Sunscreen Monograph Proposed Rule

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- The opinions and views in this presentation are my own and are not intended to convey official US FDA policy
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- I do not have any financial interest or conflict of interest with any pharmaceutical company

Drug or Cosmetic??

Drug FD&C Act, Section 201(g)(1)

Articles intended for disease:

- Diagnosis
- Cure
- Mitigation
- Treatment
- Prevention
- **Intended to Affect the Structure or Any Function of the Body of Humans or Animals**

Cosmetic FD&C Act, Section 201(i)

Articles intended for:

- Cleansing
- Beautifying
- Promoting Attractiveness
- Altering Appearance

Products meeting both definitions must meet requirements for BOTH drugs and cosmetics

Nonprescription Drugs

Nonprescription drug products generally have these characteristics:

- Can be adequately labeled such that
  - The consumer can self-diagnose, self-treat, and self-manage the condition being treated
  - No health practitioner is needed for the safe and effective use of the product
- Drug has low potential for misuse and abuse
- Safety margin is such that the benefits of over-the-counter (OTC) availability outweigh the risks

Two Regulatory Pathways

New Drug Application	Over The Counter (OTC) Monograph
Product specific (including formulation and labeling)	Therapeutic category-specific regulations (product can contain permissible active ingredients in a monograph compliant formulation)
Certain subsequent labeling and formulation changes require prior approval through supplemental application	Changes do not require approval when in compliance with monograph
Confidentiality during the approval process	Public process for monograph changes
Safety and effectiveness testing required for each individual product	Safety and effectiveness testing of each individual product not required if compliant with monograph
Application submitted for premarket approval	No FDA product-specific premarket application or preapproval
Application fees (i.e., user fees)	No user fees
Adverse event and other reporting requirements	Limited reporting requirements (serious adverse events only)
Comply with good manufacturing practices	Comply with good manufacturing practices
A period of market exclusivity (if certain conditions are met)	No market exclusivity

New Drug Application or Monograph?

Current OTC Drug Regulation

- OTC drug review established in 1972
  - Implemented 1962 Congressional directive to review the safety and effectiveness of drugs
- Rather than review hundreds of thousands of individual OTC products, FDA began issuing monographs establishing conditions under which OTC drugs are generally recognized as safe and effective (GRASE)
  - Monographs are “rulebooks” establishing indications, strengths, dosing information, warnings, etc., for OTC products containing the covered ingredients to be GRASE
  - Each monograph generally provides for the marketing of hundreds or thousands of products
  - Products meeting the specifications of a monograph are not required to be reviewed by FDA before marketing
- The monographs cover some 800 active ingredients for over 1,400 different uses, authorizing over 100,000 products
- Each monograph is established by regulation
  - There are >150 final rules related to OTC drugs
  - Approximately 88 ongoing rulemakings in 26 broad therapeutic categories

FDA Proposed Rule: Sunscreens

- Proposed rule issued February 21, 2019
  - Comment period closed June 27, 2019: Docket No. FDA-1978-N-0018
- Describes conditions under which OTC sunscreen monograph products are generally recognized as safe and effective
- Part of ongoing effort to ensure sunscreens are safe and effective for regular, life-long use
- Goal to improve the quality, safety, and efficacy of sunscreens
- FDA will continue to work with industry and stakeholders to make sure consumers have access to safe and effective sunscreens

Key Elements of the Proposed Rule

- GRASE Status of Ingredients
- Dosage Forms
- Sun Protection Factor (SPF) and Broad Spectrum
- Sunscreen-Insect Repellant Combinations
- Labeling
- Final Formulation Testing and Record Keeping

Proposed GRASE Status for Sunscreen Active Ingredients

GRASE* for use in sunscreens	Not GRASE** for use in sunscreens	***Insufficient data for use in sunscreens
Zinc oxide and titanium dioxide	Aminobenzoic acid (PABA) and trolamine salicylate	Cinoxate, dioxybenzone, ensulizole, homosalate, meradimate, octinoxate, octisalate, octocrylene, padimate O, sulisobenzone, oxybenzone, avobenzone

*GRASE= Generally Recognized as Safe and Effective **These ingredients are not currently marketed. ***For those ingredients in the "insufficient data" category, FDA proposes that it needs additional data to determine that sunscreens with these ingredients would be GRASE.

- Request for additional data does not mean FDA has concluded that 12 ingredients are unsafe
- **Consumers should continue to use broad spectrum sunscreens with SPF 15 or higher in conjunction with other sun protective measures to reduce the risk of sunburn, skin cancer, and early skin aging caused by the sun**

Sunscreen Safety Data Framework

- Rationale
  - Changing patterns of use
    - Used as preventive drugs, over a lifetime period of exposure, in a population spanning all age groups
  - Evolving scientific knowledge
    - Different formulations with greater SPF and broad-spectrum protection
    - Ingredients may be absorbed through the skin→

      Need to consider systemic effects (carcinogenicity, endocrine, reproductive)
- FDA's proposed safety framework supported by an independent Advisory Committee as a good starting point (September 2014)

Safety Data Requested for Sunscreens

Clinical Studies	Nonclinical Studies
Human Irritation and Sensitization study whether the ingredient causes skin irritation or an allergic reaction	**Dermal Carcinogenicity** study the long-term effect of dermal administration of the ingredient to see if it causes tumors of the skin or the rest of the body
Human Photosafety study whether the ingredient causes skin irritation or an allergic reaction when exposed to light	**Systemic Carcinogenicity** study the long-term effect of the ingredient in the body to see if it causes tumors
Human Absorption/Maximal Usage Trial (MUsT) evaluate whether and the extent to which an ingredient is absorbed into the body	**Developmental and Reproductive Toxicity (DART)** study developmental and reproductive risks, which can include endocrine effects
Pediatric Considerations additional studies may be needed to ensure that a sunscreen active ingredient would be GRASE for use in pediatric populations if results from other studies suggest a narrow margin of safety	**Toxicokinetic** study whether and to what extent the ingredient is absorbed in animals to help calculate a safety margin for human use

Sunscreen Dosage Forms Proposed GRASE

- Sunscreen oils, lotions, creams, gels, butters, pastes, ointments, and sticks are proposed as GRASE
- Sunscreen sprays proposed as GRASE subject to testing
  - Particle size restrictions to avoid inhalational toxicity
  - Flammability testing (product flash point and drying time testing)
  - Related safety labeling requirements

Other Sunscreen Dosage Forms

- Sunscreen powders are proposed to need more data to support GRASE status
- All other dosage forms – including wipes, towelettes, body washes, and shampoos – are not eligible for inclusion in the monograph

New Proposed Sun Protection Factor (SPF) Requirements

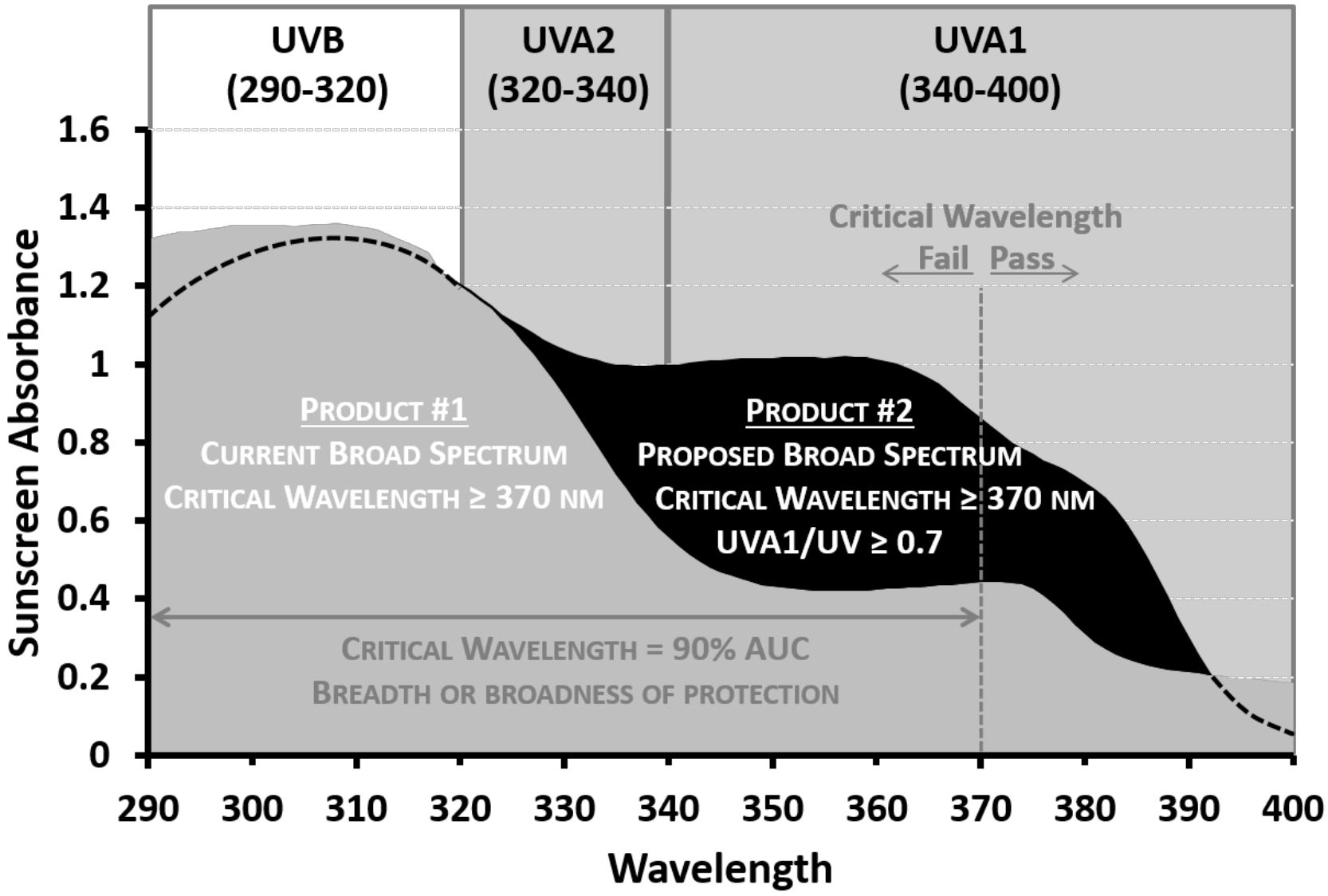
- Raise maximum proposed labeled SPF from SPF 50+ to SPF 60+
- Permit marketing of sunscreen products formulated up to SPF 80
- SPF labeling with lowest number in a range of tested results

Determined SPF	Labeled SPF	Determined SPF	Labeled SPF
2-14	Determined SPF	30-39	30
15-19	15	40-49	40
20-24	20	50-59	50
25-29	15	60-80	60+

New Proposed Broad Spectrum Requirements

- Require any sunscreen SPF 15 or higher to be broad spectrum
- Require for all broad spectrum products SPF 15 and above, as SPF increases, broad spectrum protection increases
- Require that broad spectrum products provide adequate protection against UVA
  - UV absorbance critical wavelength of 370 nm (90% AUC)
  - UVA1/UV ratio at least 0.7

Proposed Broad Spectrum Criteria



Sunscreen-Insect Repellant Combination Products

- Proposed to be not GRASE
  - Incompatibilities between instructions for use for sunscreens and insect repellents prevent these products from being labeled in a manner that sufficiently ensures safe and effective use of the sunscreen component

- Data suggest that combining some sunscreen active ingredients with some insecticides may increase absorption of one or both components
- CDC recommends that if applying both sunscreen and insect repellant, apply sunscreen first and insect repellant second

New Proposed Label Requirements

- Include alphabetical listing of active ingredients on the front panel
- Require sunscreens with an SPF below 15 to include “See Skin Cancer/Skin Aging alert” on the front panel
- Require font and placement changes to ensure SPF, broad spectrum, and water resistance statements stand out

Final Formulation Testing and Record Keeping

Clarifies expectations for testing and record keeping by entities that conduct sunscreen testing (e.g. SPF, broad spectrum, water resistance); proposes to require

- Industry keep records of sunscreen formulation testing and clarify that records are subject to FDA inspection
- Records of final formulation testing be maintained for 1 year after the product expiry (or 3 years after distribution of last lot labeled in reliance on that testing)
- Clarify processes to ensure testing protects human subjects and produces reliable results

Next Steps for Sunscreens

- >15,000 comments received on the proposed rule
- FDA working to review and consider all comments before issuing a final rule
- FDA anticipates an implementation period after rule is finalized
- Requests received to defer some ingredients from final rulemaking to allow time for completion of studies necessary to fill the data gaps identified in the Proposed Rule
- FDA anticipates deferring rulemaking for ingredients with a satisfactory commitment to address data gaps for one year, subject to renewal
- FDA will continue to work with industry and stakeholders to make sure consumers have access to safe and effective sunscreens

Additional Resources

- Sunscreen proposed rule: https://www.federalregister.gov/d/2019-03019
- Press Release: https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm631736.htm
- Consumer Update: https://www.fda.gov/ForConsumers/ConsumerUpdates/ucm049090.htm
- Sunscreen landing page: https://www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/UnderstandingOver-the-CounterMedicines/ucm239463.htm
- Sunscreen enforcement policy guidance: https://www.fda.gov/ucm/groups/fdagov-public/@fdagov-drugs-gen/documents/document/ucm259001.pdf