ChatGPT

Cosmetic Testing Requirements Matrix for the US, EU, and Canada

Executive summary

Across the **European Union**, **United States**, and **Canada**, cosmetic law rarely names a fixed "mandatory test panel" for every product. Instead, regulators expect you to **hold evidence that your product is safe for its intended and reasonably foreseeable use** (and, when you make objective claims, that those claims are **truthful and supported**). The practical result is that the "required vs recommended" boundary differs strongly by jurisdiction and by whether the product is a **cosmetic vs a drug/NHP**. [1]

The **EU** is the most explicit on *what data you must compile* before sale: the **Cosmetic Product Safety Report (CPSR)** must include, at minimum, stability data, microbiological quality specifications, "results of preservation challenge test," and information about impurities/traces and packaging material—making these items *de facto mandatory* for most water-containing and/or microbiologically at-risk cosmetics. [2]

In the **US**, the European Commission [3] notes no pre-market approval for cosmetics (except colour additives) and specifically states it does **not** maintain a list of required tests; however, under US law and **MoCRA**, the "responsible person" must maintain **safety substantiation records**, and FDA can access certain records under defined conditions. This makes robust, standardised testing an industry expectation—especially for microbiological control and stability—even if not formally "mandated" test-by-test for cosmetics. [4]

In **Canada**, there is a formal **post-market** posture: you must notify and be able to provide **evidence of safety** if requested, and there are explicit label/claim substantiation duties (including a requirement that certain claims be validated by evidence and provided to the Minister upon request). This pushes many tests into "conditional but practically necessary" status, especially when claims or higher-risk use populations are involved. [5]

A key structural complication is **category drift**: products that are "cosmetics" in the EU may be "drugs" in the US/Canada (classic example: **sunscreens**). When the product is regulated as a drug/NHP, **efficacy testing (e.g., SPF)** and drug-quality expectations become much closer to truly "mandatory." [6]

Regulatory baseline and product classification

What the law requires before you pick tests

EU cosmetics (Regulation (EC) 1223/2009)
Before placing a cosmetic on the EU market, the responsible person must ensure the product underwent a **safety assessment** and that a **CPSR** is set up in accordance with **Annex I**. The Product Information File must be kept for **10 years after the last batch** is placed on the market. [7]

EU manufacturing must comply with **GMP**, with presumption of conformity where you manufacture according to published harmonised standards; the EU's harmonised standards list under 1223/2009 explicitly includes **EN ISO 22716:2007**. [8]
Annex I is unusually specific about the categories of evidence expected in the safety file, including: stability, microbiological specifications and challenge test results, impurities/traces and packaging material characteristics, and a toxicological profile emphasising local toxicity (skin/eye irritation, sensitisation) and photo-induced toxicity where relevant. [9]

US cosmetics (FD&C Act + MoCRA implementation)
FDA states it **does not pre-approve cosmetic products** (except colour additives) and does **not** provide a list of required tests; however, the manufacturer/distributor is legally responsible for ensuring the product is safe under labelled or customary conditions of use. [10]
MoCRA adds operational compliance layers (facility registration, product listing, adverse event reporting, safety substantiation, forthcoming GMP/fragrance allergen rulemaking), and FDA can suspend facility registrations under certain serious-risk conditions—making "documented testing + controls" a meaningful enforcement-risk reducer. [11]
For **claims**, substantiation risk is not only "FDA": the Federal Trade Commission [12] enforces a legal requirement that advertisers have a **reasonable basis** for objective claims, and for health-related benefit/safety claims, expects science-backed substantiation. [13]

Canada cosmetics (Food and Drugs Act + Cosmetic Regulations)
In Canada, **notification** is required: manufacturers/importers must provide the Minister a notification **within 10 days after first sale** (and must update within 10 days after information becomes inaccurate). Recent text also includes prohibitions on continuing sales if the notification obligations are not met. [14]
Canada also has a direct mechanism for **evidence of safety**: the Minister may request evidence demonstrating safety under recommended/normal conditions; failure to comply requires you to **cease sale**, and insufficient evidence triggers a stop-sale until adequate evidence is provided. [15]
Canada additionally imposes claim substantiation duties: certain product/ingredient effect and "won't injure health" type claims require **evidence**, which must be provided upon request. [15]
Ingredient restrictions are operationalised via the **Cosmetic Ingredient Hotlist** used to keep industry aware of prohibited/restricted substances. [16]

Decision flow: cosmetic vs drug/NHP and "test panel" consequences

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flowchart TD
  A[Define intended use + claims + site of application] --> B{Jurisdiction?}
  B --> EU[EU]
  B --> US[US]
  B --> CA[Canada]

  EU --> EU1{Is it a cosmetic under 1223/2009?\n(case-by-case)}
  EU1 -->|Yes| EUcos[EU cosmetic: CPSR + PIF + CPNP prior to market\nEvidence
must cover Annex I data categories]
  EU1 -->|No / borderline| EUother[May be medicinal device/biocide/
medicine\nDifferent testing regime]
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  US --> US1{Are you making drug claims\nor is it an OTC category (e.g.,
sunscreen)?}
  US1 -->|Cosmetic only| UScos[US cosmetic: no fixed test list\nBut safety
substantiation + FTC claim support expected]
  US1 -->|OTC drug| USdrug[US OTC drug: follow drug rules incl. test
methods\n(e.g., SPF/broad spectrum for sunscreens)]

  CA --> CA1{Is product a cosmetic vs NHP vs non-prescription drug?}
  CA1 -->|Cosmetic| CAcos[Canada cosmetic: notify within 10 days\nHold safety
evidence + claim validation]
  CA1 -->|NHP/Drug| CAdrug[Canada NHP/drug: monographs + evidence\n(e.g.,
sunscreen monograph for SPF methods)]
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This flow reflects that in the EU, "required tests" are largely driven by what Annex I obliges you to document in the CPSR; in the US/Canada, it is driven by (a) classification as cosmetic vs drug/NHP and (b) claims substantiation and safety-evidence expectations. [17]

Comparative testing requirements matrix

Legend and scope assumptions

Codes used below:

- **M (Mandatory)**: explicitly required by law/regulation for that product category *or* required as a compulsory documentation element that must be supported by data (EU CPSR Annex I logic). [9]
- **C (Conditional)**: required when the product/formula/claims create a foreseeable risk pathway (e.g., eye-area use, baby products, water-containing products, UV claims, nitrosamine-forming ingredients). [18]
- **R (Recommended / industry standard)**: not explicitly mandated test-by-test for cosmetics, but strongly expected to substantiate safety/claims and reduce enforcement and recall risk. [19]

Matrix: tests by product type trigger and jurisdiction

Test / evidence area	Practical trigger (product type, formula, claim)	EU (cosmetic)	US (cosmetic)	Canada (cosmetic)
Stability (physical/ chemical) & shelf-life	All categories; especially emulsions, actives prone to degradation	**M** (CPSR must include physical/ chemical characteristics + stability under foreseeable storage) [20]	**R** (safety responsibility + substantiation records) [21]	**R/C** (safety evidence on request; often expected for shelf-life/label) [22]

Test / evidence area	Practical trigger (product type, formula, claim)	EU (cosmetic)	US (cosmetic)	Canada (cosmetic)
Packaging compatibility (extractables/ leachables as relevant; interaction, stability, integrity)	New packaging; high solvent/ fragrance load; pumps/sprays; reactive actives	**M** (CPSR must include packaging material characteristics; purity/stability) [23]	**R** (supports safety substantiation; reduces contamination/ complaints) [24]	**R/C** (supports safety evidence and complaint defence) [25]
Microbial limits / microbiological quality (ISO 17516 concept)	Water-containing products; high consumer exposure; jars; salon use	**M/C** (CPSR requires micro specifications; SCCS defines Category 1 vs 2 limits) [26]	**R** (FDA highlights microbiological safety risks; no fixed required test list) [27]	**R/C** (evidence of safety mechanism; higher scrutiny for vulnerable uses) [22]
Preservative efficacy / PET (ISO 11930 or equivalent challenge test)	Any preservative-containing or water activity-supporting product; "clean" formulas; jars	**M/C** (CPSR requires "results of preservation challenge test" for microbial control; SCCS notes challenge testing as mandatory where product may deteriorate/risk infection) [26]	**R** (key safety substantiation practice; no mandated list) [21]	**R/C** (supports safety evidence-on-request; also linked to injury-prevention claims) [22]
Microbiologically low-risk justification (risk assessment vs full testing)	Anhydrous, high alcohol (>20%), extreme pH, sealed packaging	**C** (SCCS notes end-product testing not necessary in justified cases; cites ISO 29621 concept) [28]	**C** (permitted as a scientific rationale within substantiation) [21]	**C** (works when defensible as "evidence of safety") [15]

Test / evidence area	Practical trigger (product type, formula, claim)	EU (cosmetic)	US (cosmetic)	Canada (cosmetic)
pH testing	pH-dependent preservation/ compatibility; leave-on acids; oral cosmetics	**C** (supports stability/micro control and irritation risk evaluation in CPSR) [29]	**R/C** (supports irritation/safety substantiation) [30]	**C/M in special cases** (e.g., tooth stain removal products must have pH $\geq$ 4; HC expects a lab pH report for tooth-whitening evidence package) [31]
Heavy metals / elemental impurities (ICP-MS or similar)	Colour cosmetics, mineral pigments, clays, "natural" raw materials, talc, mica	**C** (impurities/traces must be characterised; technically unavoidable traces may be permitted only if safe; CPSR requires impurity/ trace and packaging info) [23]	**R/C** (FDA surveys metals and recommends controls; lead guidance recommends max 10 ppm as impurity in lip/ external cosmetics) [32]	**R/C** (HC provides guidance on heavy metal impurities and restricts substances via Hotlist framework) [33]
Nitrosamines (analytical testing / risk control)	DEA/TEA/DIPA + nitrosating agents; certain preservatives; rubber contact	**C** (EU SCCS has detailed risk positions on nitrosamines/ secondary amines; nitrosamines are treated as serious safety concerns requiring control) [34]	**R/C** (risk-based control; no cosmetic-specific mandatory panel stated by FDA) [35]	**C** (HC flags DEA/DIPA and nitrosamine formation risk; control/testing becomes defensible for safety evidence) [36]

Test / evidence area	Practical trigger (product type, formula, claim)	EU (cosmetic)	US (cosmetic)	Canada (cosmetic)
PAHs / mineral oil aromatic hydrocarbon control	Mineral oils; petrolatum; certain waxes; carbon black; contaminated naturals	**C** (risk control is tied to "known refining history / non-carcinogenic starting material" concepts; BfR describes EU approach incl. IP346 screening for certain mineral oil fractions) [37]	**R/C** (risk-based impurity control under general safety duty) [35]	**R/C** (risk-based impurity control under evidence-of-safety regime) [25]
Skin irritation hazard (OECD TG 439 or equivalent; HRIPT for finished product as appropriate)	Leave-on, acids/ retinoids, fragranced, baby; new actives	**C** (CPSR requires local toxicity focus incl. irritation; SCCS guidance emphasises NAMs; in vitro methods are standard) [38]	**R/C** (supports safety substantiation; test choice risk-based) [21]	**R/C** (supports evidence of safety on request) [15]
Skin sensitisation / allergy (OECD TG 442D/442E/defined approaches; HRIPT for product compatibility/ claims)	Fragrance, preservatives, botanicals; long-wear products; "hypoallergenic" claims	**C** (CPSR emphasises sensitisation; EU allergen labelling regimes raise enforcement pressure) [39]	**R/C** (strong FTC risk for allergy-related benefit/ safety claims) [40]	**R/C** (claim validation + safety evidence posture) [22]
Eye irritation / ocular tolerance (OECD TG 492B/ 492; ophthalmologist test for finished product where used)	Mascara/ eyeliner/eye cream; cleansing balms; baby shampoo	**C** (CPSR local toxicity; higher micro scrutiny for eye-area products) [41]	**R/C** (safety substantiation; higher liability if eye-area) [42]	**R/C** (evidence of safety; label/ claim controls) [22]
Phototoxicity / photo-induced toxicity (OECD TG 432 or equivalent)	UV absorbers, photosensitising oils, leave-on acids/retinoids; brightening agents	**C** (CPSR explicitly flags photo-induced toxicity where UV absorption is relevant) [43]	**R/C** (supports substantiation, reduces adverse events) [24]	**R/C** (supports evidence-of-safety) [15]

Test / evidence area	Practical trigger (product type, formula, claim)	EU (cosmetic)	US (cosmetic)	Canada (cosmetic)
Acute / repeated dose systemic tox (ingredient-level, typically literature/ read-across; finished-product studies are exceptional)	High systemic exposure pathways (sprays, lip products, large-area leave-on), novel ingredients	**C** (CPSR requires toxicological profile and MoS; non-clinical studies must meet GLP/ recognised standards) [44]	**R/C** (needed when exposure warrants; part of substantiation records) [45]	**R/C** (needed when exposure warrants; supports safety evidence) [15]
Colour additive compliance / certification	Colour cosmetics; products using FD&C/D&C colours	**C** (permitted colourants controlled via Annex IV system) [46]	**M/C** (colour additives must be approved; some are subject to FDA batch certification) [47]	**C** (ingredient restrictions + INCI/label rules; some eye-area dye prohibitions exist) [48]
Claim substantiation studies (efficacy) *(anti-aging, moisturisation, etc.)*	Any objective performance claim; "clinically proven"	**C/M** (PIF must include proof of claimed effect where justified; EU claims must meet common criteria for justification) [49]	**C** (FTC requires substantiation for objective claims; enforcement history exists in cosmetics) [50]	**C** (Canada requires evidence validating specified chemistry/ health-injury-related claims; must provide on request) [15]

Sunscreen-specific matrix (because classification diverges)

Sunscreen topic	EU	US	Canada
Regulatory classification	Cosmetic product (but treated as high-risk; UV filters restricted to Annex VI) [46]	OTC drug; labelling/test methods set in regulation (21 CFR) [51]	Drug / NHP pathway via monograph approach; SPF and broad spectrum are claim-controlled [52]

Sunscreen topic	EU	US	Canada
SPF test method basis	ISO methods widely used; EU sunscreen Recommendation references standardised methods and critical wavelength concepts; ISO 24444 is the in vivo SPF reference method [53]	FDA test/labelling requirements (eCFR) [54]	Monograph requires SPF determined by standardised reproducible method (examples include FDA M020 and ISO 24444 / newer ISO methods) [52]
UVA / broad spectrum	EU Recommendation uses critical wavelength/"broad protection" concepts [55]	Broad spectrum test and label requirements in regulation [54]	Broad spectrum tied to critical wavelength $\geq$ 370 nm with validated method examples including ISO 24443 [56]
Water resistance	Conditional (only if claimed; must be substantiated) [57]	Conditional (only if claimed; defined by FDA rule) [54]	Conditional; monograph specifies standardised reproducible method references for water resistance claims [52]

Documentation and labelling deliverables that drive the testing plan

European Union deliverables

EU compliance is "file-driven." The **CPSR** (Annex I) is not a single test, but it requires you to assemble and document: stability, microbiological quality specifications, **preservation challenge test results**, impurities/traces (including technical unavoidability for prohibited-substance traces), and packaging material characteristics. [23]

The **PIF** must also include (where justified) proof of the claimed effect and be kept **10 years after the last batch** is placed on the market. [58]

Labelling must include durability information: if minimum durability is **> 30 months**, the date of minimum durability is not mandatory, but a **PAO** must be indicated unless not relevant; if $\leq$ 30 months, a "best used before end of" durability date applies. [59]

Fragrance allergen labelling is expanding under Regulation (EU) 2023/1545; transitional provisions allow non-compliant products to be placed on the market until **31 July 2026** and made available until **31 July 2028** for specified cases, increasing supply chain and analytical disclosure pressure for fragranced products. [60]

United States deliverables

For cosmetics, FDA reiterates there is **no FDA-issued required test list**, but the company is legally responsible for product safety. [30]

MoCRA's operational obligations include: **facility registration (biennial renewal)** and **product listing (annual updates)**, and FDA highlights that registration can be suspended in serious risk scenarios with

distribution then becoming a prohibited act—meaning weak test documentation can escalate business risk during investigations. [61]
Colour cosmetics often trigger an additional compliance layer: the FDA maintains that colour additives must be approved for intended use, and some are subject to **batch certification** (this is not a "test panel" but it can force upstream QC and documentation). [62]
For **claims**, FTC substantiation doctrine is a primary practical driver: objective claims must be backed by a reasonable basis, and the FTC has brought cosmetics actions for unsupported anti-aging claims. [50]

Canada deliverables

Canada requires bilingual labelling for required label information (English and French, except INCI names), and the ingredient list must appear on the outer label using **INCI names** per the Cosmetic Regulations. [63]
The **notification requirement** is explicit (within **10 days after first sale**) and the current regulation text includes a prohibition on continuing sales if the documents are not provided on time. [14]
Canada's evidence-of-safety authority is unusually direct: failure to provide evidence requested by the Minister (or providing insufficient evidence) leads to a mandatory **stop-sale** until adequate evidence is accepted. [15]
Claim evidence requirements in section 21 (chemistry influence / injury-avoidance implications) make "efficacy or safety-compatibility testing" legally material for many marketing statements, especially for baby, sensitive-skin, and "won't irritate" type claims. [15]

Practical testing notes for building your internal matrix

A risk-based approach that maps well to enforcement reality

A workable "matrix logic" for most brands is:

1) **Start with Annex-I style evidence categories** (stability, micro quality, challenge test, impurities, packaging, tox profile) as your universal baseline, because that structure is explicitly demanded in the EU and is also persuasive safety substantiation elsewhere. [64]
2) Add **claim-driven studies** only where you make objective performance claims (SPF, moisturisation %, wrinkle reduction, "clinically proven") because EU and Canada explicitly demand claim proof in-file where justified and the US FTC expects science-backed substantiation for objective claims. [65]
3) Use **conditional contaminant panels** (nitrosamines, PAHs, metals) when the formulation/raw materials create a plausible formation or carryover pathway (amines + nitrosating agents, mineral oils, pigments, plant powders, talc). This aligns with EU's "impurities/traces" documentation duty and Canada's "evidence of safety" posture, and matches FDA's contaminants focus areas even without a federal numeric limit for every metal/compound. [66]

Typical lab timelines and operational planning values

Turnaround varies by lab and whether you need method development, but the following are common planning anchors:

Preservative efficacy / challenge testing (ISO 11930-style) is structurally a multi-timepoint study; ISO 11930 is designed around a preservation efficacy test plus interpretation/risk assessment steps, and many challenge protocols run through a ~28-day evaluation window, which commonly makes "calendar time"

several weeks once scheduling and reporting are included. [67]
In vitro irritation and eye hazard methods (e.g., OECD TG 439 and 492B) can often be completed in days once the lab slot is booked, whereas human repeat insult patch testing (HRIPT) for compatibility/claims often spans multiple weeks due to repeated exposures and follow-up. [68]
Stability evidence is commonly staged: accelerated screening can support early decisions but real-time shelf-life substantiation typically requires longer observation; ISO/TR 18811 exists as a cosmetic stability testing guideline framework rather than a single mandated protocol. [69]

Common exemptions and "acceptable justifications" you can document

If your product is **microbiologically low risk** (for example, high alcohol), the SCCS microbiological appendix notes that end-product testing may not be necessary "in some justified cases (e.g., alcohol content >20%)" and points toward ISO 29621-style risk assessment logic. Document these justifications explicitly (water activity, ethanol %, packaging barrier, consumer use pattern). [28]
Where you rely on supplier certificates (e.g., metals in pigments, PAH controls in mineral oils), the EU CPSR still expects impurity/traces characterisation and packaging information; the defensible approach is to treat supplier CoAs as **inputs**, then confirm via **periodic verification testing** tied to ingredient risk. [70]

Enforcement and penalty risks to capture in the matrix notes

In the EU, competent authorities can require corrective actions including withdrawal or recall where there is non-compliance (including GMP, CPSR/PIF obligations, or other requirements) and can take provisional measures where products present or could present a serious risk to human health. [71]
In the US, FDA can suspend facility registrations under serious-risk conditions and distribution from a suspended facility becomes a prohibited act; MoCRA also provides FDA records access authority for safety records when conditions are met. [72]
In Canada, failure to provide requested safety evidence or providing insufficient evidence compels a stop-sale, and failures to meet notification timing can also restrict continued sale. [73]

Methods and sources

This matrix is derived from **primary legal texts and official regulator guidance** for the EU, US, and Canada, supplemented with **international standards** (ISO) and **OECD test guidelines** where regulators recognise or rely on them as accepted scientific methods. Key secondary sources were used only where (a) they reproduce official requirements, or (b) the topic is operational (e.g., typical test duration) rather than legal. [74]

Primary source links (official / authoritative) are provided below (URLs shown in code format):

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EU — Cosmetics Regulation (EC) No 1223/2009 (EUR-Lex):
https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32009R1223

EU — Harmonised standards under 1223/2009 (includes EN ISO 22716):
https://single-market-economy.ec.europa.eu/single-market/goods/european-
standards/harmonised-standards/cosmetic-products_en
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EU — SCCS Notes of Guidance (12th revision) + Appendix on microbiological quality:
https://health.ec.europa.eu/document/download/32a999f7-d820-496a-b659-d8c296cc99c1_en?filename=sccs_o_273_final.pdf

EU — Commission Regulation (EU) 2023/1545 (fragrance allergen labelling):
https://eur-lex.europa.eu/eli/reg/2023/1545/oj/eng

EU — Commission Regulation (EU) No 655/2013 (claims common criteria):
https://eur-lex.europa.eu/eli/reg/2013/655/oj/eng

US — FDA MoCRA hub:
https://www.fda.gov/cosmetics/cosmetics-laws-regulations/modernization-cosmetics-regulation-act-2022-mocra

US — FDA Registration & Listing (Cosmetics Direct):
https://www.fda.gov/cosmetics/registration-listing-cosmetic-product-facilities-and-products

US — FDA Product Testing of Cosmetics:
https://www.fda.gov/cosmetics/cosmetics-science-research/product-testing-cosmetics

US — 21 CFR 201.327 (sunscreen labelling/test methods context):
https://www.ecfr.gov/current/title-21/chapter-I/subchapter-C/part-201/section-201.327

Canada — Cosmetic Regulations (current consolidated text):
https://laws-lois.justice.gc.ca/eng/regulations/C.R.C.%2C_c._869/FullText.html

Canada — Guide for Cosmetic Notifications:
https://www.canada.ca/en/health-canada/services/consumer-product-safety/cosmetics/notification-cosmetics/guide.html

Canada — Cosmetic Ingredient Hotlist:
https://www.canada.ca/en/health-canada/services/consumer-product-safety/cosmetics/cosmetic-ingredient-hotlist-prohibited-restricted-ingredients/hotlist.html

Canada — Primary Sunscreen Monograph (testing method references):
https://webprod.hc-sc.gc.ca/nhpid-bdipsn/dbImages/mono_primary-sunscreen-monograph_english.pdf

ISO — ISO 11930 (preservative efficacy / antimicrobial protection evaluation):
https://www.iso.org/standard/75058.html

ISO — ISO 22716 (cosmetic GMP guideline standard):
https://www.iso.org/standard/36437.html

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ISO — ISO 24444 (in vivo SPF method):
https://www.iso.org/standard/72250.html

ISO — ISO 24443 (in vitro UVA method):
https://www.iso.org/standard/75059.html

OECD — Test Guideline 439 (in vitro skin irritation):
https://www.oecd.org/en/publications/2021/06/test-no-439-in-vitro-skin-
irritation-reconstructed-human-epidermis-test-method_g1g59b2f.html

FTC — Advertising substantiation policy statement:
https://www.ftc.gov/legal-library/browse/ftc-policy-statement-regarding-
advertising-substantiation
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1 2 3 7 8 9 12 17 18 20 23 26 29 38 39 41 43 44 46 49 58 59 64 65 66 70 71 74 https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32009R1223
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14 https://laws-lois.justice.gc.ca/eng/regulations/C.R.C.%2C_c._869/section-30.html
https://laws-lois.justice.gc.ca/eng/regulations/C.R.C.%2C_c._869/section-30.html

16 https://www.canada.ca/en/health-canada/services/consumer-product-safety/cosmetics/cosmetic-ingredient-hotlist-prohibited-restricted-ingredients/hotlist.html
https://www.canada.ca/en/health-canada/services/consumer-product-safety/cosmetics/cosmetic-ingredient-hotlist-prohibited-restricted-ingredients/hotlist.html

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https://www.fda.gov/cosmetics/cosmetics-laws-regulations/modernization-cosmetics-regulation-act-2022-mocra

27 https://www.fda.gov/cosmetics/potential-contaminants-cosmetics/microbiological-safety-and-cosmetics
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28 https://health.ec.europa.eu/document/download/32a999f7-d820-496a-b659-d8c296cc99c1_en?filename=sccs_o_273_final.pdf
https://health.ec.europa.eu/document/download/32a999f7-d820-496a-b659-d8c296cc99c1_en?filename=sccs_o_273_final.pdf

32 https://www.fda.gov/cosmetics/potential-contaminants-cosmetics/fdas-testing-cosmetics-arsenic-cadmium-chromium-cobalt-lead-mercury-and-nickel-content
https://www.fda.gov/cosmetics/potential-contaminants-cosmetics/fdas-testing-cosmetics-arsenic-cadmium-chromium-cobalt-lead-mercury-and-nickel-content

33 https://microchemlab.com/test/iso-11930-preservative-effectiveness-test/
https://microchemlab.com/test/iso-11930-preservative-effectiveness-test/

34 https://ec.europa.eu/health/scientific_committees/consumer_safety/docs/sccs_o_090.pdf
https://ec.europa.eu/health/scientific_committees/consumer_safety/docs/sccs_o_090.pdf

36 https://www.canada.ca/en/health-canada/services/consumer-product-safety/cosmetics/labelling/safety-ingredients.html
https://www.canada.ca/en/health-canada/services/consumer-product-safety/cosmetics/labelling/safety-ingredients.html

37 https://www.bfr.bund.de/cm/349/highly-refined-mineral-oils-in-cosmetics-health-risks-are-not-to-be-expected-according-to-current-knowledge.pdf
https://www.bfr.bund.de/cm/349/highly-refined-mineral-oils-in-cosmetics-health-risks-are-not-to-be-expected-according-to-current-knowledge.pdf

40 https://www.ftc.gov/business-guidance/resources/health-products-compliance-guidance
https://www.ftc.gov/business-guidance/resources/health-products-compliance-guidance

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