



Client: Moogoo Skin Care Pty Ltd

Product: MOO GOO Sunscreen Lotion

Batch/Formula No: MGA-12 30th July 2014

Date Rec: 7/10/14

Date of Test: 8/10/14

Protocol: The sample was evaluated according to the method described in ISO 24443 (2012)

Instrument: Shimadzu UV-2450 Spectrophotometer fitted with Integrating Sphere Device

Substrate: Moulded PMMA 6 um Helioscreen

Substrate Ref: 199

S2 Ref. Batch: 1024

S2 Ref Test Date: 28/4/2014 S2 Mean: 14.2

S2 S.D. 0.3

In-Vivo SPF: 43.7 static as determined (Preliminary)

Quantity Applied: 1.30 mg/sq cm:

UVA irradiance: 6.5 mWcm<sup>-2</sup> [requirement 4 to 20 mWcm<sup>-2</sup>] Plate Temperature: 34 °C

Pre-irradiation Coeff of Calib. 1.059

Plate Drying: 35oC for 30 minutes

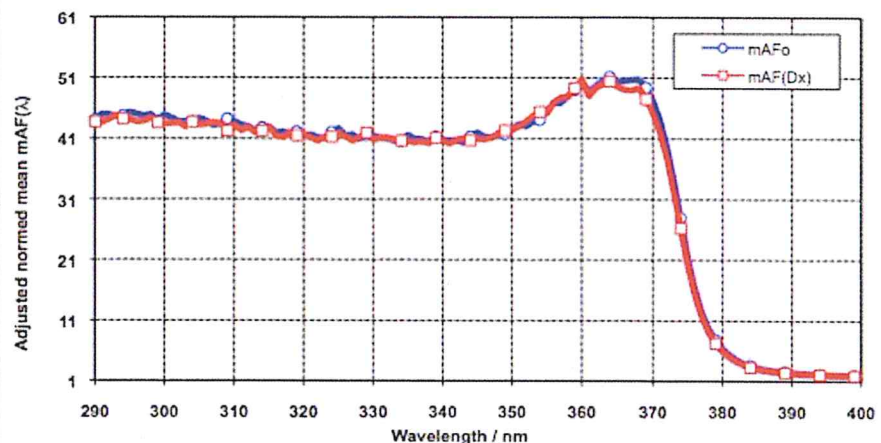
UVA exposure Time: hh:mm  
01:05

UVA exposure Dose: 25.4 J/ sq.cm

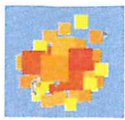
Constant C: 0.995

ISO in vitro UVAPF<sub>0</sub>: 22.34  
(pre irradiation)ISO in vitro UVAPF<sub>Dx</sub>: 21.34  
(post irradiation) C.I. %: 2.4%  
(limit 17%)

Mean (4 plates) mAF, before and after UV exposure



Comments:

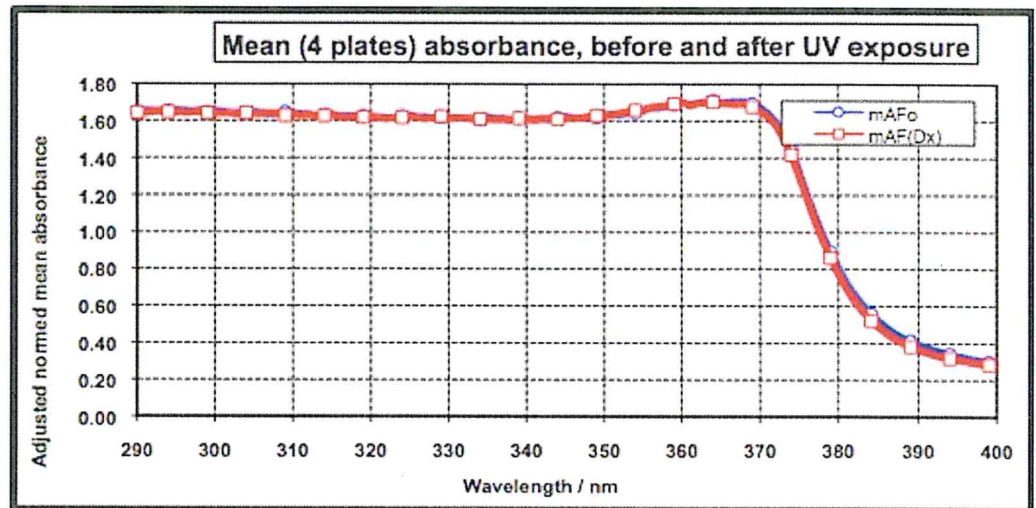


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Final UV Absorbance			
WL (nm)	Absorbance	Absorbance	Absorbance
290	1.640687	330	1.61056
291	1.639986	331	1.61479
292	1.645116	332	1.61392
293	1.651166	333	1.61168
294	1.645446	334	1.60904
295	1.645032	335	1.60797
296	1.640562	336	1.60614
297	1.642256	337	1.60736
298	1.647393	338	1.60471
299	1.639399	339	1.61434
300	1.637868	340	1.6086
301	1.638541	341	1.60405
302	1.639117	342	1.61028
303	1.6327	343	1.61366
304	1.640635	344	1.60954
305	1.63604	345	1.61254
306	1.636894	346	1.61143
307	1.639991	347	1.61412
308	1.637655	348	1.62245
309	1.625677	349	1.62698
310	1.63557	350	1.62828
311	1.626428	351	1.63372
312	1.632045	352	1.64241
313	1.62311	353	1.65128
314	1.62551	354	1.65737
315	1.631606	355	1.65536
316	1.617673	356	1.67246
317	1.61513	357	1.67916
318	1.62299	358	1.68023
319	1.617861	359	1.69343
320	1.620954	360	1.70493
321	1.613745	361	1.6821
322	1.609185	362	1.69378
323	1.615084	363	1.69916
324	1.61587	364	1.70317
325	1.622911	365	1.69577
326	1.615849	366	1.6914
327	1.609184	367	1.68984
328	1.614279	368	1.69333
329	1.622688	369	1.67675
		370	1.65407
		371	1.62347
		372	1.57734
		373	1.50743
		374	1.41859
		375	1.30522
		376	1.18579
		377	1.06691
		378	0.95975
		379	0.86316
		380	0.77633
		381	0.70032
		382	0.63103
		383	0.57101
		384	0.52251
		385	0.48321
		386	0.45041
		387	0.42293
		388	0.40103
		389	0.38185
		390	0.36602
		391	0.35112
		392	0.33754
		393	0.3273
		394	0.31887
		395	0.311
		396	0.30366
		397	0.29719
		398	0.29138
		399	0.28537
		400	0.27925

Signed: Craig Dennyson

Client: Moogoo Skin Care Pty Ltd

Our Ref: UV14P103

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Product: MOO GOO Sunscreen Lotion

Batch/Formula No: MGA-12 30th July 2014

Instrument: Shimadzu UV-2450 Spectrophotometer fitted with Integrating Sphere Device  
Calibration Date: 18/9/2014

### Plate Transmission Test

Plate Manufacturer: Moulded PMMA 6 um Helioscreen

Lot #: 199

nm Limits:

290	>60%	67.2	%	PASS
300	>69%	72.3	%	PASS
320	>81%	82.0	%	PASS

### Spectrophotometric Wavelength Accuracy

Reference Wavelength	361 nm
Measured Wavelength	361.0 nm
Peak Value	0.484
Limit +/- 1	TRUE

### Spectrophotometric Linearity Test

	Limit		
Dynamic Range Limit	2.7	PASS	min 2.2
Linearity Limit	93.2 %	PASS	R <sub>2</sub> = 85% min

Calibrated by: Craig Dennyson



**Client:** Moogoo Skin Care Pty Ltd

**Our Ref:** UV14P103

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**Product:** MOO GOO Sunscreen Lotion

**Batch/Formula No:** MGA-12 30th July 2014

The sample was evaluated according to the method described in ISO 24443. Pre-irradiation of the sample was calculated based on an SPF value of 43.7 which was static as determined (Preliminary).

1. Based on Label SPF of : 40  
and In-Vivo SPF of : 43.7

UVAPFD<sub>x</sub>/Label SPF = 0.533 **PASS**

Broad Spectrum compliance has been calculated based on the client advised intended Label SPF value of 40 and may vary if the label SPF is different. The required value is > or = 0.333 and the sample PASSES this requirement.

2. Critical Wavelength  
[Post Irradiation] =

373.7 nm **PASS**

The Critical Wavelength was found to be equal or greater than 370nm and the product PASSES this part of the test requirement

Ratio vis Category Description for AS/NZS 2604

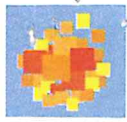
Performance of this sample

SPF Found	Category Description		Primary	Secondary		UVAPF Ratio "Broad Spectrum"
Tested SPF 4-14	Label SPF			Skin Care	Colour and/or Lip	
	4	Low	Compulsory	Compulsory	Optional	5.33 PASS
	6	Low	Compulsory	Compulsory	Optional	3.55 PASS
	8	Low	Compulsory	Compulsory	Optional	2.66 PASS
15-29	10	Low	Compulsory	Compulsory	Optional	2.13 PASS
	15	Medium or Moderate	Compulsory	Compulsory	Optional	1.42 PASS
	20		Compulsory	Compulsory	Optional	1.06 PASS
30-59	25		Compulsory	Compulsory	Optional	.853 PASS
	30	High	Compulsory	Compulsory**	Compulsory	.711 PASS
	40	High	Compulsory	Compulsory**	Compulsory	.533 PASS
	50	High	Compulsory	Compulsory**	Compulsory	n/a
60 or higher	50+	Very High	Compulsory	Compulsory**	Compulsory	n/a

\*\*NICNAS require that the SPF test result for a sunscreen product must be the same as or higher than the SPF stated on the label, and must be within the same category description as the SPF stated on the label. For moisturisers with secondary sunscreens, the SPF on the label must be no more than 15 for the product to be considered a cosmetic. For a product labelled SPF15, the tested protection factor must be in the range 15-29 (inclusive).

This compliance report should be read in conjunction with the attached 3 pages describing the required procedure as defined in ISO 24443

  
**Signed:** Craig Dennyson



**Client:** Moogoo Skin Care Pty Ltd

**Our Ref:** UV14P103

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**Product:** MOO GOO Sunscreen Lotion

**Batch/Formula No:** MGA-12 30th July 2014

The sample was evaluated according to the method described in ISO 24443. Pre-irradiation of the sample was calculated based on the In vivo SPF value.

<p>1. <b>Label SPF 40</b></p> <p><b>E.U. UVAPF<sub>Dx</sub> 0.533</b></p> <p><b>Label SPF</b></p> <p><b>PASS</b></p>	<p>The UVAPF<sub>0</sub> and UVAPF<sub>x</sub> values have been calculated based on the static as determined (Preliminary) SPF value of 43.7. The Official Journal of the European Union 22nd Sept 2006 requires that this value should be at least 0.333 and the sample <b>PASSES</b> this requirement. The value may vary if the label SPF is different (see chart below). Additionally, the Critical Wavelength must be 370nm or greater and the sample was found to <b>PASS</b> this test requirement.</p>
<p>2. <b>Critical Wavelength</b></p> <p><b>[Post Irradiation]= 373.7 nm</b></p> <p><b>PASS</b></p>	<p>The Critical Wavelength was found to be equal or greater than 370nm and the product <b>PASSES</b> this part of the test requirement</p>

**Ratio vis Category Description for European Union Labelling**

SPF Found	Category Description		Requirement	UVAPF Ratio (for varied label SPF)
Tested SPF	Label SPF			
6-14	6	Low	Compulsory	3.55 PASS
	10	Low	Compulsory	2.13 PASS
15-29	15	Medium	Compulsory	1.42 PASS
	20	or	Compulsory	1.06 PASS
	25	Moderate	Compulsory	.853 PASS
30-59	30	High	Compulsory	.711 PASS
	50	High	Compulsory	n/a
60 or higher	50+	Very High	Compulsory	n/a

This compliance report should be read in conjunction with the attached pages 1-3 describing the required procedure as defined in ISO 24443

  
**Signed:** Craig Dennyson