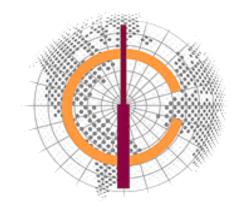
Cosmetics Legislation in the USA and Canada



IKW Seminar November 22, 2019
Janet Winter

International Cosmetics & Regulatory Specialists, LLC. (US)
International Cosmetics & Chemical Services, LTD. (EU & UK)



US Active Issues

- Proposed FDA Cosmetics registration
- FDA request for data on 12 SunscreensCalifornia/UV Filters
- Organic/Natural Claims
- Ingredient listing/INCI names
- Cannabidiol/CBD Oil
- State regulations
 - Environmental
 - CARB
 - Volatile Organic Compounds, tonnage reduction deadlines
 - Human Health
 - OEHHA
 - Proposition 65 latest developments
 - DTSC
 - "Green Chemistry"
 - **1,4-Dioxane** in groundwater
- "Clean Beauty" strategies with Retailers





<u>US FDA</u>

- Legislation continues to be presented that would require one or more of the following:
 - Registration of cosmetics (similar to CPNP)
 - Accountability for raw materials
 - User fees for
 - Manufacturer
 - Distributor
- Third time around for the introduction of legislation
- Likelihood of becoming law, short term and long term

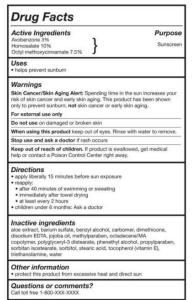




US Sunscreen regulations Basics

Sunscreens (SPFs) are Drugs, not cosmetics.







Sunscreen Regulations

- Labelling
 - Claims
 - Warnings
- Testing
- Ingredients
- Uses/product delivery
- Good Manufacturing Practices





Sunscreen ingredients

Regulations categorizes ingredients:

- Category 1- Safe and effective
- Category 2- Forbidden
- Category 3- possibly safe and effective, more data needed





New Sunscreen ingredient data needed

FDA observed the potential for systemic exposure on

- developmental toxicity
- reproductive toxicity.
 - FDA is seeking significant testing on the Category III ingredients, including Maximal Usage Trial Study (MUsT), dermal carcinogenicity tests, systemic carcinogenicity tests, DART (fertility and early embryonic development, prenatal and postnatal development, embryofetal development in two species-rodent and non-rodent)
- Need more toxicological data on 12 ingredients



Sunscreen active ingredients

- FDA observed that these 10 ingredients had the potential for transdermal absorption and systemic exposure, chronic exposure
 - Cinoxate
 - Dioxybenzone
 - Ensulizole
 - Homosalate
 - Meradimate
 - Octinoxate
 - Octisalate
 - Octocrylene
 - Padimate O
 - Sulisobenzone





Sunscreen Active Ingredients

Ingredients for Which the Record Contains Fewer Data Gaps:

- Oxybenzone and
- Avobenzone

FDA still requesting information nonetheless.





Sunscreens USA vs Europe

REQUIREMENT	USA	EUROPE
GMP	21CFR 211	ISO 22716
SPF TESTING	21CFR 201 OTC Monograph1. SPF Determination2. UVA BROAD Spectrum3. Water Resistance 40 to 80 min	 ISO 24444 Static and Water resistant ISO 24443 Broad Spectrum
SHELF LIFE Stability	 Accelerated Stability 6- 9 months Real Time through expiration Maximum expiration on label 3 yrs 	1. Accelerated Stability
PET or Water Activity	Which ever is applicable	Which ever is Applicable Period After Opening symbol Date of Minimum Durability



SUNSCREENS USA vs Europe

REQUIREMENT	USA	EUROPE
OUTER	 Product descriptor (FP) Weight claim (FP) DRUG FACTS BOX Distributor – name & address Country of Origin Lot code & Expiration 	 Product descriptor Weight claim Ingredients Warnings Possible SPF ingredient Distributor – name & address Country of origin PAO or Durability date Lot Code



SUNSCREENS USA vs Europe

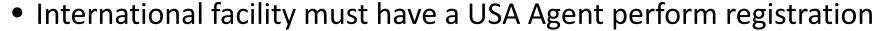
LABELING	USA	EUROPE
INNER	 Product descriptor (FP) 	 Product descriptor
	• Weight claim (FP)	Weight claim
	Active ingredients & %	 Warnings
	• Warnings	 Possible SPF ingredient
	Distributor – name & address	• Distributor – name & address
	Country of Origin	Country of origin
	Lot code & Expiration	PAO or Durability date
		• Lot Code



SUNSCREENS LEGALIZATION

USA

- Fulfill GMP at manufacturer under 21CFR 211
- Manufacturer must register Facility annually



- Registration identifies the company to FDA
- FDA will perform GMP audit of facility for OTC compliance
- FDA Audit results in an Establishment Inspection Report (EIR)
- Any observations requiring improvement will be identified on FDA Form 483





SUNSCREEN LEGALIZATION

EUROPE

- Cosmetic File
 - Safety Assessment
 - Cosmetic Product Safety Report (CPSR)
- Product Information File
 - Responsible Person accepts Safety Assessment & CPSR
 - Confirms label acceptability
- Cosmetic Product Notification Portal Submission (CPNP)





Organic and Natural Claims





Organic and Natural Claims

- US Department of Agriculture (USDA) National Organic Program
- Foods and/or Cosmetics?
- State of California





California- Organic Products Act

- Processed and/or Frozen
- Coffee, Tea
- •Juices, pulps, pastes, jams and jellies
- •Beverages, alcohol, liquor
- •Vegetable based dairy substitutes
- •Blended food products
- Egg products
- Prepackaged meats
- •Butter, curd, and whey products
- Extracts, flavorings
- •Candy, chewing gum, syrups
- •Dry grains, beans, and grain products
- Pasta, bread
- •Milled grains and seeds
- Spices and seasonings
- •Oil seeds, oils and lubricants
- •Vitamins, food supplements
- Pet food and/or blended, and byproducts thereof
- Cosmetics



Organic Claims

Must have at least 70% Organic content





Organic and Natural Claims

 California requires registration Every person engaged in this state in the processing or handling of processed products pursuant to Section 110460 of the Health and Safety Code, and pet food pursuant to Section 18653, and cosmetics pursuant to Section 111795 of the Health and Safety Code, including processors of alcoholic beverages, fish, and seafood, shall register with the State Public Health Officer. (annually)



Natural Claims

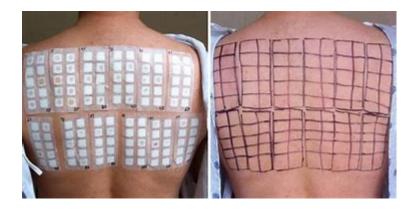
- Natural claims must be truthful
- "Made with" must not be deceptive
- Natural claim for entire product
- ISO 16128 is one way to provide proof, but no guarantees
- Must have rationale





Hypoallergenic Claims

- No legal or scientific standard for Hypoallergenic claims
- hRIPT use by industry
- Typically involving a Dermatologist
- Subject to challenge
- Sensitive individuals
- "Allergy tested"





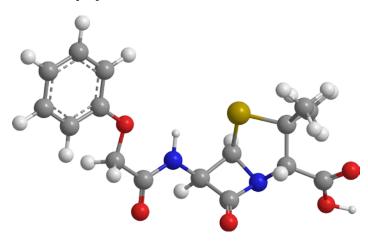
Hypoallergenic claim via pictogram





INCI Nomenclature

- USA implemented ingredient listing in 1976
- CTFA (Now PCPC) created reference with FDA blessing
- 16th Edition Dictionary, 2016 $\rightarrow \rightarrow \rightarrow$ wINCI
- Currently 22,600+ INCI names, 77,000+ Trade names
- Dictionary does NOT denote ingredient safety or approval



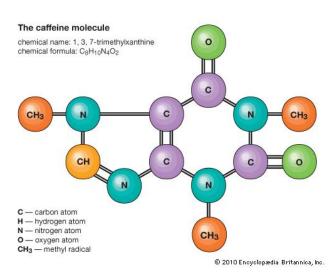


INCI Nomenclature

 "Organic" or similar types of processing are not a part of an INCI name.

 Any different name assignment is delineated by a different chemical composition (Water, Sea Water due to vastly different composition

and characteristics)





How is an INCI determined?

- INCI nomenclature Committee
- Naming is NOT random or as requested
- Modified as new science becomes available
- Compendial Standards
 - Pharmacopeia (USP, EP, BP, JP)
 - Nomenclature conventions (Chemical rules, CAS system)
 - Botanical references (Linnaean names, recognized references)
- Modified as new science and technology becomes available



INCI Nomenclature

- Foreign governments are provided with wINCI access by PCPC, ongoing
- Updated daily
- Competent Authorities reference wINCl
 - Product review for approvals
 - Shelf checks
- Cosing is provided with new INCIs from PCPC, but update on a different schedule



INCI Nomenclature

- EU multiple language dilemma
- Use of Latin names
- PCPC in constant contact with FDA
- Phase in of botanical names over several versions





INCI nomenclature: FDA's position

- Formally accepted 4th edition of INCI Dictionary
- Colorants/CI numbers are not acceptable
- Fair Packaging and Labeling Act (FPLA) specifies that ingredients must be listed by their "common or usual names"
- Avoid deceiving the consumer, must be clear



INCI Nomenclature

Example:

- Prunus Amygdalis Dulcis (Sweet Almond) Oil
- Previously Sweet Almond Oil in the US
- Previously botanical/Latin name in EU: Prunus Amygdalis Dulcis
- Name incorporates both



Cannabidiol (CBD)























Cannabidiol (CBD)

- Renewed interest in CBD Oil in Cosmetics
- States legalized Marijuana, but not all
- Much confusion about legality
- "All or nothing" approach by industry





Cannabidiol (CBD)

- Complicated by a formal Drug approval- establishes a precedent
- Ingredient performance
- Medical effects
- Claims and ease of regulatory issues- pick one





CBD Enforcement

Multiple companies issued enforcement by FDA

Why?

Physiological effects-drug action

Labelling claims

Composition of CBD oil





Example of Warning Letter from FDA for CBD



→ Home / Inspections, Compliance, Enforcement, and Criminal Investigations / Compliance Actions and Activities / Warning Letters / Rooted Apothecary LLC - 585312 - 10/10/2019

WARNING LETTER

Rooted Apothecary LLC

MARCS-CMS 585312 - OCTOBER 10, 2019



3 More Warning Letters

Warning Letters

About Warning and Close-Out Letters Delivery Method: Via Overnight Delivery

Recipient:

Mr. Ryan P. Collett and Mr. Cade Copeland Rooted Apothecary LLC 3958 Recreation Lane Naples, FL 34116 United States

Issuing Office:

Center for Drug Evaluation and Research
10903 New Hampshire Avenue
Silver Spring, MD 20993
United States

WARNING LETTER

October 10, 2019

RE: 585312

Dear Mr. Collett and Mr. Copeland:

This letter is to advise you that the Food and Drug Administration (FDA or Agency) reviewed your website at the Internet address www.rootedapoth.com In July 2019 and has determined that you take orders there for various products that claim to contain cannabidiol (CBD). Your products, "Teeth/TMJ — Essential Oil + CBD Infusion" and "Ears — Essential Oil + CBD Infusion are roll-on products that you sell for topical application in adults and children. Other examples of products that you sell, which claim to

contain CBD, include "Hemp Capsules, 750 mg," "Hemp Infused Body Butter," and "Hemp Oil" On your website, these products are also referred to as "CBD Capsules, 750 mg," "CBD Body Butter," and "CBD Oil," respectively. We also reviewed your social media website at

https://www.facebook.com/rootedapoth/_which directs consumers to your website http://www.rootedapoth.com Color to purchase your products. FDA has determined that your "Teeth/TMJ — Essential Oil + CBD Infusion," "Ears — Essential Oil + CBD Infusion," "Hemp Capsules, 750 mg," "Hemp Infused Body Butter," and "Hemp Oil" products are unapproved new drugs sold in violation of sections 505(a) and 301(d) of the Federal Food, Drug, and Cosmetic Act (the FD&C Act), 21 U.S.C. 355(a) and 331(d). Furthermore, these products are misbranded drugs under section 502(f)(1) of the FD&C Act, 21 U.S.C. 352(f)(1). As explained further below, introducing or delivering these products introduction into interstate commerce for such uses violates the FD&C Act. You can find the FD&C Act and FDA regulations through links on FDA's home page at www.fda.gov. In addition, the Federal Trade Commission has reviewed your website for potential violations of Sections 5(a) and 12 of the FTC Act, 15 U.S.C. §§ 45(a) and 52.

As FDA stated in an announcement regarding a warning letter on July 23, 2019, "while we recognize the potential opportunities and significant interest in drug products containing cannabis and cannabis-derived compounds like CBD, protecting and promoting public health remains our top priority. The Agency continues to be concerned about the proliferation of products asserting to contain CBD that are marketed for therapeutic or medical uses without having been reviewed for safety and effectiveness by the FDA as is required by law and to protect the public health. There are many unanswered questions



Content current as of:

Regulated Product(s)

10/22/2019

US State requirements





States' influence on sunscreens

- Based on environmental concerns
- Issues quickly escalated
- Proposed legislation multiplied
- Global Warming?
- Worldwide effect from a state with 1.4 million people



Hawaii's sunscreen ingredient ban

- Oxybenzone and Octinoxate containing products banned from sale
- Bleaching of coral reef
- Global warming symptom?
- Irrespective of FDA's human health responsibilities
- Another environmental issue for the industry
- Short response time vs. scientific data





California





Why California?

- Fifth largest economy in the world
- 39+ million population
- Unique environmental issues
- Long history of activism





Air Quality







California Air Resources Board (CARB)

- Federal Environmental Protection Agency (US EPA) created requirements for air quality in California
- Air quality requirements not met
- California created Air Resources Board (CARB)
- Goals





CARB

- How to measure air quality?
- How to measure improvement?
- How to determine multiple point-sources
- Cars?
- Industrial?
- Consumer products?





CARB- Emissions and next steps

- Goal of reducing emissions that contribute to smog
- Calculate "tons per day" of emissions based on sales numbers and testing for VOCs in products
- Cosmetics/Personal care involved due to tonnages
- Continuing to monitor all sources of emissions, new categories





Currently regulated categories (effective date 1994)

- Original effective date: October 21, 1991
- Amendments: 1993, 1996, 1997, 1998, 1999, 2000, 2001, 2005, 2007, 2009, 2010, 2011, 2013, 2015.
- Regulated in three separate pieces:
 - Antiperspirants/Deodorants
 - Consumer Products (other)
 - Aerosol Coating Products
 - Alternative Control Plan
 - Hairspray Credit Program (repealed)



CARB- Emissions and next steps

- Product formula surveys for 2013-2014-2015
- Multitude of diverse product categories surveyed
 - Charcoal Lighter fluid
 - Paint remover
 - Automobile brake cleaner
 - Scented candles
 - Insecticide
 - Floor Polish
 - Hairspray
 - Hand sanitizers





Restrictions by product categories

Initially scrutinized large quantity Consumer Product contributors

- Antiperspirants/Deodorants
- Hairsprays
- Shaving Cream

Multiple deadlines from 1994 - present





Proposed Final categories for further restrictions

CATEGORY	Existing VOC limit	Proposed VOC standard 1/1/2023	Proposed VOC standard 1/1/2027
Manual Aerosol Air Freshener	20%/30%	10%	5%
Hair Finishing Spray	55%	50%	45%
No-Rinse Shampoo	None	50%	45%
Personal Fragrance Products (≤ 20% fragrance)	75%	65%	50%
Crawling Bug Insecticide (aerosol)	15%	10%	6%
Charcoal Lighter material	0.02 lb/start	0.014 lb/start	0.014% lb/start
Sunset 2% Fragrance Exemption	2% exemption	No change	No exemption



Additional possibilities for 2031

- Anti-microbial Dry Hand Wash
- Aerosol Sunscreen
- Mouthwash/rinse
- Antiperspirants
- Many Household Products





Formulation challenges

- Aerosols- first VOCs regulated in 1994
 - Antiperspirants/Deodorants
 - Shaving Creams
 - Aerosol hairsprays
- Propellants and Alcohol
- Most companies used newer, more expensive
 - HFC-152a
 - Dimethyl Ether
- Regrettable substitution?
- Challenges for International formulations





Next challenge? Greenhouse Gases

Products using HFC-152a

- Examine available technologies
 - Compressed gas
 - New propellants
 - Technical challenges, costs, availability
- Goal to eliminate HFCs "long term" = 2035





OEHHA and Proposition 65

- Office of Environmental Health Hazard Assessment (OEHHA)
- Safe Drinking Water and Toxic Enforcement act of 1986
- "Right to Know" legislation
- Warning of Carcinogens and Reproductive Toxins
- Consumer point-of-purchase disclosure law
- Problematic for many industries
- Penalties can be costly, Enforceable by "private citizens"
- Continually updated (last update September 13, 2019)





OEHHA and Proposition 65

- List continually updated
- Science vs. legislative process
- Safe Harbor limits
 - No observable effect level evaluation
 - No significant risk level review
- Not addressed upon first listing



Proposition 65 Developments



⚠ WARNING: This product can expose you to Lead, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

WARNING: This product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm. WARNING: This product can expose you to chemicals including [name of one or more chemicals], which is [are] known to the State of California to cause cancer, and [name of one or more chemicals], which is [are] known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P55Warnings.ca.gov.





Proposition 65 Chemicals

- 911 listed chemicals/groups
- Even if not intentionally added to the product
- Biggest challenges:
 - Lead
 - Diethanolamine, Cocamide DEA
 - Phthalates
- https://oehha.ca.gov/media/downloads/proposition-65//p65list091319.pdf



Proposition 65 Scientific Approach?

- Carcinogen identification Committee
- Reproductive Toxicant Identification Committee
- Authoritative Bodies
 - US Environmental Protection Agency (EPA)
 - International Agency for Research on Cancer (WHO/IARC)
 - US FDA
 - National Institute for Occupational Safety and Health (NIOSH)
 - National Toxicology Program (NTP) of the US Department of Health





Green Chemistry- Safer Consumer Products

- Department of Toxic Substance Control
- Determine Candidate Chemicals
- Contained in Priority Products
- Industry provides Alternatives Assessment
- Determine if chemical can be eliminated

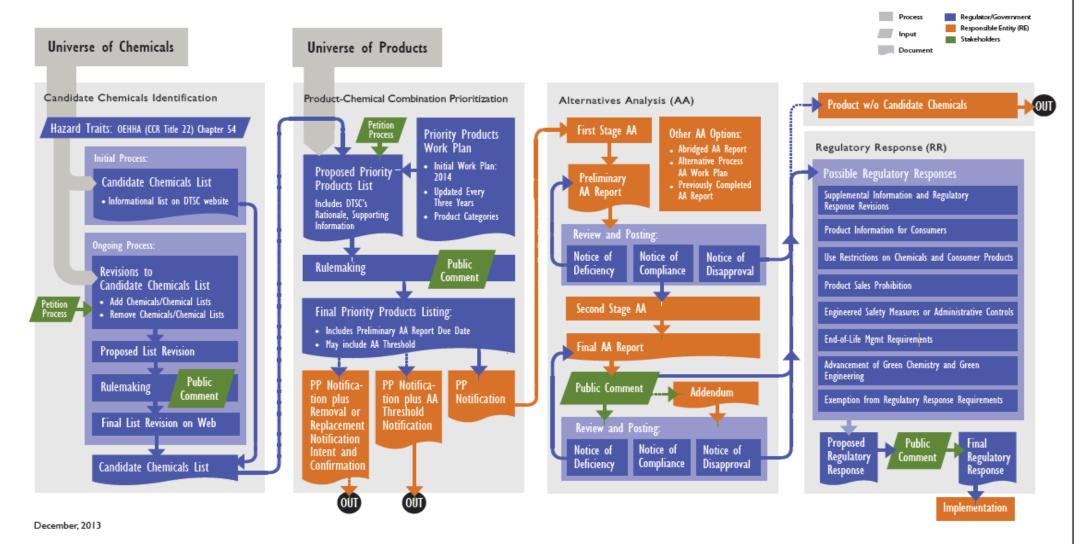






Regulations for Safer Consumer Products

ARTICLE 14, CHAPTER 6.5, DIVISION 20 OF THE HEALTH & SAFETY CODE CHAPTER 55, DIVISION 4.5, TITLE 22, CALIFORNIA CODE OF REGULATIONS (CCR) DRAFT REGULATORY FLOW CHART





Safer Consumer Products program

- Children's Foam-Padded Sleeping Products with TDCPP or TCEP (2017)
- Spray Polyurethane Foam Systems with unreacted Methylene Diphenyl Diisocyanates (MDI) (2018)
- Paint or Varnish Strippers with Methylene Chloride (2019)
- Expected:
 - Nail products (Toluene, Formaldehyde)
 - Hair straightening products (Formaldehyde)





Safer Consumer Products- Candidate Chemicals

- Candidate Chemicals determines from Authoritative Lists ("a list of lists")
- 24 lists generated by government and independent agencies, like:
 - California's **Proposition 65** list
 - Regulation (EC) 1272/2008 (CLP) Carcinogens, Mutagens, Repro Toxins, Respiratory Sensitisers
 - Regulation (EC) 1907/2006 (REACH) Candidate list of Substances of Very High Concern (SVHCs) for Endocrine Disruptors, Neurotoxicants, Carcinogens
 - Many others





Single Use Packaging

- Hotel Amenities sized packaging now forbidden, signed into law October 9
 - Deadline: January 1, 2023 for hotels with more than 50 rooms
 - January 1, 2024 for hotels with 50 rooms or less
- Further legislation to appear on the ballot for citizens to vote for ban of
 - Polystyrene containers for Food and Beverage
 - Single-use packaging





Animal Testing Ban

- California- first state to ban animal testing
- Does not apply if required by law
- Anti-caries testing, bovine x-vivo





Ingredients with 1,4-Dioxane

- California Department of Toxic Substances Control (DTSC)
- 1,4-Dioxane in waste water above levels set by the US EPA
- Sources from industrial sites and household waste run-off
- Ethoxylated ingredients
 - Ethoxylated surfactants (ex: Sodium Laureth Sulfate)
 - Polyethylene Glycols (ex: PEG-100 Stearate)
- Comments from Industry groups
 - Personal Care Products Council
 - American Cleaning Institute











- Cosmetic products in the EU can fall into several categories, regulated by Health Canada
 - Cosmetics requiring notification
 - Category IV Drugs ("OTC" Drugs) requiring a Drug Identification Number (DIN)
 - Natural Health Products (NHPs) requiring a Natural Product Number (NPN)



Cosmetics in Canada

- Forbidden and restricted ingredients
- Some overlap with 1223/2009 Annexes
- Cannabis status still being clarified:
 - Medicinal uses are regulated outside of Cosmetics
 - Cosmetics with Hemp are allowable with 10µg/g THC
 - Hemp seed oil and Hemp protein allowed, however
 - Cannabinoids are not allowed, though Hemp contains CBD





The Cannabis Regulations

- October 17, 2019 proposal updated to include Cannabis Topicals category
 - 1000 mg THC per package maximum
 - Cannot contain nicotine or alcohol
 - For use only on skin, hair and nails
 - Not for use in eyes or on damaged skin
 - Non-decorative and child-resistant packaging required
 - Labeling must show standardized cannabis symbol for THC-containing products
 - Possession limit determined by dried cannabis equivalency
 - NO health claims allowed





Canada Non-prescription "DIN" Drugs

- "Monographed" Non-prescription Drugs requiring a Drug Identification Number (DIN)
- Similar to US Over-the-counter categories
 - Acne products
 - Sunscreens
 - Medicated Skin Care
 - Diaper Rash products
 - Anti-dandruff products
 - Antiseptic skin cleansers
 - Athlete's Foot Treatments
- Need file submission and product approval prior to importation
- Assigned Samples taken from <u>each shipment</u> of drugs for assay
- Beta testing of system to illustrate compliance





Canada Non-Prescription Drugs Natural Health Products (NHPs)

- System originally intended for Nutritional supplements whose effects were not well defined or regulated
- Defined by product claims/purpose and ingredient origins
- Each monographed category illustrates which ingredients match
- Ex: Includes sunscreens with physical sunblocks only





Canada Non-prescription Drug categories

Acne products

- Category 1 ingredients (Natural Health Products)
 - Salicylic acid
 - Sulfur
 - Resorcinol
 - Resorcinol monoacetate
- Category 2 ingredients (Drug Identification Number category)
 - Benzoyl Peroxide





CANADIAN SPF LEGALIZATION

- Natural Health SPF Ingredients
 - Titanium Dioxide
 - Zinc Oxide
 - Para-aminobenzoic acid
- Submit for Natural Product Number (NPN)
 - Designated Party Authorization Form
 - Finished Product Specification
 - Product License Application Form
 - Finished Product Specification Form
 - Monograph attestation Form





CANADIAN SPF LEGALIZATION

Health Canada Drug Ingredients



ACTIVE INGREDIENTS	ACTIVE INGREDIENTS	
Avobenzone	SULISOBENZONE	
ENSULIZOLE	DROMETRIZOLETRISILOXANE	
HOMOSALATE	Enzacamene	
MERADIMATE	Padomate-O	
OCTINOXATE	Terephthalylidene dicamphor sulfonic acid	
OCTISALATE	Cinoxate	
OCTOCRYLENE	Diethanolamine methoxycinnamate	
OXYBENZONE	Dioxybenzone	
	Triethanolamine salicylate	



CANADIAN SPF LEGALIZATION

Health Canada submission for Drug Identification Number (DIN)

Drug Master File – aligns with USA FDA requirements

- Require Canadian Licensed Importer
- Application include Canadian Importer
- Application included Drug Application Fee
- Application include tests (Drug Master File)





"Clean Beauty"

- What is it?
- Marketing claims based in theories
- One ingredient or more?
- Retailers' standards





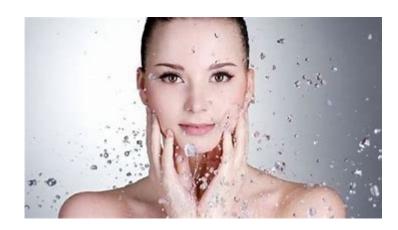
Clean Beauty?

- "Clean beauty is quite intense: It means a non-toxic product that is made without a long, ever-evolving list of ingredients linked to harmful health effects." www.goop.com
- "Safe for people and the planet, clean means that a beauty product should have considered human and environmental health, using a nontoxic element as a baseline and plant-based ingredients for active results."
 www.harpersbazaar.com
- "We use certified organic ingredients, Ecocert approved preservatives, no petrochemicals or silicones, and no potential carcinogens, endocrine disruptors or ingredients with contaminants..." (Adam Kielbasa/The Organic Pharmacy) www.glamourmagazine.co.uk



Commonly mentioned in Clean Beauty

- Parabens (specific or category)
- Sulfates
- Phthalates (category)
- PEGs
- "Chemical" sunscreens
- Synthetic fragrances
- Triclosan
- Silicones
- BHT
- BHA





Retailers' standards

- Adopting "Clean Beauty" individual standards
- US/Canadian retail store chains all have differing standards
 - Sephora
 - Walmart
 - Walgreens Boots
 - Target
 - Whole Foods
- Standards for undesirable ingredients now can have a quick identity with consumers















www.intlcosmetics.com

