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Test Report

Report No.:	20-011-SKI
Customer:	Actiwa Swiss (Thailand) Co., Ltd.
Address:	12 On nut 17 Alley, Lane 15, Suan Luang, Suan Luang Bangkok 10250
Date of Receipt:	8 July 2020
Date of Analysis:	4 August 2020 – 11 August 2020
Test Method:	*In vitro* skin irritation test (OECD 439)
Number of test item(s):	1

Performed and reported by:
(sign/date)

Paninee C. 2020.09.01

Paninee Chetprayoon, Ph.D.
Researcher

Reviewed by:
(sign/date)

Rawiwan Maniratanachote 2020.09.01

Rawiwan Maniratachote, Ph.D.
Principal Researcher

Approved by:
(sign/date)

L. Krasachol 2020-09-01

Ladawan Krasachol, Ph.D.
Executive Vice President for President
National Science and Technology Development Agency

ACTIWA SWISS (THAILAND) CO., LTD.

Remarks :

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5. Having any questions about this report, please contact us within 7 working days after the report was received.

Details of Test sample

No.	Sample Name	Sample Code	Attribute
1	SteriPlant	SteriP	Clear Solution

1. Test method principle

In vitro skin irritation test

In vitro skin irritation test is the reconstructed human epidermis; RhE with physical and biological characteristics which is similar to the human corneal epithelium which made from alive skin cells and structurally similar to the human epidermis. The test has the validity that has been accepted by the European Center for the Validation of Alternative Methods (ECVAM). The test was performed based on the OECD Test Guideline (TG) No. 439 by evaluating the Test substance from the percentage of tissue viability. The test can determine the trend of skin irritation from the substance in accordance to UN GHS.

2. Objective

2.1 To test for skin irritation of SteriPlant sample.

3. Details of test substance

Test chemical	Chemical identification	Physical appearance	Purity/concentration	Treatment prior to testing	Storage condition
SDS (Positive control)	Sodium dodecyl sulfate (CAS no. 151-21-3)	Clear liquid	20% in water	Diluted with water to 5% (v/v)	RT
SteriP	N/A	Clear liquid	N/A	None	RT

RT, Room temperature

4. Test procedure

Sample Preparation

• No

Test method

- RhCE to be exposed in test substance with volume of 25 µL for 15 second
- Sample in Negative Control (NC) to be tested with deionized (DI) water volume of 25 µL
- Sample in Positive Control (PC) to be tested with 5% (v/v) sodium dodecyl sulfate (SDS) volume of 25 µL
- Sample was washed and incubated RhCE in a cell culture cabinet for 42 hrs.
- RhE viability was measured by MTT assay
- Repeated the test for 3 times (tissues)

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The criteria for result interpretation

In vitro result	Prediction
Mean tissue viability > 50 %	No category (Non-irritant)
Mean tissue viability ≤ 50 %	UN GHS Cat. 1 or 2 (Irritant)

5. Test result

Table 1. Percentage of RhE viability in the skin Irritation Test from SteriPlant as sample group has shown the mean from 3 times test as follow

Sample	Tissue viability (%)			Mean	SD	Result interpretation
	Tissue 1	Tissue 2	Tissue 3			
NC	98.36	101.65	99.99	100.00	1.65	N/A
PC	2.01	1.95	1.73	1.90	0.14	Irritant
SteriP	99.09	108.76	101.12	102.99	5.10	Non-irritant

6. Conclusion

From the skin irritation test in SteriPlant in according to OECD TG 439 method showed the SteriPlant samples were not likely to cause skin irritation (non-irritant).

7. Reference

(1) OECD (2019), OECD Guideline for the Testing of Chemicals No. 439: In Vitro skin irritation: reconstructed human epidermis test method.

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