## TEST REPORT <br> 172401607

## PATCH TEST REPORT

PURE 45ML SHAMPOO FORMULA No:SH1-2394

MING FAI ENTERPRISE INTERNATIONAL Co. Ltd.

## 48 HOURS PATCH TEST SKIN TOLERANCE ASSESSMENT STUDY REPORT

```
CERTIFICATE ID
: 2017-4841 / 17 2401607
DISTRIBUTOR
: MING FAI
PRODUCT MANUFACTURED BY : MING FAI
RECEIPT DATE : 14/07/2017
STUDY PERIOD : 11/09/2017-15/09/2017
LAB ID : 172401607
LAB ID : 172401607
PRODUCT NAME : PURE 45ML SHAMPOO FORMULA No:SH1-2394
BRAND : PURE
PRODUCT TYPE : RINSED, SHAMPOO
LOT : SH1-2394
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

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## 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 has been conducted on the product tested, before the study starts.
iv) the test procedures conforms to national regulations.
v) the Ethical Review Scientific Committee include medical, non -medical, appropriate experts and lay members; it has consider the general ethics of the test and verified that the safety and integrity of the participants in the test are protected, taking into account information on the ingredient(s);
vi) all reasonable care has been taken to avoid causing excessive skin reactions or other adverse health effects in the participants during the study;
vii) safety procedures are in place in the event of any unexpected/adverse reactions, including appropriate medical cover; viii) volunteers are rewarded for their time, inconvenience, etc., but the reward is not so great that it would persuade

## Confidentiality

Requirements of Law 2472/1997 on the Protection of Individuals with regard to the Processing of Personal Data 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 within all studies carried out in our laboratories. 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 during 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

## CERTIFICATE ID

DISTRIBUTOR
PRODUCT MANUFACTURED BY
RECEIPT DATE
STUDY PERIOD
LAB ID
PRODUCT NAME
BRAND
PRODUCT TYPE
LOT
STUDY SPONSOR
TEST METHOD
TIME(S) OF ASSESSMENT
PANEL
APPLICATION AREA
QUANTITY OF PRODUCT
METHODOLOGY ABSTRACT
: 2017-4841 / 172401607
: MING FAI
: MING FAI
: 14/07/2017
: 11/09/2017-15/09/2017
: 172401607
: PURE 45ML SHAMPOO FORMULA No:SH1-2394
: PURE
: RINSED, SHAMPOO
: SH1-2394
: QACS Ltd
: Single application - 48 Hours occlusive patch tests
: 1 hour after patch removal, then after $24 \& 48$ hours ( 72 hours)
: 10 healthy adult volunteers
: On the back
: 0.02 ml
: Treatment sites are assessed before the first application of test material (baseline) and after treatment at 30 minutes after patch removal. Negative controls are used to facilitate evaluation. 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 to be tested is calculated from the average of the quotations obtained for each volunteer, allowing to rank the product from "non irritant to very irritant".
: 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.

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## 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.
Treatment sites are assessed before the first application of test material (baseline) and after treatment at 30 minutes after patch removal. Negative controls are used to facilitate evaluation. 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 to be tested is calculated from the average of the quotations obtained for each volunteer, allowing to rank the product from "non irritant to very irritant".

The objective of the test is to determine whether or not the product is likely to induce skin irritation under normal

## 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 and 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

$\checkmark \quad$ Informed volunteers who agree to follow the conditions specified
$\checkmark \quad$ where appropriate of relevant age : 18-70 years old
$\checkmark$ where appropriate of relevant gender : female and/or male
$\checkmark \quad$ where appropriate of relevant origin and health
$\checkmark \quad$ free from any dermatological problems on the area studied
$\checkmark \quad$ meet the specific study criteria on skin type
$\checkmark$ proof of home address \& social security number
$\checkmark$ able to understand the Greek langu age and the study requirements
Non inclusion criteria
$\checkmark \quad$ volunteers who does not meet the inclusion criteria
$\checkmark$ pregnancy or nursing condition
$\checkmark \quad$ irritated skin on test site(s)
$\checkmark$ blemishes, marks (e.g. tattoos, scars, sunburn) on the test site(s)
$\checkmark$ medication which may affect skin response and/or past medical history
$\checkmark \quad$ presenting skin pathology which may interfere with the aim(s) of the study
$\checkmark$ presenting contact allergy to one of the ingredients of the tested product
$\checkmark$ participation in another simultaneous study
$\checkmark$ participation in a previous study without an appropriate rest period between studies
$\checkmark \quad$ minors or majors protected by the law and people admitted in a sanitary or social institution for other purpose than research

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Study constraints
During the length of the study, the volunteers are asked:
$\checkmark \quad$ Not to put any product, also water on the patches area.
$\checkmark \quad$ Not to have a bath, neither to expose them selves to UV.
$\checkmark \quad$ To avoid all intense sportive activities that could remove the patch.
$\checkmark \quad$ 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 withdrawn for the following reasons:
$\checkmark$ they do not follow the conditions of the Study Information Sheet;
$\checkmark$ they suffer any illness or accident or develop any condition during the study which could affect the outcome of the study;
$\checkmark \quad$ they no longer wish to participate in the study.

## TEST MATERIAL

```
CERTIFICATE ID : 2017-4841 / 172401607
DISTRIBUTOR : MING FAI
PRODUCT MANUFACTURED BY : MING FAI
RECEIPT DATE : 14/07/2017
STUDY PERIOD : 11/09/2017-15/09/2017
LAB ID : 172401607
PRODUCT NAME : PURE 45ML SHAMPOO FORMULA No:SH1-2394
BRAND : PURE
PRODUCT TYPE : RINSED, SHAMPOO
LOT : SH1-2394
STUDY SPONSOR : QACS Ltd
STORAGE CONDITIONS : Away from heat and light
```

A sample of the tested product is kept at the QACS laboratories for 1 month after the end of the study. After this date and unless contrary requirement from the study sponsor, the product will be destroyed.

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## METHOD PRINCIPLE

The principle of the study is based on the single application of 0.02 ml of tested product, on the skin of the back of adult volunteers. The product is kept in contact with the skin for 48 hours under occlusive patch.

## Equipment

The equipment used for the occlusive patch is composed of a small plastic cavity of $0.64 \mathrm{~cm}^{2}$ 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 0.02 ml issufficient 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.
$\checkmark$ Mostly, the products are tested pure.
$\checkmark$ Rinse-off products are tested diluted at 5\%.
$\checkmark$ Detergents are tested diluted at 10\%.
$\checkmark$ Hydrophilic products are diluted in demineralised water
$\checkmark$ Lipophilic products are diluted in mineral oil.
$\checkmark \quad$ 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.
The patches thus prepared are left in contact 48 hours .

## 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 positive and/or 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:
$\checkmark \quad$ if the product is tested pure: empty patch.
$\checkmark \quad$ if the product is tested diluted: patch with 0.02 ml of the solvent used (demineralised water or mineral oil).

## Visual assessment

Treatment sites are assessed before the first application of test material (baseline) and after treatment at 30 minutes after patch removal. 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.

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## 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 controlzone. The Average Irritation Index (or Primary Skin Irritation) is calculated as the average of readings obtained on the volunteers population.

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

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 <br> CODE | SEX | AGE | CHARACTERISTICS | Events occured <br> during the study |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1114 | F | 30 | Normal skin |  |
| 2 | 1200 | M | 36 | Sensitive skin |  |
| 3 | 1346 | F | 26 | Normal skin |  |
| 4 | 1356 | F | 26 | Sensitive skin |  |
| 5 | 1565 | M | 23 | Normal skin |  |
| 6 | 1612 | F | 23 | Normal skin |  |
| 7 | 1637 | F | 25 | Normal skin |  |
| 8 | 1710 | F | 21 | Normal skin |  |
| 9 | 1711 | M | 23 | Normal skin |  |
| 10 | 1773 | F | 23 | Normal skin |  |

None of the volunteers selected took a treatment contraindicated with the study.

## Study withdrawals

No withdrawal of the study happened.

## Skin reactions

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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LAB ID : 172401607
PRODUCT NAME : PURE 45ML SHAMPOO FORMULA No:SH1-2394
BRAND : PURE
PRODUCT TYPE : RINSED, SHAMPOO
LOT : SH1-2394
STUDY SPONSOR
STORAGE CONDITIONS
- SH123
: QACS Ltd
: Away from heat and light
```

| VOL ID | VOLUNTEER <br> CODE | SEX | AGE | ERYTHEMA | DRYNESS | OEDEMA | Total readings <br> 48hrs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1114 | F | 30 | 0 | 0 | 0 | 0 |
| 2 | 1200 | M | 36 | 0 | 0 | 0 | 0 |
| 3 | 1346 | F | 26 | 0 | 0 | 0 | 0 |
| 4 | 1356 | F | 26 | 0 | 0 | 0 | 0 |
| 5 | 1565 | M | 23 | 0 | 0 | 0 | 0 |
| 6 | 1612 | F | 23 | 0 | 0 | 0 | 0 |
| 7 | 1637 | F | 25 | 0 | 0 | 0 | 0 |
| 8 | 1710 | F | 21 | 0 | 0 | 0 | 0 |
| 9 | 1711 | M | 23 | 0 | 0 | 0 | 0 |
| 10 | 1773 | F | 23 | 0 | 0 | 0 | 0 |


| Total reading 48hrs. all volunteers | $\mathbf{0}$ |
| :--- | :---: |
| Number of readings | $\mathbf{1}$ |
| Total irritation / number of readings | $\mathbf{0}$ |
| Irritation index | $\mathbf{0 . 0 0}$ |
| Result | Non irritant |

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

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## 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 PURE 45ML SHAMPOO FORMULA No:SH1-2394 can be considered as Non irritant regarding its primary skin tolerance.

Investigating doctor :
Printed name: Christos Prevezas
Date : 15/09/2017


## RESULTS AUTHENTICITY

The study concemed 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 :
Printed name : Dimitrios Tzouvalis
Date : 15/09/2017


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Tel $+30-2102934745-302102934606$

This document has been electronically signed by those names that appear on this report and are the authorized signatories.


[^0]:    The samples will be stored by the laboratory during 1 month from the end test date. The study report and raw data will be stored by the laboratory during 2 years.

