



**HACETTEPE UNIVERSITY**  
Faculty of Pharmacy

*Department of Pharmacology*

**SKIN IRRITATION  
TEST REPORT**

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## SKIN IRRITATION TEST REPORT FORM

**Contract Number:** BU-2020/49A

**Customer Name/Address:** Narkonteks Tekstil İhr. İth. San. ve Tic. A.Ş.  
Doğuş Cad. 3/19 Sok. No: 12 Begos Buca İZMİR

**Test Sample Name:** SS Laminated PP Fabric (55 gr/m<sup>2</sup>)

**Test Sample Description:** Personal Protective Equipment Fabric

**Test Sample Lot Number:** 9040-9050-9080

**Testing Facility:** Hacettepe University Faculty of Pharmacy  
Pharmacology Department  
06100, Sıhhiye Ankara, Turkey

**Arrival of the Test Sample:** 15.09.2020

**Date of Report:** 28.09.2020

**Attachment:** Technical Information

### RESULT

The test material "SS Laminated PP Fabric (55 gr/m<sup>2</sup>) (Lot 9040-9050-9080)" **does not cause skin irritation.**

**ACTING COORDINATOR  
ADMINISTRATIVE DIRECTOR**

Professor Serdar Uma

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## TECHNICAL INFORMATION

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### GUIDELINES

TS EN ISO 10993:	Biological evaluation of medical devices
TS EN ISO 10993-1:2014	Evaluation and testing within a risk management process
TS EN ISO 10993-2:2006	Animal welfare requirements
TS EN ISO 10993-10:2014	Tests for irritation and skin sensitization
TS EN ISO 10993-12:2013	Sample preparation and reference materials

### DESIGN OF STUDYING

Test Sample Quantity: 37.5 cm<sup>2</sup>

Start of Test: 22.09.2020

End of Test: 25.09.2020

### Practice\*:

The test was performed on the samplings that were provided by the customer.

DIRECT CONTACT METHOD	X	EXTRACTION METHOD	-	OTHER/INSTRUCTIONS	-
<b>Solid Samples:</b> Test sample is used directly in accordance with TS EN ISO 10993-10 "Tests for irritation and skin sensitization" standart. Test samples was cut to size of 25x25 mm.  Blank Sample: <ul style="list-style-type: none"><li>• 25 x 25 mm four-ply gauze patch</li></ul>		Test sample extract is prepared according to table of "Standart surface areas and extract liquid volumes" in TS EN ISO 10993-12 "Sample preparation and reference materials" standart. Extract is obtained by incubation of sample with physiological saline (% 0.9 (m/v) NaCl) and in non-polar solvent (sunflower oil) at 37 °C for 72 hours. At the end of the period, polar and nonpolar extracts were applied to the skin by 25 x 25 mm four layered gauze. All of the sample was extracted. <b>Blank Sample:</b> <ul style="list-style-type: none"><li>• 25 x 25 mm four-ply gauze patch with physiological saline (0.9 % (m/v) NaCl) (water-based sample)</li><li>25 x 25 mm four-ply gauze patch with sunflower oil (oil-based sample)</li></ul>			
*SIGN THE SUITABLE CHOICE WITH "X", UNSUITABLE CHOICE WITH "-".					

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### Test Procedure:

Three healthy adult albino rabbits (either sex, 2-3 kg) was used.

On the day before the test, the fur on the back of the animals was shaved. A sufficient distance was kept on both sides of the spine for the application and observation of all test sites. Test material and blank sample that prepared in accordance with practice method were applied to the skin on both sides in two different areas of the rabbit. The application sites were wrapped with a semi-occlusive bandage for 4 h. At the end of the contact time the patches and dressings were removed and the position of the sites were marked by permanent ink.

### OBSERVATION AND CALCULATION

Application sites are observed for erythema and oedema at 1<sup>st</sup>, 24<sup>th</sup>, 48<sup>th</sup>, and 72<sup>nd</sup> hours following the removal of the patches. Only 24<sup>th</sup>, 48<sup>th</sup>, and 72<sup>nd</sup> hours observations are used for calculations. Irritation was scored by using ISO 10993-10, "Scoring system for skin reaction". Irritation grades are presented as mean of two application sites of either test or blank sample. The primary irritation score for each animal is calculated by dividing the sum of all the irritation scores by six (two test/observation sites, three time points). Primary irritation index is calculated by subtracting the sum of primary irritation scores for the blank sample from the sum of primary irritation scores for the test samples and then dividing this difference by the total number of animals (three). According to the calculated primary irritation index values, the results are presented as the appropriate response category which is given below.

**TABLE 1: SCORING SYSTEM FOR SKIN REACTION**

Reaction	Irritation score
<b>Erythema and eschar formation</b>	
No erythema	0
Very slight erythema (barely perceptible)	1
Well-defined erythema	2
Moderate erythema	3
Severe erythema (beet-redness) to eschar formation preventing grading of erythema	4
<b>Oedema formation</b>	
No oedema	0
Very slight oedema (barely perceptible)	1
Well-defined oedema (edges of area well-defined by definite raising)	2
Moderate oedema (raised approximately 1 mm)	3
Severe oedema (raised more than 1 mm and extending beyond exposure area)	4
<b>Maximal possible score for irritation</b>	<b>8</b>
Other adverse changes at the skin sites shall be recorded and reported.	

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### RESULT

TABLE 2: MEAN IRRITATION SCORES OF TWO APPLICATION SITES AT 24<sup>th</sup>, 48<sup>th</sup>, 72<sup>th</sup> HOURS

OBSERVATION TIME POINTS (HOURS)	1 <sup>ST</sup> RABBIT		2 <sup>ND</sup> RABBIT		3 <sup>RD</sup> RABBIT	
	CONTROL SITE	TEST SITE	CONTROL SITE	TEST SITE	CONTROL SITE	TEST SITE
24 <sup>th</sup>	0	0	0	0	0	0
48 <sup>th</sup>	0	0	0	0	0	0
72 <sup>nd</sup>	0	0	0	0	0	0
Primary irritation score	0	0	0	0	0	0

Primary irritation index: 0

PRIMARY IRRITATION INDEX	RESPONSE CATEGORY
0 to 0.4	Negligible
0.5 to 1.9	Slight
2 to 4.9	Moderate
5 to 8	Severe

Response category: Negligible

### CONCLUSION

The test sample with **BU-2020/49A** code **does not cause skin irritation.**

CHIEF OF TEST DEPARTMENT

Professor Pelin Kelicen Uğur

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