

TEST REPORT
21 24 03389

PATCH TEST REPORT

NOVASIN

INTRADERMA

NOVEMBER 2021

48 HOURS PATCH TEST SKIN TOLERANCE ASSESSMENT STUDY REPORT

CERTIFICATE ID	: 2020-13723 / 21 24 03389
DISTRIBUTOR	: COSTAS GAIFYLLIAS
PRODUCT MANUFACTURED BY	: GAVRILIS GROUP
RECEIPT DATE	: 17/07/2020
STUDY PERIOD	: 03/08/2020 - 07/08/2020
LAB ID	: 21 24 03389
PRODUCT NAME	: NOVASIN
BRAND	: NOVASIN
PRODUCT TYPE	: LEAVE ON, LIQUID
LOT	: NOT LISTED
STUDY SPONSOR	: QACS Ltd
METHOD	: 48 Hours occlusive patch tests

ASSESSMENT OF SKIN TOLERANCE OF A COSMETIC PRODUCT AFTER A SINGLE APPLICATION DURING 48 HOURS OCCLUSIVE PATCH ON 10 VOLUNTEERS

TABLE OF CONTENTS

REGULATORY, CONFIDENTIALITY AND ARCHIVING	3
STUDY SUMMARY / ABSTRACT	4
TYPE AND OBJECTIVE OF THE STUDY	5
PANEL STUDIED, INCLUSION / NON INCLUSION CRITERIA	5
TEST MATERIAL	6
METHOD PRINCIPLE	7
CALCULATIONS	8
RESULTS	9
DISCUSSION AND CONCLUSION	11
RESULTS AUTHENTICITY	11

REGULATORY, CONFIDENTIALITY AND ARCHIVING

Regulatory

The study has been conducted by suitably trained, qualified and experienced personnel in accordance with the Declaration of Helsinki (1964) and subsequent revisions (World Medical Association, 1989, Council for International Organizations of Medical Sciences and the World Health Organization, 1993) and taking into consideration the requirements of Directives 2001/20/EC and 2005/28/EC relating to the implementation of good clinical practice in the conduct of clinical trials on medicinal products for human use and the COLIPA Guidelines edited on 1997 for the "Product Test Guidelines for the Assessment of Human Skin Compatibility".

Precautions have been taken to avoid the possibility that participants in the study might experience undesirable effects.

Ethical requirements which have been taken into consideration in the planning of the study include:

- i) participants are informed volunteers selected after application of inclusion/non inclusion criteria
- ii) participants are aware of the purpose and nature of the study and of any foreseeable risks involved in participation in the study and have given written informed consent before the study starts;
- iii) a safety evaluation / INCI review has been conducted on the product tested, before the study starts.
- iv) the test procedures conforms to national regulations.
- v) all reasonable care has been taken to avoid causing excessive skin reactions or other adverse health effects in the participants during the study;
- vi) safety procedures are in place in the event of any unexpected/adverse reactions, including appropriate medical cover;
- vii) volunteers are rewarded for their time, inconvenience, etc., but the reward is not so great that it would persuade them to participate.

Confidentiality

Requirements of Law 2472/1997 on the Protection of Individuals with regard to the Processing of Personal Data and of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) and amendments are taken into consideration. Processing of volunteers' personal data is carried out by doctors or other persons rendering medical services, provided that the Controller is bound by medical confidentiality or other obligation of professional secrecy, provided for in Law or code of practice, and data are neither transferred nor disclosed to third parties. Processing is carried out within the laboratory premises and relates to personal data of the volunteers, provided that the latter have given their consent and that such data are neither transferred nor disclosed to third parties. The anonymity of the volunteers is respected, no personal records have been kept apart from the ones required from National and European Laws. Each volunteer can be identified by the Investigator, the doctors and all the persons in charge of the study, thanks to his personal volunteer's code.

Archiving

The laboratory book which contains all the information (raw data and results) regarding the study and the study reports are kept in the laboratory archives for 2 years.

STUDY SUMMARY / ABSTRACT

ASSESSMENT OF SKIN TOLERANCE OF A COSMETIC PRODUCT AFTER A SINGLE
APPLICATION DURING 48 HOURS OCCLUSIVE PATCH ON 10 VOLUNTEERS

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PRODUCT NAME	: NOVASIN
BRAND	: NOVASIN
PRODUCT TYPE	: LEAVE ON, LIQUID
LOT	: NOT LISTED
STUDY SPONSOR	: QACS Ltd
TEST METHOD	: Single application - 48 Hours occlusive patch tests
TIME(S) OF ASSESSMENT	: 1 hour after patch removal, then after 24 & 48 hours (72 hours)
PANEL	: 10 healthy adult volunteers
APPLICATION AREA	: On the back
QUANTITY OF PRODUCT	: 0.02 ml
METHODOLOGY	: Patch test is the assessment of skin tolerance of a cosmetic product and involves a single application during 48 hour occlusive patch test. Negative controls are used to facilitate evaluation. Treatment sites are assessed before the first application of the test material (baseline), after treatment at 30 minutes, upon patch removal and at 24 and 48 hours after patch removal. The patch is applied on the skin for 48 hours. Skin reactions are scored throughout the test by the same experienced assessor, a dermatologist, who made the baseline assessment and under the same lighting source, following a pre-defined scoring scale. The quantification of the skin irritation is given through a numeric scale (erythema, oedema, dryness/desquamation, vesicles). The average irritant score of the product tested is calculated from the average of the reactions obtained for each volunteer, allowing to rank the product from "non irritant to very irritant".
RESULT	: The average irritant score of the product is 0.00.
CONCLUSION	: According to the experimental conditions of the study, the test product, can be considered as Non irritant regarding its primary skin tolerance.

The samples will be stored by the laboratory for 2 months from the end test date.
The study report and raw data will be stored by the laboratory for 2 years.

TYPE AND OBJECTIVE OF THE STUDY

Skin compatibility is defined as the absence of skin irritation under normal conditions of use and reasonably foreseeable misuse, taking into account objective reactions as well as subjective responses such as stinging, burning or itching. Skin irritation is defined as non-immunological local skin inflammation.

This test involves single application, 48 hour occlusive patch test.

Small quantity (0.02mL) of the finished product is applied in an occlusive patch. The patch is then applied on adult volunteers, directly on the skin of their back, for 48 hours.

After the patch is removed, the dermatologist performs a clinical evaluation based on a pre-determined scale.

The objective of the test is to determine whether or not the product is likely to induce skin irritation under normal conditions of use and reasonably foreseeable misuse conditions.

PANEL STUDIED, INCLUSION / NON INCLUSION CRITERIA.

Number of volunteers

A number of 10 volunteers has been recruited to satisfy the objectives of the test.

Panel characteristics

Volunteers are selected on the basis of inclusion and non-inclusion criteria. The volunteers satisfy all the inclusion criteria and are not in conflict with any of the non-inclusion criteria, had a medical examination (health certificate) and a dermatological examination. The volunteers are clearly informed, verbally and in writing, regarding the nature of the study, the timetable, constraints and possible risks. They give their written informed consent before participation in the study.

Inclusion criteria

- ✓ Informed volunteers who agree to follow the conditions specified
- ✓ where appropriate of relevant age : 18 -70 years old
- ✓ where appropriate of relevant gender : female and/or male
- ✓ where appropriate of relevant origin and health
- ✓ free from any dermatological problems on the area studied
- ✓ meet the specific study criteria on skin type
- ✓ able to understand the Greek language and the study requirements

Non inclusion criteria

- ✓ volunteers who do not meet the inclusion criteria
- ✓ pregnancy or nursing condition
- ✓ irritated skin on test site(s)
- ✓ blemishes, marks (e.g. tattoos, scars, sunburn) on the test site(s)
- ✓ medication which may affect skin response and/or past medical history
- ✓ presenting skin pathology which may interfere with the aim(s) of the study
- ✓ presenting contact allergy to one of the ingredients of the tested product
- ✓ participation in another simultaneous study
- ✓ participation in a previous study without an appropriate rest period between studies
- ✓ minors or majors protected by the law and people admitted in a sanitary or social institution for other purpose than research
- ✓ persons deprived of liberty by legal or administrative decision, patients in emergency situation
- ✓ volunteers who refused to give their informed consent.

Study constraints

During the study, the volunteers are asked:

- ✓ Not to put any product or water on the patches area.
- ✓ Not to expose themselves to UV.
- ✓ To avoid all intense sportive activities that could remove the patch.
- ✓ Not to take aspirin, anti-histaminics, corticoids, anti-inflammatories and any other treatment decreasing or avoiding inflammations or allergies or interfering with the skin metabolism.

Volunteers withdrawals

Participants will be eliminated for the following reasons:

- ✓ they do not follow the conditions of the Study Information Sheet;
- ✓ they suffer any illness or accident or develop any condition during the study which could affect the outcome of the study;
- ✓ they no longer wish to participate in the study.

TEST MATERIAL

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PRODUCT NAME	: NOVASIN
BRAND	: NOVASIN
PRODUCT TYPE	: LEAVE ON, LIQUID
LOT	: NOT LISTED
STUDY SPONSOR	: QACS Ltd
STORAGE CONDITIONS	: Away from heat and light

A sample of the tested product is kept at the QACS laboratories for 2 months after the end of the study. After this date and unless contrary requirement from the study sponsor, the product will be destroyed.

Equipment

The equipment used for the occlusive patch is composed of a small plastic cavity of 0.64 cm² with a filter tissue at the bottom which is made to receive the product to test. All this is fixed to a hypoallergenic non woven adhesive tape.

Dose level

The amount of test material applied to each patch is sufficient to fill the chamber and saturate the pad without overflowing from it when applied to the skin.

Test material application

The area on which the patch is applied is previously cleaned up with demineralised water and dried with cellulose cotton wool tissue.

The patches are put on the back of the volunteer.

The products are tested pure or diluted depending on their type and their use.

- ✓ Leave on products are tested pure.
- ✓ Rinse-off products are tested diluted at 5%.
- ✓ Detergents are tested diluted at 10%.
- ✓ Hydrophilic products are diluted in demineralised water
- ✓ Lipophilic products are diluted in mineral oil.
- ✓ Powders are put pure in the patch small cavity and then moistened sufficiently with a drop of mineral oil in order to ensure good contact with the skin and avoid the product dispersion while applying the patch.

Negative controls

Whilst this activity is always be on a case -by-case basis and will depend on the nature and type of study, the most common approach is to compare the results obtained for the test materials with those of suitable negative controls, or with similar materials.

A "negative" control is a patch without any product, applied in the same conditions as the product to be tested:

- ✓ if the product is tested pure: empty patch.
- ✓ if the product is tested diluted: patch with 0.02ml of the solvent used (demineralised water or mineral oil).

Visual assessment

Treatment sites are assessed before the first application of test material (baseline) and 30 minutes after patch application and 1, 24 and 48 hours after removal of the patches (the patches are left on the skin for 48 hours). Negative controls are used to facilitate evaluation.

Skin reactions are scored throughout the test by the same experienced assessor who made the baseline assessment and under the same lighting source, following a pre -defined scoring scale.

EXAMPLE OF SCORING SCALE

ERYTHEMA

- 0 = no evidence of erythema
- 0.5 = minimal or doubtful erythema
- 1 = slight redness, spotty and diffuse
- 2 = moderate, uniform redness
- 3 = strong uniform redness
- 4 = fiery redness

DRYNESS (SCALING)

- 0 = no evidence of scaling
- 0.5 = dry without scaling; appears smooth and taut
- 1 = fine/mild scaling
- 2 = moderate scaling
- 3 = severe scaling with large flakes

OEDEMA

- = absence of oedema
- + = presence of oedema

EXAMPLE OF SCORING SCALE

The results obtained are compared to those obtained on the control zone. The Average Irritation Index (or Primary Skin Irritation) is calculated as the average of readings obtained on the volunteers population.

$$\frac{[\sum (\text{marks T48})_{\text{vol 1 to vol n}}] / \text{number of readings}}{\text{Number of volunteers}}$$

Classification of the irritant potential

Average irritation index	Classification
0 - 0.08	Non irritant
0.08 - 0.16	Very slightly irritant
0.16 - 0.56	Slightly irritant
0.56 - 1	Moderately irritant
1 - 1.16	Irritant
> 1.16	Very irritant

RESULTS

Panel description

This study includes 10 healthy adult volunteers whom characteristics are described below.

Volunteers characteristics

VOL ID	VOLUNTEER CODE	SEX	AGE	CHARACTERISTICS	Events occurred during the study
1	1356	F	30	Sensitive skin	
2	1673	F	52	Normal skin	
3	1965	M	29	Sensitive skin	
4	2268	F	25	Sensitive skin	
5	2305	F	34	Normal skin	
6	2315	F	51	Normal skin	
7	2334	F	34	Normal skin	
8	2337	M	54	Normal skin	
9	2338	F	20	Normal skin	
10	2339	M	42	Normal skin	

Study withdrawals

None.

Skin reactions on the reference area

No skin reaction was noticed by the dermatologist on the reference area for all the volunteers.

Results analysis

Results obtained for each volunteer as well as the corresponding irritation index.

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STUDY SPONSOR : QACS Ltd
STORAGE CONDITIONS : Away from heat and light

VOL ID	VOLUNTEER CODE	SEX	AGE	ERYTHEMA	DRYNESS	OEDEMA	Total readings 48hrs
1	1356	F	30	0	0	0	0
2	1673	F	52	0	0	0	0
3	1965	M	29	0	0	0	0
4	2268	F	25	0	0	0	0
5	2305	F	34	0	0	0	0
6	2315	F	51	0	0	0	0
7	2334	F	34	0	0	0	0
8	2337	M	54	0	0	0	0
9	2338	F	20	0	0	0	0
10	2339	M	42	0	0	0	0

Total reactions 48hrs. all volunteers	0
Number of readings	1
Total irritation / number of readings	0
Irritation index	0.00
Result	Non irritant

After 48 hours of application, no skin reaction was observed, by the dermatologist on the test area.
The average irritation index obtained is equal to 0.00.
Readings are performed at 1, 24 and 48 hours after removal of the patches.

RESULTS (continued)

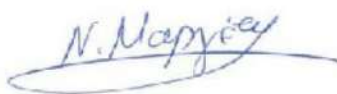
DISCUSSION AND CONCLUSION

In the experimental conditions, after a single application of 0.02 ml of the product under occlusive patch and during 48 hours, on 10 healthy adult volunteers and according to the scale used for the interpretation of the results, the NOVASIN can be considered as Non irritant regarding its primary skin tolerance.

Investigating doctor :

Nikoletta Margeti

Date : 07/08/2020


Nikoletta Margeti
Dermatologist - Venereologist

RESULTS AUTHENTICITY

The study concerned by this report was carried out under my responsibility, according to the experimental protocol and the quality plan of the QACS Ltd laboratory, and follows the good clinical practices.
All the observations and data recorded during this trial are reported in this study report.

I certify the rereading of this report and do agree with its content

Study Manager :

Georgia Stamatopoulou

Date : 07/08/2020


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