Toxic-Free Cosmetics Act Guide

Restrictions for Cosmetic Industry & Sellers

Publication 24-04-019 | April 2024

DEPARTMENT OF ECOLOGY
State of Washington

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Introduction

Washington's Toxic-Free Cosmetics Act[1] (TFCA) prevents the sale and distribution of cosmetic products containing certain chemicals that are linked to harmful impacts.

1 https://ecology.wa.gov/tfca

If you produce, manufacture, import, distribute, or sell cosmetic products (including through e-commerce), this guide is for you. It explains which chemicals are restricted by TFCA and when restrictions begin. It will also help you assess your supply chain and determine if these chemicals are in your products.

The steps include:

Step 1

Review the timeline and restricted chemicals.

Step 2

Determine if your product contains restricted chemicals.

Step 3

Act on your findings.

Please note:

This resource isn't prescriptive; we designed it to provide options to help you identify if you'll need to substitute raw materials or ingredients.

Key terms

Cosmetic product: Both:

- Articles intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body for uses like cleansing, beautifying, promoting attractiveness, or altering the appearance.
- Articles intended for use as a component of any such article; except that such term shall not include soap.

Examples include makeup, perfume, shampoo, hair gel, body wash, deodorant, hand lotion, and shaving cream.

Impurity: A chemical with no function in the ingredient, raw material, or final product. An impurity can occur either:

- Naturally in the ingredient—such as lead in iron ore used to make inorganic pigments.
- As a residue or by-product during chemical reactions used to create certain ingredients—such as 1,4-dioxane in ethoxylated surfactants.

Incidental: A chemical that doesn't serve a function in the final product, but serves a function in either:

- An ingredient or raw material.
- The manufacture of an ingredient, raw material, or product.

Examples include preservatives or defoamers that are part of another ingredient.

INCI (International Nomenclature Cosmetic Ingredient) names: Systemic names internationally recognized to identify cosmetic ingredients.

Ingredient: A component of a raw material or formulation that serves a formulary function.

An ingredient can be a single chemical (such as citric acid) or a mixture of chemicals (such as a lavender essential oil or petroleum distillates). These are often identified by INCI.

Intentionally added chemical: A chemical added to serve a function.

We intend to conduct a rulemaking to identify formaldehyde releasers and define key terms like "intentionally added." Until we adopt the rule, we recommend you gather information on all chemicals, including ingredients and incidentals.

Sign up for our email list[2] to follow our progress and engage in the process.

Manufacturer: Any person, firm, association, partnership, corporation, governmental entity, organization, or joint venture that either:

- Produces a product or imports.
- Domestically distributes a product sold or offered for sale in or into the state.

Ortho-phthalates: Esters of ortho-phthalic acid. Learn more about them on our phthalates webpage.[3]

PFAS (per- and polyfluoroalkyl substances): One or more fluorinated organic chemicals that contains at least one fully fluorinated carbon atom. Learn more about them on our PFAS webpage.[4]

Raw material: Any ingredient used to formulate a cosmetic product. This includes mixtures.

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2 public.govdelivery.com/accounts/WAECY/subscriber/new?topic_id=WAECY_312

3 ecology.wa.gov/phthalates

4 ecology.wa.gov/PFAS

Step 1: Review the timeline and restricted chemicals

Do you manufacture, distribute, market, offer for sale or sell a cosmetic product in Washington state, including through e-commerce?

If yes, refer to the following dates for upcoming restrictions.

Restricted chemicals prohibited January 1, 2025

See Table 1 for a list of restricted chemicals and chemical classes.

Beginning January 1, 2025, you may not manufacture, knowingly sell, offer for sale, distribute for sale, or distribute for use any cosmetic product that contains any of the restricted chemicals or chemical classes when they are intentionally added.

See Table 1 for a list of restricted chemicals and chemical classes. If you're an in-state retailer in possession of cosmetic products with these restrictions on January 1, 2025, you may sell items in your existing stock to the public until January 1, 2026.

As of January 1, 2026, you may not sell or donate products that do not comply with these restrictions in Washington.

Table 1: Restricted chemicals and chemical classes and their potential uses.

Chemical or chemical class	CAS[5]	Potential uses[6]
Ortho-phthalates	Many*	Plasticizer, solvent, fixative, fragrance, fragrance enhancer, carrier, hair conditioning, film forming, denaturant, anti-caking, perfuming, skin moisturizer, skin softener, skin penetration enhancer, anti-foaming
Perfluoroalkyl and polyfluoroalkyl substances (PFAS)	Many*	Surfactant-emulsifying, hair conditioning, binding, skin conditioning, anti-aging, antifoaming, foam booster, detangling, solvent, viscosity controlling, bulking, lubricant/slip agent, propellant
Formaldehyde	50-00-0	Antimicrobial, preservative, denaturant, hair straightener
Methylene glycol	463-57-0	Nail conditioning, nail sculpting, hair straightener
Mercury and mercury compounds**	7439-97-6	Preservative, antimicrobial, skin lightening[7]
Triclosan	3380-34-5	Antimicrobial, deodorant, preservative
m-Phenylenediamine and its salts	108-45-2	Hair dye, hair dye intermediate
o-Phenylenediamine and its salts	95-54-5	Hair dye, hair dye intermediate
Lead and lead compounds**	7439-92-1	Hair dyeing

*Common chemicals used in these classes are listed in Appendix A. The list is not exhaustive.

**The U.S. Food and Drug Administration (FDA) restricts or prohibits mercury, mercury compounds, lead, and lead compounds for some of the use-cases listed in this table. In the past few years, mercury been found in some imported products marketed for these uses.

5 CAS stands for Chemical Abstracts Service.

6 Unless noted, potential uses are from ec.europa.eu/growth/tools-databases/cosing, cosmetics.specialchem.com, www.ulprospector.com/en/na/PersonalCare, and www.fda.gov/files/cosmetics/published/A-Survey-of-Phthalate-Esters-in-Consumer-Cosmetic-Products--2006.pdf.

7 https://www.fda.gov/consumers/consumer-updates/mercury-poisoning-linked-skin-products

Additional restrictions

Lead and lead compounds

Beginning January 1, 2025, lead and lead compounds (CAS 7439-92-1) are restricted at one part per million (ppm). The restriction applies even when the lead is added to the product through an impurity in an intentionally added ingredient.

If you're an in-state retailer, you may sell items in your existing stock to the public until January 1, 2026. **As of January 1, 2026**, you may not sell or donate products with lead greater than one ppm in Washington.

Formaldehyde

The Toxic-Free Cosmetics Act allows Ecology to look at chemicals that release formaldehyde, also known as formaldehyde releasers. The potential uses of these chemicals are:

- Antimicrobial
- Bulking
- Denaturant
- Film forming
- Hair conditioning
- Nail conditioning
- Nail sculpting
- Perfuming
- Plasticizing
- Preserving
- Skin conditioning
- Skin protecting
- As a solvent

We may conduct a rulemaking to adopt restrictions on formaldehyde releasers. The earliest a restriction would take effect is January 1, 2026. Subscribe to our email list[8] to follow our progress and engage in the process.

8 https://public.govdelivery.com/accounts/WAECY/subscriber/new?topic_id=WAECY_312

Step 2: Determine if your product contains restricted chemicals

There are three commonly used approaches to identify if your product contains the restricted chemicals:

- **Conduct a raw material review or audit (disclosure).**
- **Obtain supplier attestations of compliance.**
- **Conduct analytical testing.**

You can determine if your product contains restricted chemicals by using a combination of these three approaches. When possible, we recommend asking your suppliers for full disclosure[9] of the chemicals in all raw materials used in your products. This will provide you with the most information about your formulation.

Raw material review or audit (disclosure)

You can start by reviewing raw materials used in your products. It's likely more labor-intensive than the other approaches, but it helps you determine compliance and evaluate if there are opportunities to improve your formulation[10] from the chemical hazard (toxicity) perspective.

Collect a comprehensive list of ingredients and incidentals

Some raw materials may contain only one ingredient (often identified by INCI), but many raw materials contain combinations of multiple ingredients. In both cases, only registered INCIs are required to be listed on cosmetics product labels, and ingredients that are considered impurities or incidentals are often not disclosed.

To ensure you have a comprehensive list of all ingredients and incidentals in all the raw materials you purchase and use, ask all your suppliers for:

- **A composition statement**: A full disclosure of both an INCI list and incidentals.
- **An impurity statement or certification**: This will help you assess for lead.

Tell your suppliers that you want all ingredients and incidentals, including those present at low levels. For example:

- If you use an aqueous plant extract, is a preservative used in that extract?
- Are PFAS used as processing aids to manufacture your raw materials?

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9 https://www.theic2.org/wp-content/uploads/2023/07/Principles_of_Chemical_Ingredient_Disclosure5.pdf

10 https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/safer-alternatives/safer-chemicals-for-manufacturers

Review the list

Review the list for the presence of the restricted chemicals listed in Table 1.

The following chemical classes could be more challenging to review as their classes contain many chemicals:

- **PFAS**: To help you determine if any chemicals on the list are a PFAS, review your list for the word **fluoro-**.
- **Phthalates**: Review the list for the word **phthalate** to help you determine if your product may contain an ortho-phthalate.

This approach will help you identify most of the chemicals that could be in the PFAS or ortho-phthalate chemical classes.

We also included a list of some of the PFAS and ortho-phthalate chemicals used in cosmetics in Appendix A. The list isn't exhaustive and doesn't include synonyms. Many cosmetic ingredients have hundreds of known synonyms, so verify naming or use a unique identifier like CAS or EINCES when verifying your product doesn't have any of these chemicals or chemical classes.

If you need help determining if a chemical on your list is a PFAS or ortho-phthalate, please email ToxicFreeCosmetics@ecy.wa.gov.

Additional support

There are also third-party consultants and technology platforms that can help you gather your list of ingredients and incidentals in the raw materials used to make the product. This can help you:

- Ensure the review is thorough.
- Identify if any of the chemicals or chemicals classes listed in Table 1 are in your product.

Working with a third-party consultant or technology platform is also particularly useful when a supplier isn't willing to share the information with you directly. In some cases, the supplier will be willing to disclose the information you are requesting to a third party.

Supplier attestations of compliance

If suppliers aren't willing or able to disclose all the ingredients and incidentals in the raw materials they sell to you, you might consider requesting supplier attestations of compliance. While it will likely be less time and resource intensive than the first approach, there is a higher likelihood that the information you receive from this approach isn't complete.

To use this approach, share the list of restrictions with your suppliers and ask if any of the restricted chemicals or chemicals in the restricted classes are either ingredients or

incidentals the raw materials you purchase from them to make your product. They should be able to either provide you with laboratory data or a signed statement .

- If they provide laboratory data, make sure you receive appropriate quality control information.
- If they provide you with a signed statement, make sure it either attests to the absence of all the restricted chemicals and/or they attest to their raw materials sold to you complying with Washington state's Toxic-Free Cosmetics Act.

An example where you might need this type of attestation is when the fragrance formulation isn't disclosed because it is considered a trade secret, and they only share the fragrance trade name with you. The fragrance may contain an ortho-phthalate or some other restricted chemical.

Laboratory data is the most common pathway to assess impurities. At a minimum, consider requesting lead test results from suppliers of ingredients that are more likely to contain lead impurities (such as fillers and color additives).

You could use a third-party consultant to help gather both attestations and test data.

Analytical testing

After engaging with your suppliers, you might have a few questions on the composition of your final product including ingredients, incidentals, and impurities. You can use analytical testing to fill these gaps in knowledge. Analytical testing involves laboratory testing of the finished product for the presence and/or use-level of any restricted chemical.

Analytical testing won't account for variability in the composition of raw materials over time unless you create a monitoring plan. If you plan to use analytical testing, you'll need to:

- Ensure that an appropriate extraction or digestion method and analytical method is used to measure total concentration in your product matrix.
- Work directly with an analytical testing laboratory to select the appropriate test methods to answer your questions about the product.

It can be expensive to conduct analytical testing, especially for a long list of chemicals. We recommend you do as much as you can with the first two approaches and then fill in knowledge gaps with this approach.

Testing for lead

TFCA's limit for lead in the final product is ten times lower than the federal limit, so you need to ensure the laboratory's test method has adequate detection and reporting limits.

Testing for PFAS

It may be more cost-effective to screen for PFAS by testing for **total fluorine** rather than using a list of PFAS. This will give you more comprehensive results, too.

Total organic fluorine tests may miss fluorinated polymers, such as PTFE (polytetrafluoroethylene). To avoid this, you could screen for total fluorine.

If you test for total fluorine to screen for PFAS and total fluorine is detected, you can talk to your supplier(s) to determine the source of fluorine. It could be an inorganic ingredient such as magnesium fluoride or boron trifluoride and not a PFAS.

If restricted chemicals are detected

If you detect restricted chemicals, we recommend you talk with your suppliers to:

- Determine if the chemical assessed was an ingredient, incidental, or impurity.
- Identify unintentional sources of the chemical so they can try to reduce or eliminate them.
- Identify sources of lead impurities.

Step 3: Act on your findings

If you didn't get all the information you needed from a supplier to assess TFCA compliance, you might consider changing suppliers to one that will provide the information you need.

If you identify one or more of the restricted chemicals or chemicals in the restricted classes in a raw material, you can comply with the new law by either:

- Reformulating.
- Discontinuing sale of the product in Washington state when the restrictions begin.

If you choose to reformulate, we encourage you to go beyond compliance and seek out alternatives that are safer. Please visit our safer chemicals for manufacturer webpage[11] to learn more or contact us[12] if you need:

- Technical assistance.
- Additional resources to find safer alternatives.

If you choose to reformulate to a safer product, you can communicate this to customers by getting your product certified by a third-party material health certification. For qualifying businesses, we can help reduce the cost of certification through our safer cosmetics certification subsidy program.[13]

11 https://ecology.wa.gov/safer-mfgs

12 ToxicFreeCosmetics@ecy.wa.gov

13 https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/safer-alternatives/safer-chemicals-for-manufacturers/cosmetics-certification-subsidy-program

Stay informed

Sign up for the Toxic-Free Cosmetics Act email list[14] to follow our progress and engage in the process.

Email questions to ToxicFreeCosmetics@ecy.wa.gov.

14 https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/safer-alternatives/safer-chemicals-for-manufacturers/cosmetics-certification-subsidy-program

Appendix A. Common PFAS and Ortho-Phthalates in cosmetics

These are some of the more common PFAS and ortho-phthalates found in cosmetics. These lists aren't exhaustive.

PFAS

Table 2: Common PFAS in cosmetics.

PFAS	CAS Number
Perfluorodecalin	306-94-5
Polytetrafluoroethylene acetoxypropyl betaine	123171-68-6
Dioctyldodecyl fluoroheptyl citrate	214334-16-4
Tetrafluoropropene	29118-24-9
PTFE	9002-84-0
Perfluorononyl dimethicone	NA*
Methyl perfluorobutyl ether	163702-07-6
Methyl perfluoroisobutyl ether	163702-08-7
Perfluorohexane	355-42-0
Perfluorohexylethyl triethoxysilane	51851-37-7
Pentafluoropropane	460-73-1
Perfluoroperhydrophenanthrene	306-91-2
Perfluorononylethyl stearyl dimethicone	NA*
Perfluorooctylethyl triethoxysilane	101947-16-4
Dioctyldodecyl fluoroheptyl citrate	NA*
Perfluorooctylethyl trimethoxysilane	83048-65-1
Perfluorohexylethyl triethoxysilane	51851-37-7
Polysilicone-7	146632-08-8

*NA: Not applicable

See additional PFAS on the FDA's PFAS in cosmetics webpage.[15]

15 https://www.fda.gov/cosmetics/cosmetic-ingredients/and-polyfluoroalkyl-substances-pfas-cosmetics

Ortho-phthalates

Table 3: Common ortho-phthalates in cosmetics.

Ortho-Phthalate	CAS Number
Dimethyl phthalate	131-11-3
Diethyl phthalate	84-66-2
Dibutyl phthalate	84-74-2
Diisononyl phthalate	28553-12-0, 68515-48-0
Diethylhexyl phthalate (DEHP)	117-81-7
Acryloyloxyethyl phthalate	30697-40-6
Butyl phthalyl butyl glycolate	85-70-1
Butyl benzyl phthalate	85-8-7

See additional ortho-phthalates on page 22 of the Campaign for Safe Cosmetics red list.[16]

16 https://www.safecosmetics.org/wp-content/uploads/2024/04/Campaign-for-Safe-Cosmetics-red-list-do-not-use-list-chemicals.pdf