



## SUMMARY REPORT

**AN IN VIVO STUDY TO DETERMINE THE SUN PROTECTION FACTOR OF PRODUCT(S)  
FOLLOWING ISO: 24444:2019 COSMETICS – SUN PROTECTION TEST METHODS BASED ON  
THE AS/NZS 2604:2021 STANDARD METHOD.**

CONDUCTED ACCORDING TO PCR MASTER PROTOCOL: PCRSPFAS/NZS1 (23FEB2023)

PCR Corp. Study Number: **ULVSPF11M**

**TEST ARTICLES: 1. Ultra Violette Next Generation Queen Screen SPF50+**

### **Confidentiality Statement:**

This confidential document is the property of PCR Corp and the Ultra Violette. No information contained herein may be disclosed without the prior written approval of PCR Corp or the Ultra Violette.

Please Note: PCR Corp is an abbreviation for Princeton Consumer Research Corp.

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Draft Report: 16<sup>th</sup> May 2023  
Final Report: 31<sup>st</sup> May 2023

**AN IN VIVO STUDY TO DETERMINE THE SUN PROTECTION FACTOR OF PRODUCT(S)  
FOLLOWING ISO: 24444:2019 COSMETICS – SUN PROTECTION TEST METHOD AN IN VIVO  
STUDY TO DETERMINE THE SUN PROTECTION FACTOR OF PRODUCT(S) FOLLOWING ISO:  
24444:2019 COSMETICS – SUN PROTECTION TEST METHODS BASED ON THE AS/NZS  
2604:2021 STANDARD METHODS.**

CONDUCTED ACCORDING TO PCR MASTER PROTOCOL: PCRSPFAS/NZS1 (23FEB2023)

PCR Corp. Study Number: **ULVSPF11M**

I declare that the following report constitutes a true and faithful account of the procedures adopted and the results obtained in the performance of this study. The aspects of the study conducted by PCR Corp were performed, where relevant, in accordance with the principles of Good Clinical Research Practice.

Andrew King  
(Principal Investigator)

  
.....

Date 31 / 05 / 2023

Jack Donnelly  
(Project Manager)

  
.....

Date 31 / 05 / 2023

Charlie Gould  
(Project Manager coordinator)

  
.....

Date 31 / 05 / 2023

**QUALITY ASSURANCE STATEMENT**

This report has been audited and is considered to be an accurate description of the methods used and an accurate presentation of the data obtained during the conduct of the study.

Bryan Baker  
(Quality Assurance)






  
.....

Date 31 / 05 / 2023

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**KEY STUDY PERSONNEL AND RESPONSIBILITIES**

<b>Key Personnel</b>	<b>General Responsibilities</b>
<b>Principal Investigator (PI)</b> Andrew King PCR Corp 164A Plymouth Grove Ardwick Manchester M13 0AF United Kingdom 	The Principal Investigator (PI) responsible for ensuring sufficient resources were available to conduct the study and was responsible for the study design, review of the study protocol, authorization and summary report.
<b>Study Supervisor (SS)</b> Kizzy Heaney PCR Corp 164A Plymouth Grove Ardwick Manchester M13 0AF United Kingdom 	The Study Supervisor (SS) responsible for the conduct of the study on a daily basis.
<b>Project Manager (PM)</b> Jack Donnelly PCR Corp 164A Plymouth Grove Ardwick Manchester M13 0AF United Kingdom 	The Project Manager (PM) involved with the study authorization, compilation of study results and summary report.
<b>Project Management Coordinator (PMC)</b> Charlie Gould PCR Corp 8 Richmond Road Dukes Park Chelmsford Essex CM2 6UA United Kingdom 	The Project Management Coordinator (PMC) will liaise with Sponsor & PCR Study staff. Assist the PM with Protocol & Report completion.
<b>Sponsor Contact</b> 	

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## INTRODUCTION AND OBJECTIVE

A study in healthy volunteers to determine the sun protection factor (SPF) of one Sun Protection product when compared to unprotected skin after the sites are exposed to an artificial "sun" light source (based on the ISO 24444:2019 SPF test methods (AS/NZS 2604:2021) - In vivo determination of Sun Protection Factor (SPF).

## MATERIALS AND METHODS

### 1. STUDY DESIGN

The study was conducted single blind, at a single center according to Master Protocol: PCRSPF1 (See Appendix 2 for Study Authorization).

### 2. TEST MATERIALS

#### 2.1. TEST ARTICLES

The test articles were supplied by the Sponsor and labelled as follow:

No:	Test article name:	Batch/lot code:	Expected SPF	Any specific requirements
1.	Ultra Violette Next Generation Queen Screen SPF50+		SPF50+	Use as supplied

#### Standard References

No	Standard Reference	Subjects	Mean & Acceptance Limits
1.	P8	Subjects (1-5)	63.1 (43.9-82.3)
2.	P2	Subjects (6-10)	16.1 (13.7-18.5)

### 3. STUDY ETHICS

#### 3.1. DECLARATION OF HELSINKI

The study conformed to the requirements of the 1964 Declaration of Helsinki and its subsequent amendments (World Medical Association; 2013)<sup>2</sup>.

#### 3.2. INDEMNITY PROVISION

The Sponsor was responsible, without regard to legal liability, and shall indemnify PCR Corp, or any of their respective officers or employees in the event of claims for compensation from subjects suffering injury arising out of the administration or use of the test article, or of any procedure required under this protocol as a result of a subject participating in this study, except and insofar as such claims arise as a result of any negligent act or omission on the part of PCR Corp employees or any persons undertaking or involved in the study by arrangement with PCR Corp.

#### 3.3. ICH GCP

The study was conducted in accordance with applicable International Council for Harmonization. 2016. Integrated Addendum to ICH E6(R1): Guideline for Good Clinical Practice E6(R2)<sup>3</sup> in as much as they apply to cosmetic and consumer product testing/research.

#### **4. QUALITY ASSURANCE**

The study was conducted according to the Sponsor Authorization, the master protocol, the Standard Operating Procedures of PCR Corp and according to the applicable ICH Guidelines on Good Clinical Practice, and other recognised guidelines. An audit of the final report was completed, for accuracy and completeness of presentation. Additionally, the study may be subject to the following Quality Assurance procedures:

- Review of protocol and protocol amendments for completeness, clarity and adequacy.
- Inspection and/or audit of critical phases of study conduct for compliance with protocol and PCR Corp procedures.

PCR Corp Quality Assurance would have informed PCR Corp management of any findings that may have affected the integrity of the study.

#### **5. RETENTION OF DATA**

All raw data generated by PCR Corp during the course of the study, including the sponsor authorization form and final summary report, will be retained in the PCR Corp Archive for a minimum period of three years from study completion as is PCR Corp policy for cosmetic products. In the event of original data being transferred to the Sponsor at their request, exact copies will be so retained. At no time will archived data be destroyed without prior written approval of the Sponsor. All study data will be available at any time, by appointment, for inspection by the Sponsor or their authorized representative. The study master protocol will be archived and retained indefinitely at PCR Corp.

#### **6. REFERENCES**

1. ICH E6\_R2, INTEGRATED ADDENDUM TO ICH E6(R1): GUIDELINE FOR GOOD CLINICAL PRACTICE, Current Step 4 version dated 9 November 2016.
2. ISO 24444:2019 (E)
3. The validity and practicability of sun-reactive skin types I through IV. Archives Dermatol. 124 p. 869-871 (1988).
4. World Medical Association (2013). "Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects". JAMA 310 (20): 2191–2194. doi:10.1001/jama.2013.281053

## RESULTS

### 1 LOCATION AND DATES OF THE STUDY

The study was performed at PCR Corp, Manchester between w/c 1<sup>st</sup> May 2023 and w/e5th May 2023.

### 2 SUBJECTS

10 subjects of both sexes were recruited into and completed the study.

Figure 1: ULVSPF11M Demographics

Subject	Age	Gender	ITA
1	36	Female	61.2
2	51	Female	49.5
3	59	Female	36.4
4	37	Female	43.2
5	52	Female	40.3
6	33	Male	50.4
7	47	Female	57.5
8	43	Male	45.5
9	53	Male	40.2
10	57	Male	39.3
MEAN ITA			46.4

### 3 ADVERSE EVENTS, ADVERSE REACTIONS AND SUBJECTS NOT COMPLETING THE STUDY

No adverse events or reactions were reported, no subjects withdrew. The study was completed by all 10 subjects.

### 4 QUALITY OF UV IRRADIATION

The percentage RCEE (relative cumulative erythema effectiveness) for the solar simulator used in this study was within the acceptable lower and upper limits directed by the ISO 24444:2019 SPF test methods - In vivo determination of Sun Protection Factor (SPF).



## **5     ASSESSMENTS**

Individual and mean SPF values, their standard deviations and confidence intervals for all 10 subjects are presented in Table 1.

The mean SPF value for the P8 standard preparation was 66.1. Since the expected SPF for this preparation was between 43.9 and 82.3 the study can be considered valid.

The mean SPF value for the P2 standard preparation was 16.5. Since the expected static SPF for this preparation was between 13.7 and 18.5 the study can be considered valid.

Mean Static SPF results (N=10) for the test article:

Test article 1 – Ultra Violette Next Generation Queen Screen SPF50+ achieved a mean SPF value of 62.9.

Since all Confidence Intervals (CI's) were within 17% of each mean SPF value for the test article, the minimum number of 10 subjects was acceptable for this study.

**TABLE 1: INDIVIDUAL AND MEAN SPF VALUES FOR TEST ARTICLE 1 – Ultra Violette Next Generation Queen Screen SPF50+ and P8, P2 controls**

ISO 24444(2019) - 2604:2021 Test Method				Laboratory: Princeton Consumer Research Corp.																		
Study Period: 01/05/23 - 04/05/23				Report Date: 5th May 2023																		
Test Product Code: ULVSPF11M																						
Test Product Description : 1 -Ultra Violette Next Generation Queen Screen SPF50+				Reference Standards: PX & P2																		
Test Product expected SPF: 50+				The geometric progression (Test Product) : 1.12																		
Test Product Application Method: ULVSPF11M (First paragraph of "Mode of Delivery/Application" at P.8 or 9)				The geometric progression (Standards) : 1.12																		
Any specific instructions for Application Method: N/A				Protocol deviations if any: N/A																		
Solar Simulators used in the test (latest calibration and statement of compliance): 300W multiport solar simulator Model 601 V2.5(Solar Light Company, Glenside PA)																						
	TEST: ULVSPF11M				SIM	TEST SUBJECTS																
Subject	Exposure	Applied	Exposure	Read	Sim EE (highest)	Subject	Skin	REDETERMINED MEDu		MEDp		SPFI	Reject?	Ref. Standard				Ref. Standard				
N°	date	by	by	by	W/m² eff.	code#	Age	ITA°	seconds	J/m² eff.	seconds	J/m² eff.			P#	seconds	J/m² eff.	SPF	P#	seconds	J/m² eff.	SPF
1	02/05/2023	T-B	C-D	A-K	8.0	WFY	36	61.2	21	164	1232	9856	60.0	No	8	1296	10365	63.1				
2	02/05/2023	T-B	C-D	A-K	8.0	VRS	51	49.5	28	224	1677	13414	60.0	No	8	1975	15800	70.6				
3	02/05/2023	T-B	C-D	A-K	8.0	IDF	59	36.4	38	307	2576	20605	67.2	No	8	2709	21669	70.6				
4	02/05/2023	T-B	C-D	A-K	8.0	PAE	37	43.2	29	233	1750	13998	60.0	No	8	1840	14721	63.1				
5	02/05/2023	T-B	C-D	A-K	8.0	QCO	52	40.3	31	250	1875	14997	60.0	No	8	1972	15772	63.1				
6	02/05/2023	T-B	C-D	A-K	8.0	BH	33	50.4	27	219	1639	13111	60.0	No					2	393	3141	14.3
7	02/05/2023	T-B	C-D	A-K	8.0	AAV	47	57.5	20	162	1215	9724	60.0	No					2	365	2922	18
8	02/05/2023	T-B	C-D	A-K	8.0	PFR	43	45.5	28	221	1852	14818	67.2	No					2	497	3976	18
9	02/05/2023	T-B	C-D	A-K	8.0	TPV	53	40.2	31	251	2105	16841	67.2	No					2	504	4035	16.1
10	02/05/2023	T-B	C-D	A-K	8.0	HJK	57	39.3	32	256	2150	17196	67.2	No					2	515	4120	16.1
11																						
12																						
13																						
14																						
15																						
16																						
17																						
18																						
19																						
20																						
FINAL RESULT															t (Ref n=5)		2.790	t (Test n=10)		2.262		
Test Product Avg. SPF:		62.8			Std. Dev.: 3.7		C: 2.6		CI%: 4.1		95%CI: 60.2		~	65.4	17% of Mean:		10.6	CI %<17% Complies:		Yes		
P8 Avg. SPF:		66.1			Std. Dev.: 4.1		C: 5.1		CI%: 7.7		95%CI: 61.0		~	71.2	17% of Mean:		11.2	CI %<17% Complies:		Yes		
P2 Avg. SPF:		16.5			Std. Dev.: 1.5		C: 1.8		CI%: 10.9		95%CI: 14.7		~	18.3	17% of Mean:		2.8	CI %<17% Complies:		Yes		

**APPENDIX 1: TEST ARTICLE INGREDIENT LISTING****Test Article 1: Ultra Violette Next Generation Queen Screen SPF50+**

## Ingredients list:

Water, Dicaprylyl Carbonate, Caprylyl Methicone, Isododecane, Diisopropyl Adipate, Isostearyl Neopentanoate, Ethylhexyl Salicylate, Phenylbenzimidazole Sulfonic Acid, Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine, C12-15 Alkyl Benzoate, Diethylamino Hydroxybenzoyl Hexyl Benzoate, Glycerin, Cetyl PEG/PPG-10/1 Dimethicone, Cetyl Dimethicone, Methylene Bis-Benzotriazoly Tetramethylbutylphenol, Acrylates/C12-22 Alkyl Methacrylate Copolymer, Phenyl Trimethicone, Octyl Triazone, [FOLLOWING INGREDIENTS IN ANY ORDER] Sodium Chloride, Stearalkonium Hectorite, Sodium Hydroxide, Saccharide Isomerate, Tocopheryl Acetate, Dimethicone, Phenoxyethanol, Simmondsia Chinensis (Jojoba) Seed Oil, Hydroxyacetophenone, Mica, Panthenol, Decyl Glucoside, Fragrance, Arginine, Coco-Glucoside, Propylene Carbonate, Ethyl Linoleate (Vitamin F), Benzyl Alcohol, Titanium Dioxide, Disodium Lauryl Sulfosuccinate, Dunaliella Salina Extract, Terminalia Ferdinandiana (Kakadu Plum) Fruit Extract, Propylene Glycol, Silica, Xanthan Gum, Sodium Citrate, Citric Acid, Pantolactone, Tocopherol

**APPENDIX 2: MASTER PROTOCOL: PCRSPFAS/NZS1 (23FEB2023)**

PCR CORP MASTER PROTOCOL: PCRSPFAS/NZS1

23<sup>rd</sup> February 2023**MASTER PROTOCOL**

PCR Corp. Master Protocol: PCRSPFAS/NZS1

This protocol will serve as the master protocol for an in vivo study to determine the sun protection factor of multiple test articles. Sponsor specific information for the test article(s) tested will be included in Project Management Authorization Form(s).

Title: An in vivo study to determine the sun protection factor of product(s) following ISO: 24444:2019 cosmetics – sun protection test methods based on the AS/NZS2604:2021 standard method.

Version: Final Version

Date: 23<sup>rd</sup> February 2023

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**Confidentiality Statement:**

This confidential document is the property of PCR Corp. No information contained herein may be disclosed without the prior written approval of PCR Corp.

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**Approval:**

A handwritten signature in black ink that reads 'B Drewitt'.

Barrie Drewitt  
Technical Director  
PCR Corp

23 / 02 / 2023

Date

Final version: 23<sup>rd</sup> February 2023

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## **EXECUTIVE SUMMARY REPORT**

PCR Corp Study No:	ULVIVT12M
Title:	An in-vitro test to determine the UVA protection Factor (UVA-PF) of one test article based on the ISO 24443:2012 UVA method for the EU, SA, Japan, Aus & NZ.
Sponsor:	Ultra Violette 10 - 20 Gwynne St. Cremorne VIC, 3121 Australia
Study Centre:	PCR Corp 164A Plymouth Grove Ardwick Manchester M13 0AF United Kingdom
Date:	16 <sup>th</sup> August 2023
Conclusions:	It can be concluded that the test article meets UVA labelling requirements.
References:	ISO 24443 SUN PROTECTION TEST METHODS – DETERMINATION OF SUNSCREEN UVA PHOTOPROTECTION IN VITRO (ISO 24443:2012)

**PCR Corp Report No: ULVIVT12M**

I declare that the following report constitutes a true and faithful account of the procedures adopted and the results obtained in the performance of this study.

Jack Donnelly  
(Principal Investigator)

*J Donnelly*

.....

16 / 08 / 2023  
Date.....

Charlie Gould  
(Project Manager)

*C Gould*

.....

17 / 08 / 2023  
Date.....

**TEST ARTICLE 1 – Ultra Violette Next Generation Queen Screen SPF50+****ISO 24443:2012****Results Report**

Product: Ultra Violette Next Generation Queen Screen SPF50+  
Description:  
Operator: Kizzy Heaney  
SpectroAnalyzer: Labsphere UV-2000S  
Plate Manufacturer: d PMMA Pro Lite - Plates  
Lot Number: ULVIVT12  
Date: 28/07/2023 15:21:44

**Product Results**

SPF (in vivo): 50  
Simulator Irradiance (W/m<sup>2</sup>): 180  
Calibration Factor Y: 1  
C Coeff Mean: 1.13  
UVAPF Mean: 21.23  
UVAPF STD: 1.80  
UVAPF 95% CI (% of mean): 13.51%  
Ratio (SPF in vivo/UVAPF): 2.36  
UVA Balance: 41%  
Irradiation Dose (J/cm<sup>2</sup>): 26.87  
Exposure Time Mean: 24.9 min  
Lambda Critical: 374.00  
UVA/UVB Ratio: 0.764  
Broad Spectrum Protection: Pass

**Reference Sunscreen S2 Validation**

Validation Date: 17/07/2023 15:24:13  
UVAPF: 13.98

## ISO instrument validation

Validation Date	17/07/2023 14:29:48			
Item	Reference	Measured	Criteria	Result
Peak	361.0	360.9	+/- 1nm	passed
Linearity	85.00%	99.27%	>85.00%	passed
Dynamic Range	2.20	2.34	>2.20	passed

## ISO plate transmittance validation

Validation Date	17/07/2023 15:25:20		
Item	Measured	Criteria	Result
290 nm	69.47%	>60%	Pass
300nm	75.59%	>69%	Pass
320nm	81.78%	>81%	Pass

## Plate Data

	SPF	C	UVAPF	Irradiation	Exposure	
	Mean	Coeff	Pre-irrad	Dose (D)	Time	UVAPF
Plate 1	35.49	1.10	22.36	26.84	24.8	18.75
Plate 2	34.65	1.10	22.13	26.56	24.6	21.07
Plate 3	26.68	1.19	22.75	27.30	25.3	22.79
Plate 4	33.07	1.12	22.33	26.79	24.8	22.29

## Pre-irradiation Statistics

	SPF	UVAPF	SPF/UVAPF
Number of Plates:	4	4	4
Mean:	33.36	22.39	1.491
STD:	4.54	0.26	0.22
COV:	13.60	1.16%	14.50%

UVA/UVB Ratio: 0.764  
 Lambda Critical: 374.00

## Post-irradiation Statistics

	SPF	UVAPF	SPF/UVAPF
Number of Plates:	4	4	4
Mean:	30.53	21.23	1.445
STD:	3.21	1.80	0.17
COV:	10.52	8.49%	12.01%

UVA/UVB Ratio: 0.764  
 Lambda Critical: 374.00



## Mean UV absorbance values

Lambda	Pre-Irrad	Post-Irrad	Lambda	Pre-Irrad	Post-Irrad
290	1.5438	1.5083	346	1.4677	1.4387
291	1.5466	1.5131	347	1.4720	1.4430
292	1.5501	1.5163	348	1.4741	1.4446
293	1.5442	1.5118	349	1.4719	1.4432
294	1.5382	1.5050	350	1.4736	1.4438
295	1.5340	1.5011	351	1.4780	1.4486
296	1.5281	1.4953	352	1.4802	1.4504
297	1.5160	1.4834	353	1.4822	1.4521
298	1.5268	1.4943	354	1.4841	1.4537
299	1.5379	1.5052	355	1.4856	1.4548
300	1.5353	1.5035	356	1.4890	1.4576
301	1.5209	1.4884	357	1.4914	1.4600
302	1.5200	1.4889	358	1.4934	1.4617
303	1.5164	1.4840	359	1.4964	1.4644
304	1.5113	1.4805	360	1.4936	1.4606
305	1.5138	1.4818	361	1.4905	1.4578
306	1.5175	1.4857	362	1.4956	1.4622
307	1.5137	1.4828	363	1.4912	1.4572
308	1.5092	1.4776	364	1.4844	1.4503
309	1.5006	1.4695	365	1.4744	1.4402
310	1.5015	1.4707	366	1.4641	1.4293
311	1.4965	1.4655	367	1.4521	1.4174
312	1.5026	1.4715	368	1.4359	1.4009
313	1.5097	1.4792	369	1.4105	1.3760
314	1.5099	1.4790	370	1.3746	1.3406
315	1.4997	1.4688	371	1.3318	1.2987
316	1.4962	1.4651	372	1.2906	1.2586
317	1.4952	1.4642	373	1.2401	1.2098
318	1.4943	1.4639	374	1.1656	1.1379
319	1.4932	1.4627	375	1.0757	1.0512
320	1.4905	1.4608	376	0.9892	0.9678
321	1.4888	1.4586	377	0.9041	0.8851
322	1.4871	1.4570	378	0.8280	0.8108
323	1.4843	1.4542	379	0.7570	0.7413
324	1.4810	1.4508	380	0.6861	0.6720
325	1.4812	1.4508	381	0.6328	0.6197
326	1.4789	1.4494	382	0.5887	0.5767
327	1.4784	1.4483	383	0.5430	0.5320
328	1.4811	1.4513	384	0.5036	0.4934
329	1.4783	1.4494	385	0.4758	0.4666
330	1.4745	1.4450	386	0.4546	0.4461
331	1.4734	1.4437	387	0.4324	0.4247
332	1.4715	1.4425	388	0.4131	0.4061
333	1.4706	1.4417	389	0.3978	0.3915
334	1.4701	1.4400	390	0.3812	0.3755
335	1.4668	1.4381	391	0.3703	0.3652
336	1.4671	1.4375	392	0.3673	0.3625
337	1.4677	1.4378	393	0.3574	0.3531
338	1.4693	1.4400	394	0.3464	0.3424
339	1.4682	1.4389	395	0.3431	0.3393
340	1.4679	1.4390	396	0.3400	0.3364
341	1.4653	1.4358	397	0.3335	0.3303
342	1.4663	1.4376	398	0.3262	0.3229
343	1.4692	1.4397	399	0.3226	0.3196
344	1.4674	1.4382	400	0.3218	0.3189
345	1.4664	1.4369			

## Labsphere Transmittance Analyzer SPF Report

**Product:** Ultra Violette Next Generation Queen Screen SPF50+  
**Description:**  
**Operator:** Kizzy Heaney  
**SpectroAnalyzer:** Labsphere UV-2000S  
**Plate Manufacturer:** d PMMA Pro Lite - Plates  
**Lot Number:** ULVIVT12  
**Date:** 28/07/2023 15:21:44  
**Solar Irradiance Profile:** ISO, 2012  
**UVA/UVB ratio calculation used:** Labsphere Method

### Study Statistics

	SPF	UVAPF	SPF/UVAPF	UVA/UVB	Lambda Critical	Exposure Time
Number of Sets:	8	8	8	8	8	8
Mean:	31.95	21.99	1.441	0.764	374.00	24.44
STD:	3.94	1.32	0.17	0.00	0.00	1.47
COV:	12.33%	6.02%	11.72%	0.25%	0.00%	6.02%

### Plate 1 pre-irradiation

	SPF	UVAPF	SPF/UVAPF	UVA/UVB	Lambda Critical	Exposure Time
Number of Scans:	5	5	5	5	5	5
Mean:	36.83	22.62	1.601	0.763	374.00	25.14
STD:	11.45	4.70	0.17	0.00	0.00	5.22
COV:	31.08%	20.78%	10.42%	0.63%	0.00%	20.78%

### Plate 2 pre-irradiation

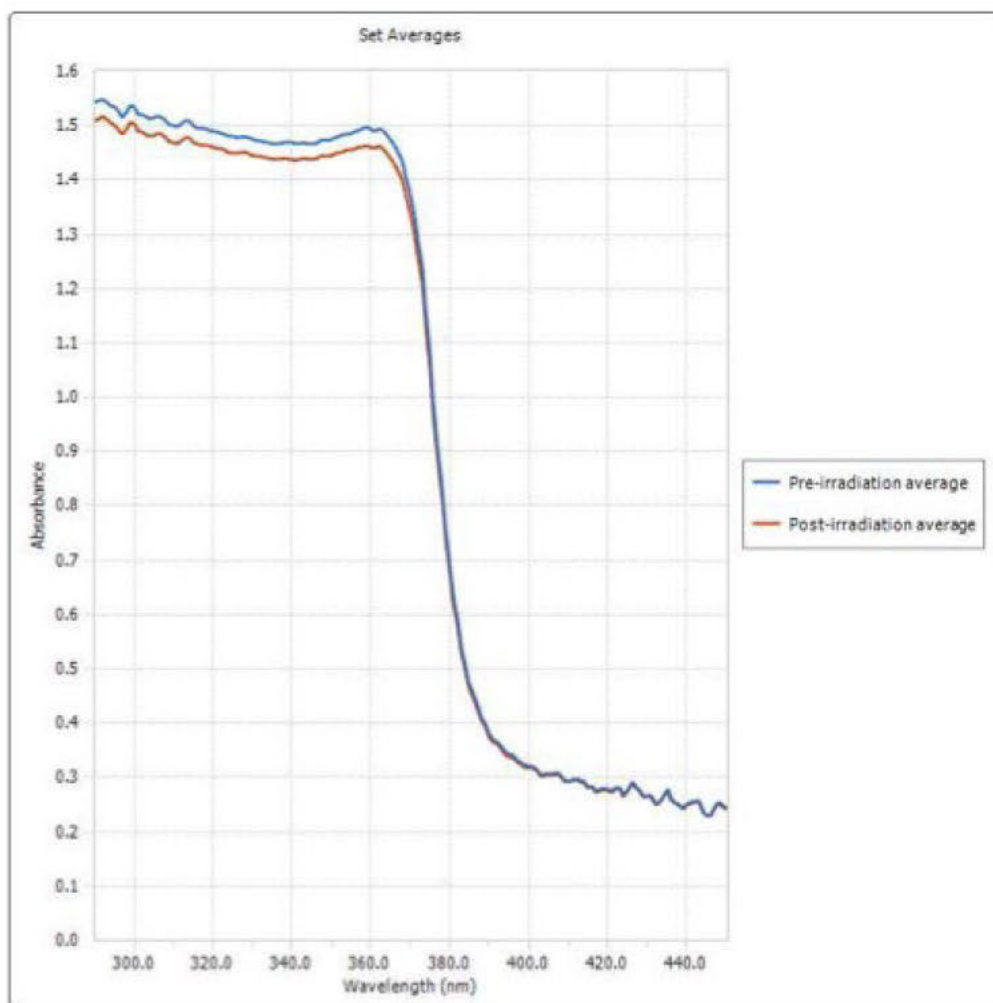
	SPF	UVAPF	SPF/UVAPF	UVA/UVB	Lambda Critical	Exposure Time
Number of Scans:	5	5	5	5	5	5
Mean:	36.11	22.49	1.578	0.762	374.00	24.99
STD:	11.47	5.11	0.15	0.00	0.00	5.67
COV:	31.77%	22.71%	9.42%	0.18%	0.00%	22.71%

### Plate 3 pre-irradiation

	SPF	UVAPF	SPF/UVAPF	UVA/UVB	Lambda Critical	Exposure Time
Number of Scans:	5	5	5	5	5	5
Mean:	26.87	22.83	1.174	0.767	374.00	25.37
STD:	3.59	2.43	0.04	0.00	0.00	2.70
COV:	13.37%	10.65%	3.27%	0.35%	0.00%	10.65%

### Plate 4 pre-irradiation

	SPF	UVAPF	SPF/UVAPF	UVA/UVB	Lambda Critical	Exposure Time
Number of Scans:	5	5	5	5	5	5



Mean:	33.64	22.48	1.486	0.763	374.00	24.98
STD:	7.35	3.47	0.09	0.00	0.00	3.85
COV:	21.84%	15.42%	5.90%	0.22%	0.00%	15.42%

## Plate 1 post-irradiation

	SPF	UVAPF	SPF/UVAPF	UVA/UVB	Lambda Critical	Exposure Time
Number of Scans:	5	5	5	5	5	5
Mean:	20.57	18.95	1.409	0.764	374.00	21.05
STD:	8.23	3.73	0.12	0.00	0.00	4.14
COV:	28.81%	19.67%	8.29%	0.44%	0.00%	19.67%

## Plate 2 post-irradiation

	SPF	UVAPF	SPF/UVAPF	UVA/UVB	Lambda Critical	Exposure Time
Number of Scans:	5	5	5	5	5	5
Mean:	32.96	21.29	1.533	0.763	374.00	23.66
STD:	8.09	3.83	0.10	0.00	0.00	4.26
COV:	24.55%	18.00%	6.85%	0.12%	0.00%	18.00%

## Plate 3 post-irradiation

	SPF	UVAPF	SPF/UVAPF	UVA/UVB	Lambda Critical	Exposure Time
Number of Scans:	5	5	5	5	5	5
Mean:	27.06	22.87	1.179	0.767	374.00	25.41
STD:	4.16	2.54	0.05	0.00	0.00	2.84
COV:	15.38%	11.13%	4.53%	0.34%	0.00%	11.13%

## Plate 4 post-irradiation

	SPF	UVAPF	SPF/UVAPF	UVA/UVB	Lambda Critical	Exposure Time
Number of Scans:	5	5	5	5	5	5
Mean:	33.56	22.41	1.489	0.763	374.00	24.90
STD:	6.51	3.04	0.08	0.00	0.00	3.38
COV:	19.39%	13.56%	5.17%	0.12%	0.00%	13.56%

**INCI LISTING****TEST ARTICLE 1: ULTRA VIOLETTE NEXT GENERATION QUEEN SCREEN SPF50+**

Water, Dicaprylyl Carbonate, Caprylyl Methicone, Isododecane, Diisopropyl Adipate, Isostearyl Neopentanoate, Ethylhexyl Salicylate, Phenylbenzimidazole Sulfonic Acid, Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine, C12-15 Alkyl Benzoate, Diethylamino Hydroxybenzoyl Hexyl Benzoate, Glycerin, Cetyl PEG/PPG-10/1 Dimethicone, Cetyl Dimethicone, Methylene Bis-Benzotriazolyl Tetramethylbutylphenol, Acrylates/C12-22 Alkyl Methacrylate Copolymer, Phenyl Trimethicone, Octyl Triazone, [FOLLOWING INGREDIENTS IN ANY ORDER] Sodium Chloride, Stearalkonium Hectorite, Sodium Hydroxide, Saccharide Isomerate, Tocopheryl Acetate, Dimethicone, Phenoxyethanol, Simmondsia Chinensis (Jojoba) Seed Oil, Hydroxyacetophenone, Mica, Panthenol, Decyl Glucoside, Fragrance, Arginine, Coco-Glucoside, Propylene Carbonate, Ethyl Linoleate (Vitamin F), Benzyl Alcohol, Titanium Dioxide, Disodium Lauryl Sulfosuccinate, Dunaliella Salina Extract, Terminalia Ferdinandiana (Kakadu Plum) Fruit Extract, Propylene Glycol, Silica, Xanthan Gum, Sodium Citrate, Citric Acid, Pantolactone, Tocopherol