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Warsaw, 21.07.2020

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REPORT FROM SPF in-vivo RESEARCH

B - 72080/1177/20/SPF

Sunscreen "Baby & Family" SPF 50

submitted by

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<p>1. Basis for conducting the research</p>	<ul style="list-style-type: none"> • Order of 18.06.2020 with the granted No.B-72080/1177/20/SPF and samples of the tested product. • Material for the tests: samples of the product supplied by the Client. • Qualitative composition of the product according to INCI enclosed by the Client. <ul style="list-style-type: none"> • Beeswax - Cera Alba • Shea - BUTYROSPERMUM PARKII BUTTER • Cacao - THEOBROMA CACAO SEED BUTTER • Coconut - COCOS NUCIFERA OIL • Carrot - Helianthus annuus seed oil, daucus carota root extract, rosmarinus officinalis leaf extract • Raspberry - Rubus Idaeus Seed Oil • Almond - PRUNUS AMYGDALUS DULCIS OIL • Coco-Caprylate/Caprate - Coco-Caprylate/Caprate • Vit E - Tocopherol • Zinc Oxide - Zinc Oxide <ul style="list-style-type: none"> • Reference Sunscreen Formulation P2 prepared and certified according to the ISO 24444 “Cosmetics -- Sun protection test methods -- In vivo determination of the sun protection factor (SPF)”.
<p>2. Characteristics of the product</p>	<p>Sample for the laboratory test: Appearance: homogeneous, shiny emulsion. Fragrance: faint. Packaging: substitute – plastic container with pump form applicator, with a label giving method of used.</p>
<p>3. Scope of the research</p>	<p><i>Determining the value of sun protection factor SPF with the use of ISO 24444 “Cosmetics -- Sun protection test methods -- In vivo determination of the sun protection factor (SPF)”.</i></p>
<p>4. Characteristics of UV source</p>	<p>Solar simulator SOLAR Light Co. XPS200 Xe (xenon arc lamp) UVB Detector PMA 2105 S/N:7796 Wavelength UV range: 290 – 400nm</p>
<p>5. The amount of product spread on 1cm² of skin</p>	<p>(2,00 ± 0,05) mg</p>

<p>6. Terms</p>	<p>SPF – sun protection factor</p> <p>MED_u – minimum dose of UVB causing reddening of the skin which was unprotected after 16-24h from irradiation</p> <p>MED_p – minimum dose of UVB causing reddening of the skin which was protected after 16-24h from irradiation</p>
<p>7. The selection of volunteers for the research</p>	<p>The researches were conducted under control of a MD Dermatologist on 10 volunteers in the Application and Dermatological Researches Team ITA– TEST.</p> <p><i>The selection of volunteers was made by the dermatologist in accordance with the ISO 24444 and standard working procedures ITA – TEST no. 01/DA ed. 2 of on 12.02.2013 and 24 /DA ed. 4 of on 22.02.2013 considering the inclusion and non-inclusion criteria.</i></p> <p>Before the beginning of the research, the body skin of all people taking part in it was thoroughly examined by the dermatologist; apart from that, interviews with all of the volunteers were performed in order to eliminate the persons, who cannot participate in the researches of this type.</p> <p>The volunteers were clearly informed, verbally and in writing, regarding the nature of the study, the timetable, constraints and possible risks. They all gave their written informed consent before participation in the study.</p> <p>The volunteers included in SPF test were only phototypes II or III according to Fitzpatrick and had ITA⁰ >28⁰ (measured by colorimetric methodology Spectrophotometer KONICA MINOLTA 600d) and were untanned on the test area.</p> <p><i>At the beginning of the research the skin of all volunteers had no morbid symptoms and revealed no tendency for irritation.</i></p>

8.	The method of conducting research	The study was conducted in accordance with the methodology referred to in the PN-EN ISO 24444 standard "Cosmetics - Sunscreen testing methods - Determination of the sun protection factor (SPF) in vivo".
9.	Duration of the research	The researches which lasted from 02.07.2020 to 21.07.2020 were finished by all 10 persons taking part in the tests.

RESULTS OF THE RESEARCH:

*On the basis of researches performed with the use of SPF in-vivo method
the mean value of sun protection factor of the tested*

Sunscreen "Baby & Family" SPF 50

has been determined, which amounts to 58,7 ± 2,1

*Name and signature of the person performing the
research and compiling the report from the
research*

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Katarzyna LEWANDOWSKA

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responsible for the dermatological evaluation*

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Dyrektor Operacyjny

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The results of the research relate exclusively to the testing product.

END OF REPORT

Report from SPF in-vivo research **ITA – TEST B- 72080/1177/20/SPF**

Annex No. PO-06-07 Edition No. 1, valid from: 04.11.2019

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SPF in-vivo results

Name of product: Sunscreen "Baby & Family" SPF 50

Instrument: Solar Simulator SOLAR XPS200 Xe

No	Age/Gender	Phototype	Skin ITA ⁰	MEDu	MEDp of standard P2	MEDp of tested product	SPFi of tested product	SPFi of standard P2
				mJ/cm ²				
1	55/W	II	57	22,40	351,20	1254,40	56,0	15,7
2	49/W	II/III	50	25,00	392,00	1568,00	62,7	15,7
3	39/W	II/III	46	30,00	470,40	1881,60	62,7	15,7
4	49/W	II/III	46	30,00	470,40	1806,30	60,2	15,7
5	60/W	II	51	25,00	392,00	1505,30	60,2	15,7
6	25/W	II	52	25,00	392,00	1505,30	60,2	15,7
7	23/W	II	53	25,00	392,00	1400,00	56,0	15,7
8	25/W	II	52	25,00	392,00	1400,00	56,0	15,7
9	53/W	II	56	22,40	351,20	1254,40	56,0	15,7
10	42/W	II	55	22,40	351,20	1264,50	56,5	15,7
Mean SPF							58,7	15,7
STDV							2,9	0,0

FINAL RESULT for product

SPFn= 58,7
s= 2,9
c= 2,1
CI[%]= 3,6
95%CI= 56,6 - 60,8

SPFn - mean SPF for 10 subjects

s - standard deviation

95%CI - confidence interval of mean SPF

C - uncertainty of measurement

