

REPORT No. 914993-1/25/GDA/PK

Sponsor		Sample description <i>(according to declaration of the Sponsor)</i>
MEASUR OY MANNERHEIMINTIE 117 00280 HELSINKI FINLAND		RANGIFER TARANDUS (REINDEER) SUBCUTANEOUS RENDERED FAT (TALLOW) (REF: LC-RT-2025) BATCH: RT46251 PRODUCTION DATE: 13-11-2025 EXPIRY DATE: 13-11-2027
Sample reception date:	21.11.2025	
Start of the study:	18.12.2025	
End of the study:	19.12.2025	Sample status: no objections
Report date:	07.01.2026	Sample received from the Client

**REPORT OF EVALUATION OF THE SKIN PROTECTIVE
EFFECT AGAINST IRRITATIONS USING
TRANSEPIDERMAL WATER LOSS MEASUREMENT (TEWL)**

CONTENT OF THE REPORT

1.	INITIAL REPORT DESIGN.....	4
1.1	STUDY OBJECTIVES.....	4
1.2	ETHICAL CONDUCT OF THE STUDY	4
1.3	QUALITY CONTROL.....	4
1.4	RELEVANCE OF THE STUDY	5
1.5	ETHICAL COMMITTEE.....	5
1.6	INFORMATION OF THE TEST SUBJECT AND INFORMED CONSENT FORM.....	5
1.7	CONFIDENTIALITY OF THE SUBJECT	6
1.8	THE BASIS TO CONDUCT THE STUDY.....	6
2.	INVESTIGATIONAL PRODUCT	7
3.	STUDY DESCRIPTION.....	7
3.1	AIM OF THE STUDY.....	7
3.2	GENERAL PRINCIPLE OF THE STUDY	7
3.3	TESTING METHODOLOGY	8
3.3.1	Instrumental test of transepidermal water loss (TEWL) by using Tewameter® TM 300 8	
3.3.2	Induction of skin irritation by patch test	8
3.4	SUSPENSION OF THE STUDY	8
3.5	ADVERSE EVENTS	9
3.6	RAW DATA RECORDING	9
4.	DESCRIPTION OF SUBJECTS	10
5.	TRIAL SCHEDULE	12
6.	RESULTS.....	13
6.1	CHARACTERISTIC OF SUBJECTS.....	13
6.2	The instrumental test result.....	14
6.2.1	Instrumental test of transepidermal water loss (TEWL) by using Tewameter® TM 300	14
7.	CONCLUSION.....	16
8.	APPENDIX	17
8.1	The individual results of transepidermal water loss (TEWL)	17
9.	SIGNATURES	18

REPORT No. 914993-1/25/GDA/PK

RANGIFER TARANDUS (REINDEER) SUBCUTANEOUS RENDERED FAT (TALLOW)

(REF: LC-RT-2025), BATCH: RT46251

STUDY REFERENCE

SPONSOR	MEASUR OY MANNERHEIMINTIE 117 00280 HELSINKI FINLAND
STUDY MONITOR	Laura Ahola
INVESTIGATING CENTRE	J.S. HAMILTON POLAND SP. Z O.O. BAJANA 3D 80-463 GDAŃSK POLAND
PROJECT MANAGER	Marta Sadowska
MAIN INVESTIGATOR	Berenika Olszewska, MD, PhD Registered N°2880077
ETHICAL COMMITTEE APPROVAL	12.12.2025

1. INITIAL REPORT DESIGN

1.1 STUDY OBJECTIVES

This study intended to check the effectiveness of the investigational product **RANGIFER TARANDUS (REINDEER) SUBCUTANEOUS RENDERED FAT (TALLOW) (REF: LC-RT-2025), BATCH: RT46251** in a panel of healthy human subjects after application under normal conditions of use.

1.2 ETHICAL CONDUCT OF THE STUDY

The described study was conducted in the spirit of the Good Clinical Practice defined by the ICH Topic E6 "Note for Guidance and good clinical practice" (CPMP/ICH/135/95), the Helsinki Declaration (1964, WMA) and its successive updates. The study was conducted according to internal J.S Hamilton's Standard Operating Procedures and to the study protocol defined by the sponsor. All study events recorded during the study was reported. Controls on data veracity and conformity with the protocol was performed and confirmed by persons participating in the study.

SCOPE OF TESTS COMPLIANT WITH:

- Regulation of the European Parliament and of the Council (EC) No. 1223/2009 of 30 November 2009 on cosmetic products.
- Cosmetics Europe – The Personal Care Association (previously COLIPA) Guidelines "Product Test Guidelines for the Assessment of Human Skin Compatibility 1997."
- Cosmetics Europe – The Personal Care Association (previously COLIPA) Guidelines for the Evaluation of the Efficacy of Cosmetic Products 2008.
- Cosmetics Europe - The Personal Care Association (previously COLIPA) GUIDELINES FOR COSMETIC PRODUCT CLAIM SUBSTANTIATION Revising and expanding the Colipa Guidelines on Efficacy (2001/rev. 2008) 22 May 2019.

1.3 QUALITY CONTROL

The study was performed in compliance with the standard operating procedures (SOPs) of the investigating centre, established according to the regulations in force.

The investigator, in charge of the performance of the study, made sure of the quality of the work of the technical staff, particularly concerning the respect of the protocol and its appendices, the collection of raw data, the management of the investigational product.

1.4 RELEVANCE OF THE STUDY

Based on the existing data, the main aim of the study was to evaluate of the efficacy of the investigational product **RANGIFER TARANDUS (REINDEER) SUBCUTANEOUS RENDERED FAT (TALLOW) (REF: LC-RT-2025), BATCH: RT46251**. The purpose of the study was to examine the direct influence of the investigational product on the transepidermal water loss (TEWL).

The skin examination was performed by the technician, controlled by the investigator having the appropriate experience.

1.5 ETHICAL COMMITTEE

According to the procedure of investigating centre, the protocol, the informed consent form and the preclinical information concerning the investigational product **RANGIFER TARANDUS (REINDEER) SUBCUTANEOUS RENDERED FAT (TALLOW) (REF: LC-RT-2025), BATCH: RT46251** was submitted to the internal committee of the investigating centre.

The committee got sure that the project meets the conditions of optimal scientific rigor, assessed its general relevance, the suitability between the aim followed and the means implemented and gave an opinion on the protection of the test subjects. The study does not begin without the approval of the Survey committee.

1.6 INFORMATION OF THE TEST SUBJECT AND INFORMED CONSENT FORM

The information about the study was given orally and as a written document to each test subject before the start of the study. This information is accessible, understandable and suitable for each test subject. This information was completed, if necessary, by the investigator (or the competent person designated) who answered all the questions asked by the test subject.

The content of this document particularly specified:

- the aim of the study,
- the study design and the experimental conditions of the study,
- the approximate number of test subjects involved in the study,
- the expected duration of the study (for the test subject),
- the number of visits to the investigating centre,
- the study constraints (obligations, restrictions and troubles),

REPORT No. 914993-1/25/GDA/PK

RANGIFER TARANDUS (REINDEER) SUBCUTANEOUS RENDERED FAT (TALLOW)

(REF: LC-RT-2025), BATCH: RT46251

- that skin site photographs can be taken and in this case, that the test subject would not be recognizable,
- the opinion of the internal committee,
- the person to contact and the contact telephone number,
- that the personal data of the test subject would be confidentially treated by the study staff, available for the study monitor and possibly consulted (with the authorization of the test subject) by the auditors and the members of the internal committee,
- the ban on taking part simultaneously in other clinical studies,
- the amount of the compensation for the constraints to be undergone,
- the period of exclusion at the end of the study during which the test subject would not be allowed to take part in another clinical study,
- the confidential treatment of the study data,
- that the anonymity of the test subject was preserved,
- the freedom for the test subject to refuse to participate or to stop his participation at any time without any justification and any legal consequences.

At the beginning of the study, two copies of this document was dated and signed simultaneously by the test subject and by the investigator or the competent person designated. One copy was given to the test subject, the other was kept at the investigating center.

1.7 CONFIDENTIALITY OF THE SUBJECT

The information concerning the subject, required for his recruitment, inclusion and particularly that related to his health, obtained during the medical examination, formed part of medical secret and was confidentially treated.

Subject data (name and surname) are coded when the subject is included in the study in order to preserve his anonymity.

1.8 THE BASIS TO CONDUCT THE STUDY

- Samples delivered by the Sponsor.
- The qualitative composition of the product delivered by the Sponsor.
- The results of microbiological purity of the product provided by the Sponsor.
- Negative result of dermatological patch test provided by the Sponsor.

The Sponsor is responsible for conformity with the declared quality composition of the product, as well as microbiological purity test of the delivered samples.

2. INVESTIGATIONAL PRODUCT

Parameter	Description
Product reference	RANGIFER TARANDUS (REINDEER) SUBCUTANEOUS RENDERED FAT (TALLOW) (REF: LC-RT-2025) BATCH: RT46251 PRODUCTION DATE: 13-11-2025 EXPIRY DATE: 13-11-2027
Intended use	The product is intended for skin care.
Method of use	Single application according to the testing methodology.

Contraindications for use of the product are: acute inflammation of the place of application, requiring pharmacological treatment, and allergy recognized or hypersensitivity to any of its ingredients.

The Sponsor is responsible for conformity of declared composition of the product with Regulation 1223/2009.

3. STUDY DESCRIPTION**3.1 AIM OF THE STUDY**

The aim of the study was to evaluate the direct influence of the investigational product **RANGIFER TARANDUS (REINDEER) SUBCUTANEOUS RENDERED FAT (TALLOW) (REF: LC-RT-2025), BATCH: RT46251** on the transepidermal water loss (TEWL) to define skin protective effect against irritations in comparison with untreated zone on the panel of 11 subjects.

3.2 GENERAL PRINCIPLE OF THE STUDY

The investigational product **RANGIFER TARANDUS (REINDEER) SUBCUTANEOUS RENDERED FAT (TALLOW) (REF: LC-RT-2025), BATCH: RT46251** was applied on subjects' forearm. The product has to be applied by the technician at laboratory before applying the SLS patches.

3.3 TESTING METHODOLOGY

3.3.1 Instrumental test of transepidermal water loss (TEWL) by using Tewameter® TM 300

The aim of the test was to confirm that the investigational product presents skin protective effect against irritations (prevents water loss by epidermis and reinforces the hydro-lipid barrier of the skin). The test has been conducted using special measuring device manufactured by Courage + Khazaka Company – Tewameter® TM 300. Instrumental study has been performed on the forearm skin. Tested zones were indicated on the forearm of 11 subjects. The application zone was 12 mm diameter. One zone treated by SLS was kept untreated by product. Directly before tests the subject' skin should not be treated by other cosmetics. Before the application of the product (D0), the measurements of skin transepidermal water loss (TEWL) were done on each tested zone. The product was applied on treated zone 15 minutes before applying patch test chambers with SLS. The second measurement was performed 15 minutes after removal of the patch test chambers (D1t15') and were done on each tested zones treated with SLS. The study has been carried out in an air conditioned room in the temp. of $20\pm 2^{\circ}\text{C}$ and relative humidity $50\pm 10\%$. The product efficacy is confirmed in case of the positive results obtained in more than 50% of subjects.

3.3.2 Induction of skin irritation by patch test

After product application SLS was applied to the skin in a patch to each zone on one arm. Patch (skin) test is the basic kind of test confirming contact skin irritation. A sodium lauryl sulphate (SLS) preparation (1% solution) in amount 0,02 mg/ml by the Finn Chamber® fixed on Scanpor® by SmartPractice® was applied on the tested area. Finn Chamber® is a patch test device which provides good occlusion because of the chamber design. The chamber is made of aluminum, the 12 mm inner diameter. The technician removed the patch after 24 hours (D1) since the patch application.

3.4 SUSPENSION OF THE STUDY

The investigator has to stop the study if it shows a risk for the health or the integrity of the test subjects. The date of the suspension and the reasons has to be carefully documented by the investigator in the case report form (CRF).

The investigating centre has to inform promptly the study monitor, by phone, fax or e-mail. The sponsor was able to stop the study at any time for administrative reasons or other ones.

3.5 ADVERSE EVENTS

According to individual sensitivities, any product can induce a minor reactivity, defined as follows: any slight local reaction of intolerance or sensation of discomfort, occurring in a test subject during a clinical study, completely reversible, expected, due to the investigational product and which does not question the observance of the study protocol or the good implementation of the study.

- **adverse event:** any harmful event with or without relationship with the investigational product, occurring in a test subject during a clinical study.

- **serious adverse event:** any adverse event that causes death, endangers test subject's life, induces an hospitalization or the prolongation of the hospitalization, causes severe and lasting incapacity or handicap or induces congenital anomaly or malformation.

The investigator has to accurately describe the adverse event and has to appreciate its seriousness. According to the corresponding procedure of the investigating centre, he has to define the link of causality between this event and the investigational product, on the basis of the symptoms, the chronology, the results of the possible specific complementary tests undertaken and any available information.

The imputability of the investigational product has to be assessed according to the scale: very likely, likely, possible, questionable, excluded. In case of adverse effect (with a quite possible relationship with the investigational product), the investigator has to ensure the clinical follow-up of the test subject concerned, as long as necessary.

All serious adverse events had to be notified as soon as possible and reported within 24 hours at the latest, by the investigating centre to the Sponsor. A listing with all the adverse events and special situations (e.g. ineffectiveness) observed during the study should be sent to the Sponsor (sponsor project manager) after study completion.

3.6 RAW DATA RECORDING

All the data gathered during the study was recorded accurately, legibly and indelibly by the investigator and the technician in charge of the study, under his control, in the case report form. This document was initialed by the technician or investigator.

At the end of the study, the information concerning the investigational product, the information concerning the test subjects (CRF(s), daily logs, informed consent forms) and the information related to the conduct of the study (protocol signed by the sponsor, copy of this study report....) were filed and will be kept for 10 years, in the filing area of the investigating centre.

At the end of this period the study documentation will be destructed (after sponsor's authorization), unless he decides otherwise.

4. DESCRIPTION OF SUBJECTS

GENERAL INCLUSION CRITERIA	Healthy subject.	
	Sign an informed consent to participate in the study, were informed about the purpose of the study, the manner of its conduct and the possible side effects.	
	Skin without irritation and changes requiring pharmacological treatment.	
	Phototype: I – III on Fitzpatrick scale.	
	Cooperative subject, aware of the necessity and duration of controls.	
SPECIFIC INCLUSION CRITERIA	Amount of subjects:	11 subjects
	Gender:	Women, men
	Age:	18+
	Skin type:	All, 100% non-sensitive
NON INCLUSION CRITERIA	Subjects who use any treatment on the studied zone (forearms).	
	Pregnant or breastfeeding woman or woman planning a pregnancy during the study.	
	Subject presenting a pathology on the studied zone (ex. severe acne, scars).	
	History of drug or sun hypersensitivity, recurrent dermatological diseases or recent sunburn.	
	Use of topical or systemic treatment during the previous weeks liable to interfere with the assessment of the tolerance of each studied product.	
	Subject enrolled in another study during the study period (concerning the studied zone).	
	Subject considered by the investigator to be likely not compliant to the protocol.	
INFORMED CONSENT	After an explanation of the protocol, reasons for the study, possible associated risks and potential benefits of the treatment each subject signed an informed consent form before starting the study.	

REPORT No. 914993-1/25/GDA/PK

RANGIFER TARANDUS (REINDEER) SUBCUTANEOUS RENDERED FAT (TALLOW)

(REF: LC-RT-2025), BATCH: RT46251

The qualified subjects must not use any products before the study and during the study. The product was applied by technician according to the testing methodology.

Skin reactivity, history of atopy and contraception were documented by the investigator, in the case report form (CRF). No medication likely to interfere with the study was allowed during the study; however, if the health state of the subjects justifies some medication (particularly anti-inflammatory drugs), any information relating to this concomitant medication had to be carefully documented in the case report form. The investigator had to exclude the test subjects taking concomitant medication likely to interfere with the study and the interpretation of the results.

The test results may be affected by such factors as:

- the skin condition at the site of product application,
- inter-individual genetic characteristics.

5. TRIAL SCHEDULE

D0:

- The subjects came to the laboratory without having applied any product on the studied zone and without having used any skin care products on the arms three days prior.
- Subjects signed informed consent forms in duplicate.
- Verification of inclusion and non-inclusion criteria.
- The trained technician determined and examined the study zones.
- The measurements of the transepidermal water loss on studied zones.
- Application of the product on treated zone.

D0 t15':

- Application of patches with SLS on every studied zone.

D1 t0:

- The subjects came to the laboratory without having applied any product on the studied zone.
- The trained technician examined the study zones.
- Removal of the patches with SLS.

D1 t15':

- The measurements of the transepidermal water loss on studied zones.
- Record of possible adverse reactions.

6. RESULTS

6.1 CHARACTERISTIC OF SUBJECTS

Subject's no.	Subject's code	Gender	Age	Skin type	Sensitivity	Study initiation date	Study completion date						
1.	LES WI	W	24	D	N	18.12.2025	19.12.2025						
2.	MUL NA	W	26	N	N	18.12.2025	19.12.2025						
3.	RZY KA	W	25	N	N	18.12.2025	19.12.2025						
4.	RIC PA	W	25	N	N	18.12.2025	19.12.2025						
5.	WEN JU	W	24	N	N	18.12.2025	19.12.2025						
6.	ZAM PA	W	34	D	N	18.12.2025	19.12.2025						
7.	STA KA	W	25	D	N	18.12.2025	19.12.2025						
8.	JAN JA	M	66	D	N	18.12.2025	19.12.2025						
9.	OST MA	M	24	N	N	18.12.2025	19.12.2025						
10.	JAN AG	W	38	D	N	18.12.2025	19.12.2025						
11.	JUR ED	W	41	D	N	18.12.2025	19.12.2025						
		WOMAN (W)	9	MEAN	32	DRY (D)	6	YES (Y)	0	NUMBER OF SUBJECTS, WHO STARTED THE STUDY	11	NUMBER OF SUBJECTS, WHO FINISHED THE STUDY	11
		MAN (M)	2	MIN	24	NORMAL (N)	5	NO (N)	11				
				MAX	66								

6.2 The instrumental test result

6.2.1 Instrumental test of transepidermal water loss (TEWL) by using Tewameter® TM 300

Assumption:

The product does not affect on the hydro-lipid barrier of the skin, when the parameter value does not change in comparison to the untreated zone.

The product reinforces the hydro-lipid barrier of the skin and the parameter value decreases in comparison to the untreated zone.

Table 1. Tewameter® TM 300. The results of transepidermal water loss measurements (TEWL) after 15 minutes from removing the SLS patch (D1t15') in comparison to the untreated zone in g/h/m².

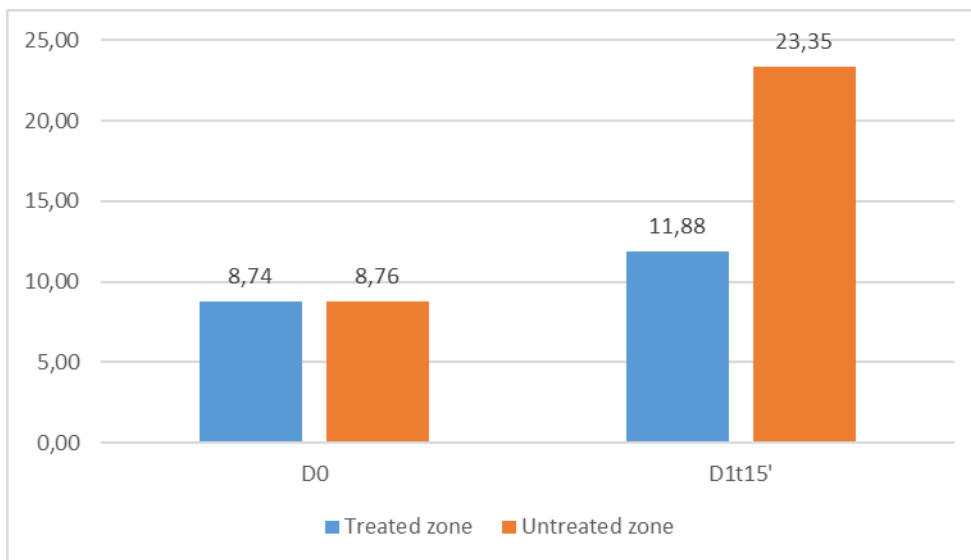
The results of transepidermal water loss measurements (TEWL) in comparison to the untreated zone in g/h/m ²	
Subject's no.	Δ D1t15'
(1.)*	AV
2.	-12,21
3.	-9,92
4.	-9,72
5.	-13,03
6.	-10,92
7.	-12,72
8.	-11,49
9.	-9,74
10.	-14,08
11.	-10,59
Mean	-11,44
Min	-14,08
Max	-9,72
SD	1,52
Median	-11,20
Δ%	-131%
% subjects with positive effect	100%

Legend:

(1)* The result was not included in the calculation.

AV – aberrant value

Graph 1. The average results of the measurements transepidermal water loss level (TEWL) at each stage of the study.



Conclusion: The product **RANGIFER TARANDUS (REINDEER) SUBCUTANEOUS RENDERED FAT (TALLOW) (REF: LC-RT-2025), BATCH: RT46251** reinforces the hydro-lipid barrier of the skin after application, thus presents skin protective effect against irritations.

The individual results of treated and untreated zones in comparison to the initial state before SLS treatment are presented in the Appendix **8.1**.

7. CONCLUSION

Under these study conditions, it is concluded that the product **RANGIFER TARANDUS (REINDEER) SUBCUTANEOUS RENDERED FAT (TALLOW) (REF: LC-RT-2025), BATCH: RT46251:**

- was tested by 11 subjects,
- properties declared by the Client have been confirmed basing on instrumental test:
 - reinforces the hydro-lipid barrier of the skin after application, thus presents skin protective effect against irritations (average 131%).

8. APPENDIX
8.1 The individual results of transepidermal water loss (TEWL)

Table 2. Tewameter® TM 300. The results of transepidermal water loss (TEWL) measurements before product application and SLS treatment (D0) and 15 minutes after the removal of the patch test chambers (D1t15') in g/h/m².

Values of TEWL in g/h/m ²				
Subject's no.	Treated zone		Untreated zone	
	D0	D1t15'	D0	D1t15'
(1.)*	(7,69)*	AV	(7,58)*	AV
2.	6,91	9,30	6,95	21,55
3.	7,53	10,47	7,52	20,38
4.	8,51	13,31	8,78	23,30
5.	7,87	11,51	7,80	24,47
6.	7,40	10,30	7,44	21,27
7.	9,45	12,66	9,56	25,49
8.	11,72	15,00	11,79	26,56
9.	11,78	14,55	11,71	24,22
10.	8,82	11,42	8,70	25,38
11.	7,40	10,29	7,36	20,84
Mean	8,74	11,88	8,76	23,35
Min	6,91	9,30	6,95	20,38
Max	11,78	15,00	11,79	26,56
SD	1,76	1,93	1,76	2,20
Median	8,19	11,47	8,25	23,76

Legend:

(*)** The result was not included in the calculation.

AV – aberrant value

9. SIGNATURES

Project Manager:	Marta Sadowska Project Manager	Sign and date  07.01.2026
Data Analyst:	Karolina Wodka-Suchocka Cosmetic Products Research Senior Specialist	Sign and date  07.01.2026
Quality Assurance Auditor:	Julia Maślana Cosmetic Products Research Senior Specialist	Sign and date  07.01.2026
Dermatologist:	Berenika Olszewska, MD, PhD Dermatologist - Venereologist 2880077	Sign and date  07.01.2026 Registered N° 2880077

Authorized by: Marta Sadowska, Project Manager, (qualified electronic signature)
Berenika Olszewska, MD, PhD Dermatologist – Venereologist 2880077

The test report bears the certified electronic seal of J.S. Hamilton Poland Sp. z o.o.

Laboratory: ul. Bajana 3D, 80-463 Gdańsk, Poland

The results relate to the analysed samples only.

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THE END OF THE REPORT