Wave 2 Data Supplement

Mallow

Phytosteryl Glutamates

EXPERT PANEL MEETING
DECEMBER 5-6, 2022

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Memorandum

To: Expert Panel for Cosmetic Ingredient Safety Members and Liaisons
From: Preethi Raj, Senior Scientific Writer/Analyst, CIR
Date: November 29, 2022
Subject: Safety Assessment of *Malva sylvestris* (Mallow)-Derived Ingredients as Used in Cosmetics – Wave 2

The Council has provided CIR with unpublished data on Malva Sylvestris (Mallow) Flower Extract, which are attached herein for the Panel's review (*data_Mallow_Wave2_122022*). This submission includes composition, method of manufacture, and impurities, as well as genotoxicity data, the last of which was previously not in the report. Additionally, summary details for phototoxicity and dermal irritation and sensitization data with negative results for the Malva Sylvestris (Mallow) Flower Extract were also submitted.

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Personal Care Products Council
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Memorandum

TO: Bart Heldreth, Ph.D.
Executive Director - Cosmetic Ingredient Review

FROM: Carol Eisenmann, Ph.D.
Personal Care Products Council

DATE: October 12, 2022

SUBJECT: Malva Sylvestris (Mallow) Flower Extract

Anonymous. 2022. Summary Information - Malva Sylvestris (Mallow) Flower Extract.

November 2022

Summary Information - Malva Sylvestris (Mallow) Flower Extract

1. Chemistry information

	Mallow Flower Extract
Composition	Tannins and Anthocyans
The method of manufacture	Dried raw material⇒extract with 50 vol% ethanolic solution ⇒sedimentation⇒filtrate⇒adjustment⇒packaging
Impurities	Heavy metals: not more than 20 ppm Arsenic: not more than 2 ppm

	Mallow Flower Extract BG
Composition	Tannins and Anthocyans
The method of manufacture	Dried raw material⇒extract with 50 vol% 1,3-butylene glycolic solution⇒sedimentation⇒filtrate⇒adjustment⇒packaging
Impurities	Heavy metals: not more than 20 ppm Arsenic: not more than 2 ppm

	Mallow Flower Extract LA
Composition	Tannins, Saccharides and Anthocyans
The method of manufacture	Dried raw material⇒extract with 30 vol% ethanolic solution ⇒sedimentation⇒filtrate⇒adjustment⇒packaging
Impurities	Heavy metals: not more than 20 ppm Arsenic: not more than 2 ppm

	Mallow Flower Extract SQ
Composition	Essential oil
The method of manufacture	Dried raw material⇒extract with 30 vol% ethanolic solution ⇒concentration⇒dissolve in squalane⇒sedimentation⇒filtrate ⇒adjustment⇒packaging
Impurities	Heavy metals: not more than 10 ppm Arsenic: not more than 2 ppm

	MALLOW FLOWER MOISTURE
Composition	Tannins and Anthocyans
The method of manufacture	Dried raw material⇒extract with water⇒concentration ⇒dissolve in 30 vol% 1,3-butylene glycolic solution

	⇒sedimentation⇒filtrate⇒adjustment⇒packaging
Impurities	Heavy metals: not more than 20 ppm Arsenic: not more than 2 ppm

2. Genotoxicity data

Mallow Flower Extract BG	Concentration of test solution	Result	Method
Mutagenicity* (reverse mutation testing using microorganisms)	10000 μg/0.1 mL/plate	Negative	TA98、TA100、TA1535、TA1537、WP2uvrA

* The tests were conducted in our laboratory.

MALLOW FLOWER MOISTURE	Concentration of test solution	Result	Method
Mutagenicity* (reverse mutation testing using microorganisms)	5000 μg/0.1 mL/plate	Negative	TA98、TA100、TA1535、TA1537、WP2uvrA

* The tests were conducted in our laboratory.

3. Dermal irritation and sensitization data

Mallow Flower Extract BG	Concentration of test solution	Result	Method
Primary skin irritation*	100 %、10 %	Non irritant	3 Rabbits

* The tests were conducted in our laboratory.

MALLOW FLOWER MOISTURE	Concentration of test solution	Result	Method
Phototoxicity	10 %, 1 %	Negative	5 Guinea pigs
Photosensitization	Photoinduction : 10 % Photochallenge : 10 %, 1 %	Negative	5 Guinea pigs
Human patch test	10 %	Non irritant	Closed patch 34 subjects
Human skin sensitization test (Repeated Insult Patch Test)	10 %	Mild material, Not induce delayed contact sensitization	Marzulli & Maibach (modified methods) 54 subjects

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Memorandum

To: Expert Panel for Cosmetic Ingredient Safety Members and Liaisons
From: Regina Tucker, Scientific Writer/Analyst, CIR
Date: November 29, 2022
Subject: Safety Assessment of Phytosteryl Glutamates as Used in Cosmetics – Wave 2

The Council has provided CIR with unpublished data on Phytosteryl Glutamates, which are attached herein for the Panel's review (*data_PhytosterylGlutamates_Wave2_122022*). This submission includes human in use test data for a product containing 0.49995% Phytosteryl/Octyldodecyl/Lauroyl Glutamate under ophthalmological and dermatological controls. The test data showed the product has very good eye acceptability and very good skin acceptability on the eye area.

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Memorandum

TO: Bart Heldreth, Ph.D.
Executive Director - Cosmetic Ingredient Review

FROM: Carol Eisenmann, Ph.D.
Personal Care Products Council

DATE: November 28, 2022

SUBJECT: Phytosteryl/Octyldodecyl Lauroyl Glutamate

Anonymous. 2020. Human in use test under ophthalmological and dermatological controls (product contains 0.49995% Phytosteryl/Octyldodecyl/Lauroyl Glutamate).

HUMAN IN USE TEST UNDER OPHTHALMOLOGICAL AND DERMATOLOGICAL CONTROLS

product contains 0.49995% Phytosteryl/Octyldodecyl Lauroyl Glutamate

Study report – version n° 1 of 11/12/2020

STUDY REFERENCE [redacted]

INVESTIGATIONAL PRODUCT	
Denomination	[redacted]
Sponsor reference / Formula number	[redacted]
Batch number	[redacted]

SPONSOR	[redacted]
STUDY MONITOR	[redacted]
INVESTIGATING CENTRE	[redacted]
INVESTIGATORS	[redacted] (Dermatologist) [redacted] (Ophthalmologist)

Initiation date of study performance	16/10/2020
Completion date of study performance	13/11/2020

[redacted]

HUMAN IN USE TEST UNDER OPHTHALMOLOGICAL AND DERMATOLOGICAL CONTROLS

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[redacted]

HUMAN IN USE TEST UNDER OPHTHALMOLOGICAL AND DERMATOLOGICAL CONTROLS

Synopsis

STUDY OBJECTIVES	To evaluate the potential for dermatological irritation and/or hypersensitivity of the test material on a variety of skin types. To evaluate test's material potential for ophthalmological safety and/or ocular irritation when it is subjected to in-use conditions.
SPONSOR	[redacted]
STUDY MONITOR	[redacted]
INVESTIGATING CENTRE	[redacted]
INVESTIGATORS	[redacted] (Dermatologist) [redacted] (Ophthalmologist)
TYPE OF THE STUDY	Monocentric study performed in open, not considered as a "Research in Human Beings" as it does not intend "to develop medical or biological knowledges" as described in the French Decree n° 2017-884 of May 9th 2017.
DATES OF STUDY PERFORMANCE	From 16/10/2020 to 13/11/2020
INVESTIGATIONAL PRODUCT	[redacted]

[redacted]

STUDY POPULATION	**Number of test subjects: 30** valid cases **Specific inclusion criteria: test subjects** • aged from 18 to 70 • female • Asian population • with a phototype (Fitzpatrick): II, III or IV • all type of face skin (Normal, Oily, Dry, Combo) • 50% with sensitive skin on face (assessed by the Dermatologist) • 50% with sensitive eyes • 50% with regularly wearing contact lenses • 50% with normal eye • 15% with eyelash extension wearers (5-6 subjects) • regular users of cosmetic products similar to the investigational product
METHODOLOGY	**Application of the investigational product** at home by the test subjects under the normal conditions of use, for 28 consecutive days **Application sites:** Eye and lash, avoid direct contact with eyes. **Investigational product directions for use:** Morning: Eye area only; Nighttime: Eye and lash. Apply a pea-sized dollop all around the eye to treat the under eyes, lids, and crow's feet. To treat lashes, apply only at nighttime, using fingertip to gently swipe along lash lines. Avoid direct contact with eyes. **Checking of the investigational product ability to keep in good condition the human body (skin acceptability)** based on: • a clinical examination of the skin, on the experimental area, performed by the same dermatologist at the investigating centre on: + D1, before the first application + D29, after 28 days of use (± 2 days) • the analysis of the sensations of discomfort reported directly by the test subjects to the investigator during the study or in the daily questionnaire Descriptive analysis - Percentage of reactive test subjects **Checking of the investigational product ability to keep in good condition the human body (eye acceptability)** based on: • a clinical examination of the eyes performed by the same ophthalmologist, at the investigating centre on: + D1, before the first application + D29, after 28 days of use (± 2 days) • the analysis of the sensations of discomfort reported directly by the test subjects to the investigator during the study or in the daily questionnaire Descriptive analysis - Percentage of reactive test subjects **Consumer perception (questionnaire): T**he test subjects had to answer a questionnaire, after 28 days of use of the investigational product. Descriptive and statistical analysis

[redacted]

[redacted]

RESULTS

Characteristics of the included panel

Number of included subjects: 35
Number of exclusions: 0
Number of withdrawals: 5 subjects (Ref. 20, 25, 29, 33 and 34) discontinued the study for personal reasons independent of the study
Number of valid cases: 30

- Age: from 20 to 60 (Mean age=43 years-old)
- Sex: female
- Skin type on face: normal skin (37%, n=11), dry skin (3%, n=1), oily skin (3%, n=1), combination skin (57%, n=17)
- 53% with sensitive skin on face (n=16) – minor deviation
- 50% with sensitive eyes (n=15)
- 50% with normal eyes (n=15)
- 53% with regularly wearing contact lenses (n=16) – minor deviation
- 17% with eyelash extension wearers (n=5)
- Regular users of cosmetic products similar to the investigational product

Checking of the investigational product ability to keep in good condition the human body (skin acceptability)

CLINICAL SIGNS (imputable to the investigational product)			
Reference of the concerned subjects	**Description** (Date - Type)	**Test subjects**	
		Nb	**%**
/	/	0	0%

Legend: / = none

SENSATIONS OF DISCOMFORT (imputable to the investigational product)			
Reference of the concerned subjects	**Description** (Date - Type)	**Test subjects**	
		Nb	**%**
/	/	0	0%

Legend: / = none

Discussion:

No clinical sign imputable to the investigational product was observed by the dermatologist during the study and no sensation of discomfort was reported by the subjects during the study. The skin acceptability was considered as very good.

Checking of the investigational product ability to keep in good condition the human body (eye acceptability)

CLINICAL SIGNS (imputable to the investigational product)			
Reference of the concerned subjects	**Description** (Date - Type)	**Test subjects**	
		Nb	**%**
/	/	0	0%

Legend: / = none

[redacted]

SENSATIONS OF DISCOMFORT (imputable to the investigational product)			
Reference of the concerned subjects	**Description** (Date - Type)	**Test subjects**	
		Nb	**%**
/	/	0	0%

Legend: / = none

Discussion:

No clinical sign imputable to the investigational product was observed by the ophthalmologist during the study and no sensation of discomfort was reported by the subjects during the study. The eye acceptability was considered as very good.

Consumer perception (questionnaire) on the skin where the product was applied

	QUESTIONS (30 valid cases)	Kinetics	Very comfortable	Neutral	Very uncomfortable	Percentage of very comfortable	Z-Score	Significant
1	How comfortable was this product upon application?	D29	22	8	0	73%	4.65	S

	QUESTIONS (30 valid cases)	Kinetics	Yes	No	Percentage of No	Z-Score	Significant
2	Did you have any skin irritation at the site of product application?	D29	0	30	100%	5.48	S
3	Did you have any itchiness at the site of product application?	D29	0	30	100%	5.48	S
4	Did you have any swelling/edema at the site of product application?	D29	0	30	100%	5.48	S
5	Did you have any redness/erythema at the site of product application?	D29	0	30	100%	5.48	S
6	Did you have any sensitivity at the site of product application?	D29	0	30	100%	5.48	S
7	Did you have any stinging at the site of product application?	D29	0	30	100%	5.48	S
8	Did you have any pimples/spot with pus/pustules at the site of product application?	D29	0	30	100%	5.48	S
9	Did you have any hyperpigmentation at the site of product application?	D29	0	30	100%	5.48	S
10	Did you have a rash at the site of product application?	D29	0	30	100%	5.48	S
11	Did you have any burning at the site of product application?	D29	0	30	100%	5.48	S

	QUESTIONS (30 valid cases)	ANSWERS				
		YES		NO		EXPLAIN
		N	%	N	%	
12	Did you have any other undesired reactions/effects at the site of product application? Please explain.	0	0%	30	100%	NA

Legend: S = significant NS = Non significant NA= Not applicable

[redacted]

Consumer perception (questionnaire) in/near the eye where the product was applied

	QUESTIONS (30 valid cases)	Kinetics	Very comfortable	Neutral	Very uncomfortable	Percentage of very comfortable	Z-Score	Significant
1	How comfortable was this product upon application?	D29	22	8	0	73%	4.65	S

	QUESTIONS (30 valid cases)	Kinetics	Yes	No	Percentage of No	Z-Score	Significant
2	Did you have any eye irritation at the site of product application?	D29	0	30	100%	5.48	S
3	Did you have any itchiness around the eye during product application?	D29	0	30	100%	5.48	S
4	Did you have any swelling/edema around the eye during product application?	D29	0	30	100%	5.48	S
5	Did you have any redness/erythema in/around the eye during product application?	D29	0	30	100%	5.48	S
6	Did you have any sensitivity in/around the eye during product application?	D29	0	30	100%	5.48	S
7	Did you have any stinging in/around the eye during product application?	D29	0	30	100%	5.48	S
8	Did you have a rash around the eye during product application?	D29	0	30	100%	5.48	S
9	Did you have any burning in/around the eye during product application?	D29	0	30	100%	5.48	S
10	Did you have any tearing from the eye(s) during product application?	D29	0	30	100%	5.48	S
11	Did you have any discharge from the eye(s) during product application?	D29	0	30	100%	5.48	S

	QUESTIONS (30 valid cases)	ANSWERS				
		YES		NO		EXPLAIN
		N	%	N	%	
12	Did you have any other undesired reactions/effects at the site of product application? Please explain.	0	0%	30	100%	NA

Legend: S = significant NS = Non significant NA= Not applicable

OVERALL CONCLUSION

Under the experimental conditions adopted:

repeated application under normal conditions of use, for 28 consecutive days, by a panel of 30 women, regular users of similar products, aged between 20 and 60, with a phototype II to IV, with all types of skin on face, 53% with sensitive skin on face, 50% with sensitive eyes, 50% with normal eyes, 53% with regularly wearing contact lenses, 17% with eyelash extension wearers,

The product [redacted] has **a very good skin acceptability on eye area.**

The product [redacted] has **a very good eye acceptability.**

[redacted]