiotic resistance and hormonal disruption."**





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 13. Methanol

**-Uses:** Methanol is used as a solvent, fuel, antifreeze, and in the production of formaldehyde, plastics, and various chemicals.

**-Health Effects:** Methanol exposure can cause neurological symptoms, visual disturbances, metabolic acidosis, and in severe cases, blindness or death.

**-Regulatory Status:** Methanol is regulated as a hazardous substance due to its toxicity. Occupational exposure limits and safety guidelines are in place.

**-Environmental Impact:** Methanol spills or releases can contaminate soil and water, posing risks to ecosystems and human health through drinking water and food chain exposure.

**-Alternatives:** Substitute methanol with less toxic solvents or fuels where feasible, and employ best practices for handling and storage.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or OSHA for information on methanol regulations and safety guidelines.

**-Detoxification:** Minimize exposure to methanol by avoiding products containing it and using protective equipment in industrial settings. Support detoxification through medical treatment and hydration.

**-Additional Information:** Methanol poisoning can occur through ingestion, inhalation, or skin absorption, and prompt medical attention is essential for treatment.



"Fun Fact: Exposure to phthalates during pregnancy has been associated with a higher risk of preterm birth and adverse birth outcomes."







## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 14. Methanol

**-Uses:** Methanol is used as a solvent, fuel, antifreeze, and in the production of formaldehyde, plastics, and various chemicals.

**-Health Effects:** Methanol exposure can cause neurological symptoms, visual disturbances, metabolic acidosis, and in severe cases, blindness or death.

**-Regulatory Status:** Methanol is regulated as a hazardous substance due to its toxicity. Occupational exposure limits and safety guidelines are in place.

**-Environmental Impact:** Methanol spills or releases can contaminate soil and water, posing risks to ecosystems and human health through drinking water and food chain exposure.

**-Alternatives:** Substitute methanol with less toxic solvents or fuels where feasible, and employ best practices for handling and storage.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or OSHA for information on methanol regulations and safety guidelines.

**-Detoxification:** Minimize exposure to methanol by avoiding products containing it and using protective equipment in industrial settings. Support detoxification through medical treatment and hydration.

**-Additional Information:** Methanol poisoning can occur through ingestion, inhalation, or skin absorption, and prompt medical attention is essential for treatment.



"Fact: Per- and polyfluoroalkyl substances (PFAS), found in non-stick cookware and stain-resistant fabrics, have been dubbed 'forever chemicals' due to their persistence in the environment."







## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy

### 15. Parabens:

**-Uses:** Detail where parabens are commonly found, such as in cosmetics, skincare products, and pharmaceuticals.

**-Health Effects:** Outline potential health risks associated with paraben exposure, including endocrine disruption and other adverse effects.

**-Regulatory Status:** Provide information on regulations or restrictions on paraben use, including bans or limitations in certain jurisdictions.

**-Environmental Impact:** Discuss the environmental persistence and potential effects of parabens on ecosystems and wildlife.

**-Alternatives:** Explore alternatives to products containing parabens, such as natural preservatives or paraben-free formulations.

**-Contact Information:** Include contact details for regulatory agencies or advocacy groups focused on paraben regulations and safety.

**-Detoxification:** Provide guidance on minimizing exposure to parabens and supporting the body's natural detoxification processes.

**Additional Information:** Include any other relevant details, such as emerging research or consumer awareness campaigns related to parabens.

"Did you know? Endocrine-disrupting chemicals like BPA and phthalates can interfere with hormonal balance and reproductive health in both men and women."





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy

### 16. Pesticides:



**-Uses:** Pesticides are used in agriculture, pest control, and public health to protect crops, control pests, and prevent the spread of diseases transmitted by insects and other vectors.

**-Health Effects:** Pesticide exposure can cause a range of health issues, including neurological damage, respiratory problems, reproductive disorders, and an increased risk of certain cancers.

**-Regulatory Status:** Pesticides are subject to extensive regulation and oversight to ensure their safety and minimize risks to human health and the environment. Regulatory agencies establish maximum residue limits and safety standards for pesticide use.

**-Environmental Impact:** Pesticides can contaminate soil, water, and air through drift, runoff, and leaching, posing risks to ecosystems, wildlife, and non-target organisms.

**-Alternatives:** Integrated pest management (IPM) strategies, organic farming practices, and biological controls offer alternatives to conventional pesticide use, reducing environmental impacts and promoting sustainable agriculture.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or USDA for information on pesticide regulations, safety guidelines, and pesticide residue testing.

**-Detoxification:** Minimize pesticide exposure by choosing organic produce, washing fruits and vegetables thoroughly, and supporting organic and sustainable farming practices. Support detoxification through a healthy diet rich in antioxidants and detoxifying foods.

**-Additional Information:** Pesticides play a critical role in food production and public health but must be used responsibly to minimize risks to human health and the environment. Sustainable agriculture practices and consumer education are essential for reducing pesticide exposure and promoting food safety.



**"Fun Fact: Children are particularly vulnerable to the effects of environmental toxins, as their bodies are still developing and they often have higher exposure levels per body weight."**





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy

### 17. Phthalates

**-Uses:** Phthalates are used as plasticizers in a wide range of products, including vinyl flooring, food packaging, cosmetics, and personal care products, to increase flexibility and durability.

**-Health Effects:** Phthalate exposure is associated with endocrine disruption, reproductive abnormalities, developmental issues, and potential adverse effects on respiratory and immune function.

**-Regulatory Status:** Some phthalates are regulated due to concerns about their toxicity and potential health risks. Restrictions on their use in certain products have been implemented in some jurisdictions.

**-Environmental Impact:** Phthalates can leach from products into the environment, posing risks to ecosystems and human health through ingestion, inhalation, and dermal exposure.

**-Alternatives:** Choose phthalate-free products and opt for alternative materials such as glass, stainless steel, or silicone for food storage and personal care items.

**-Contact Information:** Consumers can contact regulatory agencies such as the FDA or EPA for information on phthalate regulations and safety guidelines.

**-Detoxification:** Minimize exposure to phthalates by avoiding products containing them, particularly in food packaging and personal care products. Support detoxification through a healthy diet and lifestyle.

**-Additional Information:** Phthalates are ubiquitous chemicals with known health and environmental risks, emphasizing the importance of reducing exposure and adopting safer alternatives.

"Did you know? Indoor air can be up to five times more polluted than outdoor air, largely due to the presence of volatile organic compounds (VOCs) from household products."





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy

### 18. Per- and Polyfluoroalkyl Substances (PFAS)



**-Uses:** PFAS are used in a variety of industrial and consumer products, including non-stick cookware, food packaging, water-resistant textiles, firefighting foams, and stain-resistant coatings.

**-Health Effects:** PFAS exposure is associated with various health issues, including immune system disruption, liver damage, thyroid disorders, developmental effects, and an increased risk of certain cancers.

**-Regulatory Status:** Some PFAS compounds are regulated due to concerns about their toxicity and persistence in the environment. Efforts to phase out certain PFAS chemicals are underway in some jurisdictions.

**-Environmental Impact:** PFAS contamination of water, soil, and air can occur from industrial releases, landfill leachate, and firefighting foam use, posing risks to ecosystems and human health.

**-Alternatives:** Choose PFAS-free products and opt for alternative materials such as stainless steel or cast iron for cookware, and natural fibers for textiles.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or FDA for information on PFAS regulations and safety guidelines.

**-Detoxification:** Minimize exposure to PFAS by avoiding products containing them and supporting efforts to address environmental contamination. Support detoxification through a healthy diet and lifestyle.

**-Additional Information:** PFAS are persistent, bioaccumulative chemicals of emerging concern with known health risks, highlighting the importance of reducing exposure and addressing environmental contamination.



"Did you know? Indoor air can be up to five times more polluted than outdoor air, largely due to the presence of volatile organic compounds (VOCs) from household products."





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 19. Phenols:

**-Uses:** Phenols are commonly found in disinfectants, antiseptics, and some consumer products such as household cleaners and personal care items.

**-Health Effects:** Phenol exposure can cause respiratory irritation, skin sensitization, and allergic reactions. Prolonged or high-level exposure may lead to systemic toxicity and organ damage.

**-Regulatory Status:** Phenols are regulated in some jurisdictions due to their toxicity and potential health risks. Restrictions on their use in certain products have been implemented.

**-Environmental Impact:** Phenol contamination of waterways can occur from industrial discharges and improper disposal, posing risks to aquatic ecosystems and wildlife.

**-Alternatives:** Choose phenol-free products and opt for natural or less toxic alternatives for cleaning and personal care.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or OSHA for information on phenol regulations and safety guidelines.

**-Detoxification:** Minimize exposure to phenols by using protective equipment and adequate ventilation when handling products containing them. Support detoxification through hydration and a diet rich in antioxidants.

**-Additional Information:** Phenols are potent disinfectants with known health risks, and efforts to reduce exposure and adopt safer alternatives are important for protecting public health.



18. "Fact: Exposure to glyphosate, the active ingredient in many herbicides, has been linked to an increased risk of certain cancers, including non-Hodgkin lymphoma."





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 20. Perfluorooctanoic Acid (PFOA)

**-Uses:** PFOA is used in the production of non-stick coatings, water-resistant textiles, firefighting foams, and certain industrial processes.

**-Health Effects:** PFOA exposure is associated with various health issues, including developmental delays, immune system effects, liver damage, and an increased risk of certain cancers.

**-Regulatory Status:** PFOA is regulated due to its persistence and toxicity. Restrictions on its use have been implemented, and efforts to phase out its production are ongoing.

**-Environmental Impact:** PFOA contamination can occur in water, soil, and air, posing risks to ecosystems and human health through food and water consumption.

**-Alternatives:** Use PFOA-free products and technologies where possible, such as ceramic cookware and water-resistant fabrics treated with eco-friendly alternatives.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA for information on PFOA regulations and safety guidelines.

**-Detoxification:** Minimize exposure to PFOA by avoiding products containing it and following safety guidelines in environments where PFOA may be present. Support detoxification through a healthy diet and lifestyle.

**-Additional Information:** PFOA is a concerning chemical due to its persistence in the environment and potential health effects, and efforts to reduce exposure are essential for public health.



"Did you know? The production of synthetic chemicals has increased dramatically over the past century, with over 140,000 chemicals in use today."





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy

### 21. Phosphates:

**-Uses:** Phosphates are commonly used in detergents, fertilizers, food additives, and industrial processes to enhance cleaning, promote plant growth, and provide other functional properties.

**-Health Effects:** Phosphate exposure can contribute to health issues such as kidney damage, cardiovascular disease, and nutrient imbalances in the body.

**-Regulatory Status:** Phosphates are regulated in some jurisdictions due to concerns about their environmental impact and potential health risks. Restrictions on phosphate use in certain products have been implemented.

**-Environmental Impact:** Phosphate runoff from agricultural and urban sources can lead to water pollution, eutrophication of water bodies, and harmful algal blooms, affecting aquatic ecosystems and drinking water quality.

**-Alternatives:** Choose phosphate-free detergents and fertilizers, and opt for environmentally friendly cleaning products and agricultural practices.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or FDA for information on phosphate regulations and safety guidelines.

**-Detoxification:** Minimize exposure to phosphates by using phosphate-free products and supporting efforts to reduce nutrient runoff and water pollution. Support detoxification through a balanced diet and adequate hydration.

**-Additional Information:** Phosphates are ubiquitous chemicals with significant environmental and health impacts, highlighting the importance of sustainable alternatives and pollution prevention strategies.

**"Fun Fact: Overuse of antibiotics in agriculture contributes to the spread of antibiotic-resistant bacteria, posing a serious threat to public health."**





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy

### 22. Phthalates

**-Uses:** Phthalates are used as plasticizers in PVC products, such as vinyl flooring, toys, food packaging, and personal care products like lotions and cosmetics.

**-Health Effects:** Phthalate exposure is associated with endocrine disruption, reproductive issues, developmental abnormalities, and adverse effects on the liver and kidneys.

**-Regulatory Status:** Certain phthalates are regulated due to their toxicity and potential health risks. Restrictions on phthalate use in children's products and cosmetics have been implemented.

**-Environmental Impact:** Phthalates can leach into the environment from products and waste, contaminating soil and water sources and posing risks to ecosystems and wildlife.

**-Alternatives:** Choose phthalate-free products and materials whenever possible, such as glass or stainless steel containers and natural personal care products.

**-Contact Information:** Consumers can contact regulatory agencies such as the CPSC or FDA for information on phthalate regulations and safety guidelines.

**-Detoxification:** Minimize exposure to phthalates by avoiding products containing them, particularly in children's toys and personal care items. Support detoxification through hydration, a diet rich in fiber, and liver-supportive foods.

**-Additional Information:** Phthalates are a group of chemicals of concern due to their widespread use and potential health effects, particularly on vulnerable populations such as children and pregnant women.

**"Fact: Persistent organic pollutants (POPs), such as dioxins and PCBs, can bioaccumulate in the food chain and have long-lasting effects on human health and the environment."**





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 23. Polybrominated Diphenyl Ethers (PBDEs)

**-Uses:** PBDEs are flame retardants used in various products, including electronics, furniture foam, textiles, and building materials.

**-Health Effects:** PBDE exposure is associated with neurodevelopmental issues, thyroid disruption, reproductive abnormalities, and carcinogenic effects.

**-Regulatory Status:** PBDEs are regulated due to their persistence, bioaccumulation, and toxicity. Restrictions on their use have been implemented in certain jurisdictions.

**-Environmental Impact:** PBDEs can leach into the environment from products, accumulating in soil, water, and organisms, with potential adverse effects on ecosystems and human health.

**-Alternatives:** Choose products made with alternative flame retardants or materials that meet fire safety standards without the use of PBDEs.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA for information on PBDE regulations and safety guidelines.

**-Detoxification:** Minimize exposure to PBDEs by avoiding products containing them, particularly older furniture and electronics. Support detoxification through a healthy diet rich in antioxidants and nutrients that support liver function.

**-Additional Information:** PBDEs are persistent organic pollutants that can bioaccumulate in the food chain, highlighting the importance of reducing their use and exposure.



"Did you know? Exposure to high levels of lead during childhood can lead to irreversible neurological damage and cognitive deficits."





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 24. Polychlorinated Biphenyls (PCBs)

**-Uses:** PCBs were historically used in electrical equipment, hydraulic systems, and as additives in paints, sealants, and plastics.

**-Health Effects:** PCB exposure is associated with immune system suppression, developmental delays, reproductive issues, and an increased risk of certain cancers.

**-Regulatory Status:** PCBs are regulated due to their persistence, toxicity, and potential health risks. Restrictions on their production and use have been implemented globally.

**-Environmental Impact:** PCBs can persist in the environment for long periods, accumulating in soil, water, and organisms, with adverse effects on ecosystems and human health.

**-Alternatives:** Substitute PCB-containing materials with safer alternatives, such as non-PCB electrical equipment and PCB-free building materials.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA for information on PCB regulations and safety guidelines.

**-Detoxification:** Minimize exposure to PCBs by avoiding contaminated sites and following fish consumption advisories. Support detoxification through a diet rich in fiber, antioxidants, and liver-supportive foods.

**-Additional Information:** PCBs are persistent organic pollutants that can cycle through the environment and bioaccumulate in the food chain, posing risks to both wildlife and human populations.



**"Fun Fact: The cosmetic industry is largely unregulated, allowing potentially harmful ingredients to be used in personal care products without rigorous safety testing."**





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 25. Polyethylene Glycol (PEG)

**-Uses:** PEG is used in a wide range of products, including pharmaceuticals, cosmetics, personal care products, and as a food additive.

**-Health Effects:** PEG exposure can cause skin irritation, allergic reactions, and gastrointestinal issues. In rare cases, it may induce anaphylaxis or systemic toxicity.

**-Regulatory Status:** PEG is generally recognized as safe (GRAS) by regulatory agencies when used within specified limits. However, sensitivity reactions may occur in some individuals.

**-Environmental Impact:** PEG is considered biodegradable and has low environmental toxicity. However, its derivatives and breakdown products may have different environmental impacts.

**-Alternatives:** Choose products formulated with alternative ingredients if you have sensitivity to PEG or prefer to avoid it.

**-Contact Information:** Consumers can contact regulatory agencies such as the FDA or EPA for information on PEG regulations and safety guidelines.

**-Detoxification:** If experiencing adverse reactions to PEG, discontinue use of products containing it. Support detoxification through hydration and a healthy diet rich in fiber.

**-Additional Information:** PEG is a versatile ingredient used in many consumer products but may cause adverse reactions in sensitive individuals. It's essential to be aware of its presence in products and potential effects.



**"Fact: Chemicals used in flame retardants, such as polybrominated diphenyl ethers (PBDEs), have been detected in breast milk, exposing infants to potential health risks."**





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 26. Polyvinyl Chloride (PVC)

**-Uses:** PVC is used in pipes, tubing, vinyl flooring, window frames, medical devices, and various consumer products such as toys and clothing.

**-Health Effects:** PVC exposure can release toxic chemicals such as phthalates, lead, and dioxins, which are associated with respiratory issues, reproductive abnormalities, and cancer.

**-Regulatory Status:** PVC is regulated due to concerns about its toxicity and environmental impact. Restrictions on phthalates and other additives in PVC products have been implemented.

**-Environmental Impact:** PVC production and disposal can release hazardous chemicals and contribute to air and water pollution, soil contamination, and risks to ecosystems and human health.

**-Alternatives:** Choose products made from alternative materials such as wood, metal, or natural fibers to reduce exposure to PVC and associated additives.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or CPSC for information on PVC regulations and safety guidelines.

**-Detoxification:** Minimize exposure to PVC by avoiding products containing it, particularly in indoor environments. Support detoxification through a diet rich in antioxidants and foods that support liver function.

**-Additional Information:** PVC is a widely used plastic with known health and environmental concerns, emphasizing the importance of adopting alternatives and safer materials.



"Did you know? The use of synthetic pesticides has led to declines in bee populations worldwide, threatening food security and ecosystem stability."





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 27. Toluene

**-Uses:** Toluene is used as a solvent in paints, coatings, adhesives, and industrial processes such as rubber manufacturing and gasoline production.

**-Health Effects:** Toluene exposure can cause neurological symptoms, respiratory issues, skin irritation, and in high concentrations, central nervous system depression and organ damage.

**-Regulatory Status:** Toluene is regulated as a volatile organic compound (VOC) due to its contribution to air pollution and potential health risks. Occupational exposure limits are in place.

**-Environmental Impact:** Toluene emissions from industrial activities and vehicle exhaust can contribute to air pollution, posing risks to human health and the environment.

**-Alternatives:** Substitute toluene-containing products with less toxic solvents or water-based alternatives where feasible.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or OSHA for information on toluene regulations and safety guidelines.

**-Detoxification:** Minimize exposure to toluene by using protective equipment in industrial settings and ensuring adequate ventilation. Support detoxification through hydration and a diet rich in antioxidants.

**-Additional Information:** Toluene is a common solvent with known health risks, and efforts to reduce emissions and exposure are important for protecting public health.

-Certainly! Let's continue with the next set of chemicals:



**"Fun Fact: Endocrine-disrupting chemicals can mimic or interfere with hormones in the body, leading to reproductive disorders, obesity, and developmental abnormalities."**





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 28. Trichloroethylene (TCE)

**-Uses:** TCE is used as a solvent in industrial processes such as metal degreasing, as well as in consumer products such as adhesives, paints, and spot removers.

**-Health Effects:** TCE exposure is associated with neurological symptoms, liver and kidney damage, immune system effects, and an increased risk of certain cancers.

**-Regulatory Status:** TCE is regulated as a hazardous air pollutant and drinking water contaminant due to its toxicity and potential health risks. Occupational exposure limits are in place.

**-Environmental Impact:** TCE contamination of soil and groundwater can occur from industrial releases, posing risks to ecosystems and human health through drinking water and vapor intrusion.

**-Alternatives:** Substitute TCE-containing products with less toxic solvents or water-based alternatives where feasible.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or OSHA for information on TCE regulations and safety guidelines.

**-Detoxification:** Minimize exposure to TCE by using protective equipment in industrial settings and avoiding contaminated drinking water sources. Support detoxification through hydration and a diet rich in antioxidants.

**-Additional Information:** TCE is a volatile organic compound with known health risks, and efforts to reduce emissions and exposure are essential for protecting public health.



**"Fact: Exposure to air pollution, including particulate matter and nitrogen dioxide, is associated with an increased risk of respiratory diseases and cardiovascular problems."**





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 29. Triclosan

**-Uses:** Triclosan is used as an antibacterial agent in personal care products such as soaps, toothpaste, and hand sanitizers, as well as in some household cleaning products.

**-Health Effects:** Triclosan exposure is associated with endocrine disruption, antibiotic resistance, and potential adverse effects on immune function and reproductive health.

**-Regulatory Status:** Triclosan is regulated due to concerns about its toxicity and environmental impact. Restrictions on its use in certain products have been implemented in some jurisdictions.

**-Environmental Impact:** Triclosan can accumulate in waterways and aquatic organisms, leading to ecological disruptions and potential risks to human health through food chain exposure.

**-Alternatives:** Choose triclosan-free products and opt for alternative antibacterial agents such as alcohol-based hand sanitizers or natural alternatives like tea tree oil.

**-Contact Information:** Consumers can contact regulatory agencies such as the FDA or EPA for information on triclosan regulations and safety guidelines.

**-Detoxification:** Minimize exposure to triclosan by avoiding products containing it and supporting detoxification through a healthy diet and lifestyle.

**-Additional Information:** Triclosan is a controversial ingredient due to its potential health and environmental risks, and efforts to limit its use and find safer alternatives are ongoing.



"Fun Fact: Formaldehyde emissions from pressed wood products and building materials can contribute to 'sick building syndrome' and indoor air quality problems."





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy

### 30. Urea Formaldehyde

**-Uses:** Urea formaldehyde is used in the production of adhesives, binders, and finishes for wood products, textiles, and insulation materials.

**-Health Effects:** Urea formaldehyde exposure can cause respiratory irritation, allergies, and in high concentrations, may contribute to indoor air pollution and exacerbate asthma symptoms.

**-Regulatory Status:** Urea formaldehyde emissions from building materials are regulated to minimize indoor air quality impacts. Standards and certifications exist for low-emission products.

**-Environmental Impact:** Urea formaldehyde can contribute to indoor air pollution, particularly in poorly ventilated spaces, and may have limited environmental persistence once emitted.

**-Alternatives:** Choose low-emission or formaldehyde-free products for building materials and furnishings to reduce indoor air pollution risks.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or OSHA for information on urea formaldehyde regulations and safety guidelines.

**-Detoxification:** Minimize exposure to urea formaldehyde by using low-emission products and ensuring adequate ventilation in indoor spaces. Support detoxification through a healthy diet and lifestyle.

**-Additional Information:** Urea formaldehyde is a common indoor air pollutant that can contribute to respiratory issues and indoor air quality concerns, highlighting the importance of selecting low-emission materials.

**"Fact: Chemicals used in food packaging, such as bisphenols and phthalates, can migrate into food and beverages, posing health risks to consumers."**





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy

### 31. Volatile Organic Compounds (VOCs)

**-Uses:** VOCs are used in a wide range of products, including paints, solvents, cleaning agents, pesticides, and personal care products, as well as in industrial processes.

**-Health Effects:** VOC exposure is associated with respiratory irritation, headaches, dizziness, and in some cases, may contribute to long-term health issues such as asthma, allergies, and cancer.

**-Regulatory Status:** VOC emissions from products and industrial sources are regulated to protect air quality and public health. Standards and limits exist for VOC content in various products.

**-Environmental Impact:** VOC emissions contribute to air pollution, ozone formation, and indoor air quality issues, with potential adverse effects on human health, ecosystems, and the environment.

**-Alternatives:** Choose low-VOC or zero-VOC products where available, and opt for natural or eco-friendly alternatives to reduce emissions and indoor air pollution.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or state environmental agencies for information on VOC regulations and safety guidelines.

**-Detoxification:** Minimize exposure to VOCs by ventilating indoor spaces, using air purifiers, and choosing low-emission products. Support detoxification through hydration and a healthy diet rich in antioxidants.

**-Additional Information:** VOCs are ubiquitous indoor and outdoor air pollutants with known health and environmental impacts, underscoring the importance of reducing emissions and exposure.



"Did you know? Endocrine-disrupting chemicals like BPA and phthalates can interfere with hormonal balance and reproductive health in both men and women."





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 32. Xylene

**-Uses:** Xylene is used as a solvent in paints, coatings, adhesives, and industrial processes such as printing, rubber manufacturing, and leather tanning.

**-Health Effects:** Xylene exposure can cause neurological symptoms, respiratory irritation, skin irritation, and in high concentrations, central nervous system depression and organ damage.

**-Regulatory Status:** Xylene is regulated as a volatile organic compound (VOC) due to its contribution to air pollution and potential health risks. Occupational exposure limits are in place.

**-Environmental Impact:** Xylene emissions from industrial activities and vehicle exhaust can contribute to air pollution, posing risks to human health and the environment.

**-Alternatives:** Substitute xylene-containing products with less toxic solvents or water-based alternatives where feasible.

**-Contact Information:** Consumers can contact regulatory agencies such as the EPA or OSHA for information on xylene regulations and safety guidelines.

**-Detoxification:** Minimize exposure to xylene by using protective equipment in industrial settings and ensuring adequate ventilation. Support detoxification through hydration and a diet rich in antioxidants.

**-Additional Information:** Xylene is a common solvent with known health risks, and efforts to reduce emissions and exposure are important for protecting public health.



"Fun Fact: Many personal care products marketed as 'natural' or 'organic' still contain synthetic chemicals and fragrances, highlighting the importance of reading ingredient labels."





## Presents: 'The Chemical List'

Helpful Guide to Keep You in the Know and Healthy



### 33. Zinc Oxide (finally one good chemical)

**-Uses:** Zinc oxide is used in a variety of products, including sunscreens, cosmetics, ointments, paints, and ceramics, for its UV-blocking, antimicrobial, and protective properties.

**-Health Effects:** Zinc oxide is generally considered safe for topical use, although inhalation of fine particles may cause respiratory irritation. It is commonly used in skincare products as a safe sunscreen ingredient.

**-Regulatory Status:** Zinc oxide is approved as a sunscreen active ingredient by regulatory agencies such as the FDA and is generally recognized as safe (GRAS) for topical use.

**-Environmental Impact:** Zinc oxide is considered relatively environmentally benign, with low toxicity to aquatic organisms and minimal environmental persistence.

**-Alternatives:** Zinc oxide is commonly used in sunscreens as a safe and effective UV filter. Natural alternatives such as titanium dioxide may also be used in sunscreen formulations.

**-Contact Information:** Consumers can contact regulatory agencies such as the FDA or EPA for information on zinc oxide regulations and safety guidelines.

**-Detoxification:** Zinc oxide is not typically associated with systemic toxicity, but if ingested in large amounts, it may cause gastrointestinal upset. Support detoxification through hydration and a balanced diet.

**-Additional Information:** Zinc oxide is a versatile ingredient with various applications, including in sunscreens, where it provides broad-spectrum UV protection with low risk of skin irritation.



**"Fact: Chemicals used in sunscreen, such as oxybenzone and octinoxate, have been found to contribute to coral bleaching and ecosystem degradation in marine environments."**