

Technical Project Lead (TPL) Review of Exemption Requests

New Products Subject of this Review ¹	
STNs	EX0002442.PD1 and EX0002443.PD1
Common Attributes	
Submission date	September 27, 2021
Receipt date	September 27, 2021
Applicant	Fumari Inc.
Product manufacturer	Fumari Inc.
Product category	Waterpipe Tobacco Products
Product subcategory	Waterpipe Tobacco Filler
Cross-Referenced Submissions	
All STNs	(b)(4)
Supporting FDA Memoranda Relied Upon in this Review	
All STNs	Internal Memo: Social Science Approach to changes from a non-characterizing flavor to a characterizing flavor in Exemption Requests (EX REQs) and Substantial Equivalence (SE) Reports for tobacco products (September 21, 2020)
Recommendation	
Issue Exempt (EX) orders for the new tobacco products subject of this review.	

Technical Project Lead (TPL):

Digitally signed by Jikun Liu -S
 Date: 2022.09.26 10:39:12 -04'00'

Jikun Liu, Ph.D.
 Chemistry Team Supervisor
 Division of Product Science

Signatory Decision:

Concur with TPL recommendation and basis of recommendation

Todd L. Cecil -S Digitally signed by Todd L. Cecil -S
 Date: 2022.09.26 12:44:18 -04'00'

Todd L. Cecil, Ph.D.
 Acting Director
 Office of Science

¹ Product details, amendments, and dates provided in the Appendix. EX means exemption (request) from substantial equivalence. STN means submission tracking number.

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1. BACKGROUND

1.1. NEW AND ORIGINAL PRODUCTS

The applicant submitted information for the new and original products listed in detail in the Appendix.

1.2. REGULATORY ACTIVITY

See appendices for products.

1.3. SCOPE OF REVIEW

This review captures all compliance, regulatory, and scientific reviews completed for the new products that are the subject of this review.

Table 1. Disciplines reviewed

Discipline	Cycle 1	
	Reviewer(s)	Review Date
Regulatory	Rodney N. Hammond	10/5/2021
Chemistry	Olufisayo Salako	9/13/2022
Environmental Science	William Brenner	9/13/2022

2. COMPLIANCE REVIEW

The Office of Compliance and Enforcement (OCE) completed a review to determine whether the applicant established that the original products are pre-existing products (i.e., were commercially marketed in the United States as of February 15, 2007).² The OCE review dated September 12, 2022 concludes that the evidence submitted by the applicant is adequate to demonstrate the original products are pre-existing products.

Therefore, the original products are eligible for modification under the Exemption Request pathway.³

3. TOBACCO ADDITIVE MODIFICATION

The applicant claims that the modifications of the original products compared to the corresponding new products are the result of:

- adding an additive (b)(4) in all the EX Requests
- decreasing the quantity of an existing additive (b)(4) in all the EX Requests

² On August 19, 2022, CTP updated the term “grandfathered tobacco product” to “pre-existing tobacco product” on all the Center’s websites and systems. In this review, “grandfathered product” is substituted with “pre-existing product” to reflect this change.

³ Any product that can be sold under the FD&C Act (e.g., legally marketed in the United States) is eligible for modification under the Exemption Request pathway.

4. SCIENTIFIC REVIEW

The review finds these modified ingredients (see Section 3) are additives because their intended use may reasonably be expected to result, directly or indirectly, in their becoming a component or otherwise affecting the characteristics of the products. The review concludes that the modifications are minor modifications of a product in accordance with section 905(j)(3)(A)(i) of the FD&C Act.

5. ENVIRONMENTAL DECISION

A finding of no significant impact (FONSI) was signed by Luis Valerio, Ph.D. on September 19, 2022. The FONSI was supported by an environmental assessment prepared by FDA on September 19, 2022.

6. CONCLUSION AND RECOMMENDATION

I concur with the conclusion of the scientific review that these modifications (see Section 3) are a minor modification of a product in accordance with section 905(j)(3)(A)(i) of the FD&C Act. I concur that the modified ingredients are “additives” as defined in section 900(1) of the FD&C Act. In addition, it is my conclusion that, consistent with section 905(j)(3)(A)(ii) of the FD&C Act, an SE Report is not necessary to ensure that permitting the new products to be marketed would be appropriate for the protection of the public health.

The applicant proposed to decrease the amount of flavor additive (b)(4) # (b)(4) ((b)(4)) in the original products and add flavor additive (b)(4) (b)(4) in the new products for EX0002442.PD1 and EX0002443.PD1. The applicant referenced tobacco product master file (TPMF) (b)(4) and (b)(4) for detailed information about the ingredient components of (b)(4) (b)(4) and (b)(4) respectively. The chemistry reviews for (b)(4) and (b)(4) (date: September 1, 2022; reviewer: Olufisayo Salako) indicate that the ingredient information is sufficient with respect to chemistry.

Complex flavor ingredients in tobacco products may contain various individual chemical substances that may be thermally decomposed to form and release to mainstream smoke harmful and potentially harmful constituents (HPHCs) such as carbonyls (e.g., acetaldehyde, formaldehyde, acrolein) and volatile organic compounds (e.g., benzene, acrylonitrile, 1,3-butadiene).^{4,5,6,7} For EX0002442.PD1 and EX0002443.PD1, the decrease in (b)(4) (↓ (b)(4) mg/g) for the new products compared to the original products and the addition of (b)(4) (b)(4) (↑ (b)(4) mg/g) to the new products each constitutes 2% of the net weight of total tobacco ingredients for the new products. From a chemistry perspective, the

⁴ Behar RZ, Luo W, McWhirter KJ, Pankow JF, Talbot P. Analytical and toxicological evaluation of flavor chemicals in electronic cigarette refill fluids. *Scientific reports*. 2018;8(1):8288-8288

⁵ Czégény, ZS, et al. “Thermal Behaviour of Selected Flavour Ingredients and Additives under Simulated Cigarette Combustion and Tobacco Heating Conditions.” *Journal of Analytical and Applied Pyrolysis*, vol. 121, Sept. 2016, pp. 190–204. ScienceDirect, <https://doi.org/10.1016/j.jaap.2016.07.020>.

⁶ Vreeke S, Peyton DH and Strongin RM. “Triacetin Enhances Levels of Acrolein, Formaldehyde Hemiacetals, and Acetaldehyde in Electronic Cigarette Aerosols.” *ACS omega*. 3.7 (2018): 7165–7170. Web.

⁷ Heck JD. A review and assessment of menthol employed as a cigarette flavoring ingredient. *Food Chem Toxicol*. 2010 Jan;48 Suppl 2:S1-38. doi: 10.1016/j.fct.2009.11.002. PMID: 20113860.

quantities of the flavor additive modifications are small and not expected to measurably increase the smoke HPHC yields of the new products compared to the original products. Additionally, research suggests that enjoyment of flavor has been associated with initiation and continued use of tobacco products (e.g., waterpipe tobacco products), particularly among youth and young adults.^{8,9} However, there are no changes from a non-characterizing flavor to a characterizing flavor in the new and original products based on the identifying information stated by the applicant in these applications. Therefore, these differences in characterizing flavors are acceptable from a social science perspective at this time.¹⁰

Lastly, I find that an exemption for this modification is otherwise appropriate as required by section 905(j)(3)(A)(iii) of the FD&C Act. Therefore, the new products should be found exempt from the requirements of substantial equivalence under section 910(a)(3)(A) of the FD&C Act.

The original products are eligible for modification through the Exemption Request pathway because they can be legally marketed in the United States. The original products are pre-existing products; i.e., were commercially marketed in the United States as of February 15, 2007.

FDA has examined the environmental effects of finding the new products exempt and made a finding of no significant impact.

An exempt order should be issued for the new products, as identified on the cover page of this review.

⁸ Couch ET, Darius EF, Walsh MM and Chaffee BW. ST product characteristics and relationships with perceptions and behaviors among rural adolescent males: a qualitative study. *Health Educ Res.* 2017;32(6):537-545.

⁹ Ben Taleb Z, Breland A, Bahelah R, Kalan ME, Vargas-Rivera M, Jaber R, Eissenberg T and Maziak W. Flavored Versus Nonflavored Waterpipe Tobacco: A Comparison of Toxicant Exposure, Puff Topography, Subjective Experiences, and Harm Perceptions. *Nicotine Tob Res.* 2019;21(9):1213-1219.

¹⁰ CTP internal memo: Social science approach to changes from a non-characterizing flavor to a characterizing flavor in Exemption Request (EX REQs) and SE Reports (SE) Reports for tobacco products. September 21, 2020.

7. APPENDICES**Appendix A. New and original products^{11,12}**

Common Attributes		
Submission date	September 27, 2021	
Receipt date	September 27, 2021	
Applicant	Fumari Inc.	
Product manufacturer	Fumari Inc.	
Product category	Waterpipe Tobacco Products	
Product subcategory	Waterpipe Tobacco Filler	
Attributes	New Product	Original Product
STN	EX0002442.PD1	GF1908887
Product Name	Fumari Watermelon with Mint Hookah Tobacco - 50 grams	Fumari Watermelon Hookah Tobacco - 50 grams
Eligibility Status	Not-applicable	Pre-existing
Package Type	Pouch	Pouch
Package Quantity	50 Grams	50 Grams
Characterizing Flavor	Watermelon and Mint	Watermelon
Tobacco Cut Size	1/4 inch Strips	1/4 inch Strips
Tobacco Moisture	12.50%	12.50%
Product modifications	Addition/Deletion of tobacco additives: <ul style="list-style-type: none"> • Addition of complex flavor ingredient (b)(4) Target: (b)(4) mg/50 g or (b)(4) mg/g Increasing/Decreasing the quantity of existing tobacco additives: <ul style="list-style-type: none"> • Decrease in the quantity of complex flavor ingredient (b)(4) by (b)(4) mg/50 g or (b)(4) mg/g 	
STN	EX0002443.PD1	GF1702438
Product Name	Fumari Watermelon with Mint Hookah Tobacco - 100 grams	Fumari Watermelon Hookah Tobacco - 100 grams
Eligibility status	Not-applicable	Pre-existing
Package Type	Pouch	Pouch
Package Quantity	100 Grams	100 Grams
Characterizing Flavor	Watermelon and Mint	Watermelon
Tobacco Cut Size	1/4 inch Strips	1/4 inch Strips
Tobacco Moisture	12.50%	12.50%
Product modifications	Addition/Deletion of tobacco additives: <ul style="list-style-type: none"> • Addition of complex flavor ingredient (b)(4) Target: (b)(4) mg/100 g or (b)(4) mg/g Increasing/Decreasing the quantity of existing tobacco additives:	

¹¹ Properties to uniquely identify the new tobacco products were provided by the applicant as of the date of this review, and not confirmed by FDA.

¹² Brand/sub-brand or other commercial name used in commercial distribution

	<ul style="list-style-type: none">Decrease in the quantity of complex flavor ingredient (b)(4) (b)(4) by (b)(4) mg/100 g or (b)(4) mg/g
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