「“NoGerm”General Purpose Disinfectant
(“諾必淨”一般醫療器材用消毒劑)」
The Intracutaneous Irritation Study in Rabbits

Final Report

Study Number: TW025-23070L01

Sponsor Name: Nanoplus Life Biomedical Technology Co., Ltd

Address: 9 F., No. 179, Sec. 2, Tiding Blvd., Neihu Dist., Taipei City 114735, Taiwan (R.O.C.)

Test Facility: Chang Bing Show Chwan Memorial Hospital Animal Center (CBSCMHAC)
Address: No. 6, Lugong Rd., Lukang Township, Changhua County 505, Taiwan (R.O.C.)

Test Facility Approval

Quality Assurance Auditor

Chia-Yun Tsai

Signer Name: Chia-Yun Tsai, MS.

May 10, 2024

Date

Study Director

Wei-Jen Hsu

Signer Name: Wei-Jen Hsu, BS

May 10, 2024

Date

Facility Manager

Chi-Jung Yeh

Signer Name: Chi-Jung Yeh, MT.

May 10 2024

Date

Good Laboratory Compliance Statement

This study was conducted in compliance with the Organisation for Economic Co-operation and Development (OECD)-Principles of Good Laboratory Practice (GLP) and Taiwan Food and Drug Administration-Good Laboratory Practice for Nonclinical Laboratory Studies.

The laboratory is exempt from the following provisions: Sections 6.2.2, 6.2.3, 6.2.4, 6.2.5 in Taiwan Food and Drug Administration -Good Laboratory Practice for Nonclinical Laboratory Studies and The Organization for Economic Co-operation and Development (OECD) -Principles of Good Laboratory Practice (GLP). Characterization and verification of the test item identity, strength, purity, stability, composition, method of synthesis, fabrication, derivation or other characteristics provided from sponsor, which are the responsibility of the sponsor.

Study Director

Wei-Jen Hsu

Signer Name: Wei-Jen Hsu, BS

May 10, 2024

Date

Quality Assurance Statement

Study Number	TW025-23070L01
Study Name	「“NoGerm” General Purpose Disinfectant (“諾必淨”一般醫療器材用消毒劑)」 The Intracutaneous Irritation Study in Rabbits

This study has been divided into several phases for inspection. Using a random sampling approach, each of these phases was monitored by quality assurance representative over a series of inspections. Related procedures, equipment records, and documentation are examined in order to assure that the study is performed in accordance with GLP guidelines from the regulatory body, such as the Taiwan Food and Drug Administration and OECD.

The following list describes the inspection date, inspection type, inspection phase, and report dates of inspections conducted by Quality Assurance in this study.

INSPECTION DATE	INSPECTION TYPE	STUDY PHASE	DATE REPORTED TO STUDY DIRECTOR	DATE REPORTED TO FACILITY MANAGER
Feb. 29, 2024	Study-Based inspections	Draft Study Plan Review & Operator's Qualification	Feb. 29, 2024	Feb. 29, 2024
Mar. 19, 2024	Study-Based inspections	Test Item Application	Mar. 19, 2024	Mar. 19, 2024
Apr. 26, 2024	Study-Based inspections	Raw Data Review	Apr. 26, 2024	Apr. 26, 2024
Apr. 30, 2024	Study-Based inspections	Final Report Review	Apr. 30, 2024	Apr. 30, 2024

I accept the responsibility for conducting inspection to assure that the methods and procedures used in the study and the reported results accurately reflect the raw data of the study.

Quality Assurance Auditor

Chia-Yun Tsai

Signer Name: Chia-Yun Tsai, MS.

May 10, 2024

Date

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Appendix

Summary

The test item, “NoGerm”General Purpose Disinfectant (“諾必淨”一般醫療器材用消毒劑), was evaluated for the potential to cause irritation following intracutaneous injection in rabbits. This study was conducted based on ISO 10993-23, Biological evaluation of medical devices - Part 23: Tests for irritation (2021). The test item was extracted in 0.9% sodium chloride solution and sesame oil. A 0.2 mL dose of the appropriate test item extract was injected intracutaneously into five separate sites on the left side of the back of each of three animals. Similarly, the extract vehicle alone (control) was injected on the right side of the back of each animal. Observations for erythema and edema were conducted at 24, 48, and 72 hours after injection.

There was no erythema and no edema observed on the skin of the animals treated with the test item extract. The test item met the requirements of the test since the difference between each test item extract overall mean score and corresponding control extract overall mean score was 0.0 and 0.0 from the 0.9% sodium chloride solution and sesame oil test item extracts, respectively. The test result showed that the response of the test item extract was categorized as negligible under the test condition.

1. Objectives

The purpose of this study was to evaluate the local dermal irritation of a test item extract following intracutaneous injection in rabbits.

2. Test Facility

2.1.Name:

Chang Bing Show Chwan Memorial Hospital Animal Center (CBSCMHAC)

2.2.Address:

1F., No. 6, Lugong Rd., Lukang Township, Changhua County 505, Taiwan (R.O.C.)

3. Personnel

Associates involved in this study was appropriately qualified and trained.

3.1.Study Director:

Wei-Jen Hsu, BS

Phone: +886-4-7813888#73630

E-mail: weijen1025@gmail.com

Address: 3F.,No. 6, Lugong Rd., Lukang Township, Changhua County 505, Taiwan (R.O.C.)

3.2.Study Personnel:

De-Wei Lai, Ph.D.

Hao-Ting Wu, MS

Wei-Jen Hsu, BS

3.3.Study Location:

Operation room	Preparation of Extracts
Rabbit room	Intradermal irritation test and animal feeding

4. Sponsor Information

4.1.Name:

Nanoplus Life Biomedical Technology Co., Ltd

4.2.Address:

9 F., No. 179, Sec. 2, Tiding Blvd., Neihu Dist., Taipei City 114735, Taiwan (R.O.C.)

4.3.Sponsor's Representative and contact information:

Tzu-Ying Hung (洪慈營)

Phone: (02) 2656-0555

Email: Cecilia@nanoplustech.com

5. Study Schedule

1. Study Initiation Date:	Mar. 12, 2024
2. Test item receipt date:	Feb. 16, 2024
3. Experimental starting date:	Mar. 16, 2024
4. Experimental completion date:	Mar. 22, 2024
5. Study Completion Date:	The date Study Director signed in final report.

6. Test Item

6.1.Test Item:

Name of Test Item:“NoGerm”General Purpose Disinfectant (“諾必淨”一般醫療器材用消毒劑)

Receipt Date: Feb. 16, 2024

Lot Number: 51224010004

Test Item No.: TW025-23070L01- 51224010004 (1): Polar Extracts &Non-Polar Extracts

TW025-23070L01- 51224010004 (2): Polar Extracts &Non-Polar Extracts (retention)

Type: Medical Devices, Category: Class1; Surface Device

External Features: Liquid

Surface Area: Not Available

Thickness: Not Available

Concentration: N/A

Purity: N/A

Expiry Date: Jan. 30, 2027

Manufacture Date: Jan. 31, 2024

Amount: Test: 1 bot* 4L, Retention: 1 bot* 4L

Major Components: Electrolyzed Water

Sterilization: No

Color: Colorless

Storage Condition: Room Temperature (SC-01 region)

Cut or Not: N/A (Liquid)

Extraction: By Weight: (0.2±10%) g/mL; Condition: (50±2) ℃ (72±2) Hours

Test Conditions: No Dilution

Others: The Intracutaneous Irritation Study in Rabbits; Test Item/ Control Item/ Information Form as Appendix 1

7. Test System

7.1.Test System:

7.1.1. Species: Rabbit

7.1.2. Strain: New Zealand White

7.1.3. Weight: 2.688~3.046kg

7.1.4. Number of Animals: Four females (non-pregnant and nulliparous). Three for testing, one for spare.

7.1.5. Source: Livestock Research Institute, Council of Agriculture Executive Yuan. (No.112, Farm Road, Hsinhua, Tainan 71246, Taiwan (R.O.C.))

7.1.6. Feeding region: Chang Bing Show Chwan Memorial Hospital Experimental Animal Center Rabbit Room. (1F., No. 6, Lugong Rd., Lukang Township, Changhua County 505, Taiwan (R.O.C.))

7.1.7. Acclimation Period: Quarantine and acclimatization for 4 days in the rabbit room

7.1.8. Animal Facility Environment Control:

i Temperature for the room: 18.8~20.6°C
ii Relative humidity: 32.7%~52.9%
iii Light cycle: 12 hours light, 12 hours dark (set 07:00 open; 19:00 close)
iv Condition: Animals were individually housed in stainless steel cages identified by a card indicating the study number, animal number, experimental group, sex, and experimental date, species, strain, and source.
v Diet: Laboratory Rabbit Diet –Prolab5p26 (LabDiet) was supplied ad libitum throughout the study period.
vi Potable water: RO and sterilization water was supplied ad libitum throughout the study period. It was distributed to the polycarbonate bottles and autoclaved, and then attached to the cages.
vii Animal Marking and identification: Write the numbers (A1-3) on the right ear with a marker pen.

7.2.The procedures for this study were approved by the Chang Bing Show Chwan Memorial Hospital Institutional Animal Care and Use Committee (IACUC) prior to conduct. IACUC approval Number: 113010.

7.3.Selection: Only healthy, previously unused animals free of mechanical irritation or trauma that could interfere with the test were selected.

7.4.Justification of Test System: The rabbit is specified as an appropriate animal model for evaluating potential skin irritants by the current testing standards. The following rules of ISO10993-23 (2021) and OECD Guideline 404 (2015) suggestion.

8. Study Design

This test procedure referred to ISO10993-23 (2021), OECD Guideline 404 (2015) and SOP GLP-TM-10-04 Irritation Test by Intracutaneous Administration.

8.1. **Reagent, Material and Equipment:**

8.1.1. Biological Safety Cabin (BSC), model: AC2-4S9-NS, supplier: ESCO, equipment number: BSC-06, calibration date: Oct. 04, 2023

8.1.2. Rotary shaking incubator, model: LM-575RD, supplier: YIHDER, equipment number: SI-01, calibration date: Mar. 19, 2024

8.1.3. Electric shaver for animals, model: CF-202，supplier: CHI FON SHAVER IND. CO., LTD., calibration date: N.A.

8.1.4. Vernier caliper, model: CD-6"CSX, equipment number: DC-01, calibration date: Aug. 21, 2023

8.1.5. Electronic balance, model: PA224C, supplier: OHAUS, equipment number: BAL-05, calibration date: Mar. 19, 2024

8.1.6. Electronic balance (animal weight), model: AX5202, supplier: OHAUS, equipment number: BAL-04, calibration date: Mar. 19, 2024

8.1.7. 1000μL Pipette, supplier: Sorenson, equipment number: P1mL-06, calibration date: Mar. 12, 2024

8.1.8. 1000μL tip, catalog: TF112-1000, supplier: QSP, lot: 13641440, expiry date: Jan. 08, 2028

8.1.9. Extraction container (50mL tube), catalog:5100050C, lot:50C2G1128B, supplier: CAPP, expiry date: Aug. 31, 2024

8.1.10. Marker pen

8.1.11. 75% alcohol, supplier: TOUN-SHIN CO., LTD., lot: HA221127, expiry date: Nov. 21, 2026

8.1.12. Cotton swabs, supplier: BELIA, lot: 20230911-1, expiry date: Sep. 11, 2025

8.1.13. 1mL Syringes 26G x 1/2", supplier: PERFECT MEDICAL INDUSTRY CO., LTD.；lot: 220304, expiry date: Feb. 12, 2025

8.1.14. 0.9% saline, lot: 1TKB2022, supplier: Taiwan Biotech Co., Ltd., expiry date: Aug. 01, 2025

8.1.15. Sesame oil, catalog: S3547, lot: MKCP7144, supplier: Sigma, expiry date: Jul. 17, 2024

8.2.**Preparation of Extracts:**

8.2.1. Test item was taken according to the sampling method (Whole sampling adds additional volume of extraction vehicle that the test sample absorbs when performing the extraction, using the weight data of the test item provided by the CBSCMHAC detection). The extraction was performed in close inert containers according to the extraction ratio of (0.2±10%) g: 1 mL (sample: extraction vehicle). The vehicle (without the test items) was similarly prepared to serve as the control. The extraction steps referred to SOP GLP-TM-10-03 Test Item Extraction and ISO10993-12 (2021).

8.2.1.1.The Extraction Vehicle:

Polar solvent: 0.9% saline; Non-polar solvent: Sesame oil

8.2.1.2.Extraction Condition:

50±2℃ for 72±2 hours

8.3.**Test Procedure:**

8.3.1. The test procedure, consumables and related operation time points were recorded in “GLP-TM-10-04-01T For Irritation Test by Intracutaneous Administration Record”.

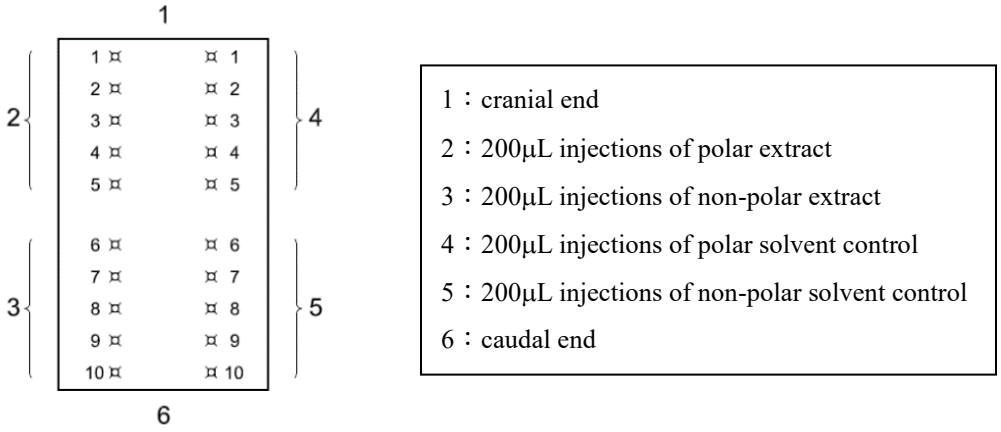
8.3.2. Recorded the body weight of the rabbit before and after the test in “GLP-TM-10-04-02F For Irritation Test by Intracutaneous Administration-Animal Body Weight Record”.

8.3.3. Used the rabbits with healthy intact skin. Fur was clipped within 4 to 18 hours period before testing, each animal was clip free of fur from the back and both sides of the spinal column to yield a sufficient injection area (approximately 10 X 15 cm).

8.3.4. Injected intracutaneously 200μL of the extract obtained with polar or non-polar solvent at five sites on one side of each rabbit.

8.3.5. Similarly, injected 200μL of the polar or non-polar solvent control on five sites of the contra lateral side of each rabbit.

Figure 1. Arrangement of injection sites



8.3.6. Observations for erythema and oedema were conducted at 24±2, 48±2 and 72±2 hours after injection. Reactions were scored on 0 to 4 basis. Any reactions at the injection sites were also noted. The reactions were evaluated according to the following subjective rating scale in Table 1and recorded in “GLP-TM-10-04-03F Individual Values of Intracutaneous Reactions”.

Table 1: Test Scoring

Reaction	Numerical grading
Erythema and eschar formation	
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
Oedema formation	
No oedema	0
Very slight oedema (barely perceptible)	1
Well-defined oedema (edges of area well-define raising)	2
Moderate oedema (raised approximately 1 mm)	3
Severe erythema (raised more than 1 mm and extending beyond exposure area)	4
Maximal possible score for irritation	8

8.3.7. Observations were examined daily included all clinical signs and recorded in "GLP-TM-10-04-04F Laboratory Animal Observation Record".

9. Results Analysis

9.1. The scores for erythema and oedema site for the test item and control extracts for each animal at each scoring interval were calculated by adding the erythema and oedema together. The mean score for each individual animal (test and control) was calculated by summing all individual site scores for each animal and dividing by 15 (3 scoring time points x 5 test or control sites). The overall mean for each test item extract and control extract was calculated by summing the mean scores for all three animals and dividing by 3. The difference between the overall mean score of the test item extract and corresponding control extract was calculated by subtracting the overall mean score for the control extract from the overall mean score for the test item extract. If the overall mean score of the test item extract was less than the overall mean score of the corresponding control extract, 0.0 was reported.

9.2. The requirements of the test were met if the difference between the test extract overall mean score and corresponding control overall mean score was 1.0 or less.

9.3. According to ISO 10993-23 (2021), acute dermal irritation in the rabbit conducted a positive control substance confirmed, which was performed at regular intervals and did not exceed six months.

10.Results

10.1.Extraction

10.1.1. Polar Extract

Group	Extraction Ratio	Weight of Test Item	Extraction Volume	Condition of Extraction (Estimated)	Condition of Extraction(Actual)
Test	(0.2±10%) g/mL	5.084 g	25.42 mL	50±2℃; 72±2 hours	50℃; 72 hrs 5 min
Control	N.A.	N.A.	20.00 mL	50±2℃; 72±2 hours	50℃; 72 hrs 5 min

10.1.2. Non-Polar Extract

Group	Extraction Ratio	Weight of Test Item	Extraction Volume	Condition of Extraction (Estimated)	Condition of Extraction (Actual)
Test	(0.2±10%) g/mL	5.008 g	25.04 mL	50±2℃; 72±2 hours	50℃; 72 hrs 5 min
Control	N.A.	N.A.	20.00 mL	50±2℃; 72±2 hours	50℃; 72 hrs 5 min

10.2.Condition of Extracts

10.2.1. Polar Extract

Group	Observation Point	Extraction State		
		Color	Clarity	Precipitate
Test	Before extract	colorless	clear	No
	After extract	colorless	clear	No
	Before used	colorless	clear	No
Control	Before extract	colorless	clear	No
	After extract	colorless	clear	No
	Before used	colorless	clear	No

10.2.2. Non-Polar Extract

Group	Observation Point	Extraction State		
		Color	Clarity	Precipitate
Test	Before extract	light yellow	turbid	No
	After extract	light yellow	turbid	No
	Before used	light yellow	turbid	No
Control	Before extract	light yellow	clear	No
	After extract	light yellow	clear	No
	Before used	light yellow	clear	No

10.3.Animal Body Weight

Total body weight, Kg			
Animal number	Sex	Before (Kg)	After (Kg)
A1	Female	2.910	2.976
A2	Female	2.688	2.775
A3	Female	3.046	3.120

10.4.Individual Values of Intracutaneous Reactions

Animal Number	Test	Reaction Site	Items	OBS			(24 hrs+ 48 hrs+ 72 hrs)/15
				24 hrs	48 hrs	72 hrs	
A1	polar extracts	**2-1**	Ery/ Oed	0/0	0/0	0/0	
		2-2	Ery/ Oed	0/0	0/0	0/0	
		2-3	Ery/ Oed	0/0	0/0	0/0	
		2-4	Ery/ Oed	0/0	0/0	0/0	
		2-5	Ery/ Oed	0/0	0/0	0/0	
		(2)	Total	0	0	0	0
	Non-polar extracts	**3-6**	Ery/ Oed	0/0	0/0	0/0	
		3-7	Ery/ Oed	0/0	0/0	0/0	
		3-8	Ery/ Oed	0/0	0/0	0/0	
		3-9	Ery/ Oed	0/0	0/0	0/0	
		3-10	Ery/ Oed	0/0	0/0	0/0	
		(3)	Total	0	0	0	0
	polar solvent control	**4-1**	Ery/ Oed	0/0	0/0	0/0	
		4-2	Ery/ Oed	0/0	0/0	0/0	
		4-3	Ery/ Oed	0/0	0/0	0/0	
		4-4	Ery/ Oed	0/0	0/0	0/0	
		4-5	Ery/ Oed	0/0	0/0	0/0	
		(4)	Total	0	0	0	0
	Non-polar solvent control	**5-6**	Ery/ Oed	0/0	0/0	0/0	
		5-7	Ery/ Oed	0/0	0/0	0/0	
		5-8	Ery/ Oed	0/0	0/0	0/0	
		5-9	Ery/ Oed	0/0	0/0	0/0	
		5-10	Ery/ Oed	0/0	0/0	0/0	
		(5)	Total	0	0	0	0

Animal Number	Test	Reaction Site	Items	OBS			(24 hrs+ 48 hrs+ 72 hrs)/15
				24 hrs	48 hrs	72 hrs	
A2	polar extracts	**2-1**	Ery/ Oed	0/0	0/0	0/0	
		2-2	Ery/ Oed	0/0	0/0	0/0	
		2-3	Ery/ Oed	0/0	0/0	0/0	
		2-4	Ery/ Oed	0/0	0/0	0/0	
		2-5	Ery/ Oed	0/0	0/0	0/0	
		(2)	Total	0	0	0	0
	Non-polar extracts	**3-6**	Ery/ Oed	0/0	0/0	0/0	
		3-7	Ery/ Oed	0/0	0/0	0/0	
		3-8	Ery/ Oed	0/0	0/0	0/0	
		3-9	Ery/ Oed	0/0	0/0	0/0	
		3-10	Ery/ Oed	0/0	0/0	0/0	
		(3)	Total	0	0	0	0
	polar solvent control	**4-1**	Ery/ Oed	0/0	0/0	0/0	
		4-2	Ery/ Oed	0/0	0/0	0/0	
		4-3	Ery/ Oed	0/0	0/0	0/0	
		4-4	Ery/ Oed	0/0	0/0	0/0	
		4-5	Ery/ Oed	0/0	0/0	0/0	
		(4)	Total	0	0	0	0
	Non-polar solvent control	**5-6**	Ery/ Oed	0/0	0/0	0/0	
		5-7	Ery/ Oed	0/0	0/0	0/0	
		5-8	Ery/ Oed	0/0	0/0	0/0	
		5-9	Ery/ Oed	0/0	0/0	0/0	
		5-10	Ery/ Oed	0/0	0/0	0/0	
		(5)	Total	0	0	0	0

Animal Number	Test	Reaction Site	Items	OBS			(24 hrs+ 48 hrs+ 72 hrs)/15
				24 hrs	48 hrs	72 hrs	
A3	polar extracts	**2-1**	Ery/ Oed	0/0	0/0	0/0	
		2-2	Ery/ Oed	0/0	0/0	0/0	
		2-3	Ery/ Oed	0/0	0/0	0/0	
		2-4	Ery/ Oed	0/0	0/0	0/0	
		2-5	Ery/ Oed	0/0	0/0	0/0	
		(2)	Total	0	0	0	0
	Non-polar extracts	**3-6**	Ery/ Oed	0/0	0/0	0/0	
		3-7	Ery/ Oed	0/0	0/0	0/0	
		3-8	Ery/ Oed	0/0	0/0	0/0	
		3-9	Ery/ Oed	0/0	0/0	0/0	
		3-10	Ery/ Oed	0/0	0/0	0/0	
		(3)	Total	0	0	0	0
	polar solvent control	**4-1**	Ery/ Oed	0/0	0/0	0/0	
		4-2	Ery/ Oed	0/0	0/0	0/0	
		4-3	Ery/ Oed	0/0	0/0	0/0	
		4-4	Ery/ Oed	0/0	0/0	0/0	
		4-5	Ery/ Oed	0/0	0/0	0/0	
		(4)	Total	0	0	0	0
	Non-polar solvent control	**5-6**	Ery/ Oed	0/0	0/0	0/0	
		5-7	Ery/ Oed	0/0	0/0	0/0	
		5-8	Ery/ Oed	0/0	0/0	0/0	
		5-9	Ery/ Oed	0/0	0/0	0/0	
		5-10	Ery/ Oed	0/0	0/0	0/0	
		(5)	Total	0	0	0	0

Animal Number	Reaction Site (2)	Reaction Site (4)	Reaction Site mean (2-4)	Irritate Response YES/ NO
A1	0	0	0	NO
A2	0	0	0	NO
A3	0	0	0	NO
Animal Number	**Reaction Site (3)**	**Reaction Site (5)**	**Reaction Site mean (3-5)**	**Irritate Response YES/ NO**
A1	0	0	0	NO
A2	0	0	0	NO
A3	0	0	0	NO

10.4.1. During the test (Mar.18, 2024 - Mar. 22, 2024) Laboratory Animal Observation

Date	Mar. 18, 2024	Mar. 19, 2024	Mar. 20, 2024	Mar. 21, 2024	Mar. 22, 2024
Non-abnormal	3/3*	3/3*	3/3*	3/3*	3/3*
Abnormal	$0/3^{+}$	$0/3^{+}$	$0/3^{+}$	$0/3^{+}$	$0/3^{+}$
Death	$0/3^{\#}$	$0/3^{\#}$	$0/3^{\#}$	$0/3^{\#}$	$0/3^{\#}$

Remarks: During the test period, animal clinical observations were carried out every Monday to Friday, and the observation content included whether the appearance and behavior of the animals were normal.
* (number of animals with normal clinical observation/total number of animals in each group)
+(number of animals with abnormal clinical observation/total number of animals in each group)
#(Number of dead animals in clinical observation/total number of animals in each group)

All animals were survived and no abnormal signs were observed during the study. According to what observed, the skin reaction of polar and non-polar extract on testing site did not exceed that on the control site. Thus, the final test item score was calculated to be 0.

11. Conclusion

The test result showed that the response of the test item extract was categorized as negligible under the test condition.

12. Deviation Statement

There were no deviations from the approved study plan which were judged to have any impact on the validity of the data.

13.Study Documents and Archives

The study pertinent records to be maintained included, but not limited to, the following objects:

- Signed Study Plan
- Material record (e.g. Test Item/ Control Item/ Specimen Information Form, Receiving Item Confirmation Form, Controlled Item Request Form, Control Area Access Record, Item Return Processing Record and etc.)
- Raw data for experimental handling (e.g. IACUC approval certification, Laboratory Animal Quarantine Report, Laboratory Animal Receive Record, Animal Room Environmental Monitoring data and etc.)
- Raw data of experimental results (e.g. Extraction Test Procedure, For Skin Irritation Test Procedure, Animal Body Weight Record, Individual Values of Skin Reactions, Mean Values of Skin Reactions, Laboratory Animal Observation Record, Cage Card, Photograph of the Observation, Autoclave Record-Water and Diet and etc.)
- Correspondence between the CBSCMHAC and the Sponsor and Application Form
- A copy of Final Report.

The above-mentioned data and documents will be maintained in the archives at Animal Center of Chang Bing Show Chwan Memorial Hospital for at least 6 years after the finalization of the report. The retention of test item will be retained in the storage cabinet (SC-01) located in the control area of the test item management room at room temperature. The storage period of the test item will be reserved for at least 6 years after the final report becomes effective or be withdrawn after the validity period of the test item.

14.References

14.1 Taiwan Food and Drug Administration - Good Laboratory Practice for Nonclinical Laboratory Studies. (2019)

14.2 The Organisation for Economic Co-operation and Development (OECD) - Principles of Good Laboratory Practice (GLP). (1997)

14.3 The Organisation for Economic Co-operation and Development (OECD) Test Guidelines 404: Acute Dermal Irritation/Corrosion. (2015)

14.4 Council of Agriculture, Executive Yuan, Animal Care and Use Program (2018)

14.5 World Health Organization. (2002). WHO Manual on Animal Influenza Diagnosis and Surveillance.

14.6 Background review for sodium laurilsulfate used as an excipient. EMA/CHMP/351898/2014 Committee for Human Medicinal Products (CHMP) (2014).

14.7 International Organization for Standardization (ISO) 10993-12, Biological evaluation of medical devices - Part 12: Sample preparation and reference materials (2019).

14.8 International Organization for Standardization (ISO) 10993-23, Biological evaluation of medical devices - Part 23: Test for irritation (2021).

14.9 SOP GLP-AF-00-09 Laboratory Animal Purchase, Reception, Quarantine, Domestication Procedures and Management

14.10 SOP GLP-AF-00-05Animal Room Environmental Monitoring

14.11 SOP GLP-EQ-20-01Microbalance (PA224)

14.12 SOP GLP-EQ-20-02 Balance (AX5202)

14.13 SOP GLP-EQ-10-01 Biological Safety Cabinet (AC2-4S9-NS)

14.14 SOP GLP-TM-10-04 Irritation Test by Intracutaneous Administration

14.15 SOP GLP-TM-10-03 Test Item Extraction

Appendix1

Reliability Check

The positive control study was finished on Dec. 15, 2023. According to ISO 10993-23 guidelines, positive control shall be performed at least once every six months. Sodium Lauryl Sulfate (SLS) (Sigma, 1614363, Lot No R11250) were used for positive control substances. The method for positive control assay is identical to the method described above in this study.

A 0.2 mL dose of the 0.15% SLS was injected by the intracutaneous route into five separate sites on the right side of the back of each of three animals and duplication. Similarly, the dimethyl sulfoxide (solvent) was injected on the left side of the back of each of animal to serve as the control condition. Observations for erythema and edema were conducted at 24, 48, and 72 hours after injection. Reactions were scored on a 0 to 4 basis. The final 0.15% SLS score were obtained by subtracting the score of the control from the test score.

Scoring system for intracutaneous (intradermal) reaction

反應 (Reaction)	數值分級 (Numerical grading)
紅斑與結痂形成(Erthema and eschar formation)	
無紅斑 (No erythema)	0
輕微紅斑(不易察覺) (Very slight erythema (barely perceptible))	1
易辨識紅斑 (Well-defined erythema)	2
中度紅斑 (Moderate erythema)	3
嚴重紅斑至結痂形成停止紅斑分級 (Severe erythema (beet-redness) to eschar formation preventing grading of erythema)	4
水腫形成 (Oedema formation)	
無水腫 (No oederma)	0
輕微水腫(不易察覺) (Very slight oederma (barely perceptible))	1
易辨識水腫(區域邊緣型態明顯) (Well-defined oederm (edges of area well-define raising))	2
中度水腫(凸起範圍接近 1 毫米) (Moderate oederm (raised approximately 1 mm))	3
嚴重水腫(凸起範圍大於 1 毫米並且擴張出暴露範圍) (Severe erythema (raised more than 1 mm and extending beyond exposure area)	4
刺激反應觀察最大極限值	8

The 0.15% SLS demonstrated a positive response since the difference between the 0.15% SLS overall mean score and control overall mean score was 1.09 and 1.48, respectively.

	動物編號	反應部位 (2)	反應部位 (2)/3 平均	反應部位 (4)	反應部位 (4)/3 平均	反應部位平均 (2-4)	刺激反應 YES/ NO
1 重複	B1	1.33	(1.33+1.80+1.40)/3 =1.51	0.33	(0.33+0.33+0.6)/3 =0.42	1.51-0.42=1.09	YES
	B2	1.80		0.33			
	B3	1.40		0.6			
2 重複	Animal Number	反應部位 (3)	反應部位 (3)/3 平均	反應部位 (5)	反應部位 (5)/3 平均	反應部位平均 (3-5)	刺激反應 YES/ NO
	B1	2.13	(2.13+2.20+1.86)/3 =2.04	0.93	(0.93+0.2+0.6)/3 =0.58	2.06-0.58=1.48	YES
	B2	2.20		0.2			
	B3	1.86		0.6			

Appendix2

試驗物質/對照物質/檢體資料表(英文)
Test Item/ Control Item/ Specimen Information Form (English)

Information marked with "*" will be written in the final report, please fill in carefully.

Test/Control ItemNo.	TW025-23070101-51224010004(1~2) It will be labeled by CBSCMHAC receiving personnel.

Sponsor information			
*SponsorCompanyName	Nanoplus Life Biomedical Technology Co., Ltd.		
*SponsorAddress	9 F., No. 179, Sec. 2, Tiding Blvd., Neihu Dist., Taipei City 114735, Taiwan (R.O.C.)		
*Sponsor's Representative	Ming-Jer Shieh(謝明哲)/ Tzu-Ying Hung(洪慈瑩)		
*Contact Person	Tzu-Ying Hung (洪慈瑩)	Telephone Number	(02)2656-0555
		E-mail	Cecilia@nanoplustech.com
*Test Name	Animal Intracutaneous (Intradermal) Reactivity Test		
*Estimated Transfer Date	02 / 16 /2024(mm/dd/ yyyy)		
Transfer Method	■Personal delivery ☐ Post ☐ By sea/shipping ☐ Others :__		
Transfer Conditions	■ Room Temperature☐Refrigerated ☐Freezing ☐ Dry ice ☐ Liquid Nitrogen☐ Others : _____		

■TEST ITEM/ ☐CONTROL ITEM

Information of Test Item/ Control Item	
* Name ofTestItem/ControlItem	"NoGerm" General Purpose Disinfectant ("諾必淨"一般醫療器材用消毒劑)
* Batch/LotNumber	51224010004
Type	■Medical Devices，Category:Class 1 ■SurfaceDevice ☐ExternalCommunicatingDevice:CirculatingBlood：☐Yes/ ☐No ☐ImplantDevice ☐GasPathways ☐OtherType： ☐Food; ☐Cosmetics Products;☐IndustrialChemicals;☐Pesticide Products; ☐Drug; ☐Others：_____
PackingCondition	☐In Bulk;☐Intact Packing; (■Bottled☐Boxed ☐Tube☐Barrel☐ Bag☐ Others：__)
Amount(Note2)	Test:1 bottles, volume: 4 L; Retention:1bottles, volume: 4 L
Manufacture Date	01 / 31 / 2024(mm/dd/ yyyy)☐No information provided.
Expiry Date(Note3)	01 / 30 / 2027(mm/dd/ yyyy)
* MajorComponents	Electrolyzed water
* Purity/Concentration	Purity:N.A. Concentration: NA

試驗物質/對照物質/檢體資料表(英文)

Test Item/ Control Item/ Specimen Information Form (English)

*Description (Note4)	ExternalFeatures: ☐Regular; ☐Irregular; ■Liquid; ☐Powder; ☐Granule; ☐Flat; ☐Other:_____
	Color: Colorless
	Stability: N.A.
	PH values:N.A.
	Sterilization: Has been Sterilized ■NO☐YES,IfYes, Please Selectthe FollowingMethod ☐EO Sterilization☐Gamma Sterilization☐SteamSterilization☐Other_ Thickness：____mm/pcs or ■NotAvailable. Surface Area：☐_____cm^2/ pcs,☐Double Side☐Single Side☐All Side or ■Not Available. *According to FDA guidance, determine the appropriate amount of test material by using surface area to extractant volume ratios. Mass to extractant volume ratios should only be used if surface area cannot be calculated, or if use of mass will result in a larger sample. In addition, the test will be performed directly with the surface area provided by the sponsor.
* Storage Condition	■RoomTemperature☐2~8℃☐-20±10℃☐-65~-85℃☐Liquid Nitrogen ☐Keep in Dark Place☐Avoid Moisture☐Others：_____
CutorNot(Note5)	☐Yes☐No ■N.A. (Liquid, Gel, Powder)
*Solvent /Solubility	Solvent:N.A.
	Solubility:N.A.
Test Conditions (Dilution)	■No Dilution
	☐Yes,Test final concentration (%):_____;Recommended Solvent:_____
Item Return (Note6)	■No, The remaining materials considered as retention?☐Yes■No ☐N.A. (Processing Method:__Remaining material is processed by CBSCMHAC__)
	☐Yes, only for un-used test item。 Delivery Conditions: ☐Room Temperature☐Refrigerated☐Frozen☐Dry Ice☐ Liquid Nitrogen Recipient:_____, Telephone:_____ Address:_____
Attachment (Note4)	☐Certificate of Analysis☐Material Safety Data Sheet ☐Stability Test Result ☐Product Manual ☐Others：_____■No Attachment
Extraction	Ratio: ☐No Extraction ☐By Surface Area: ☐(3±10%)cm^2/mL ☐(6±10%)cm^2/mL ■By Weight: ☐(0.1±10%)g/mL ■(0.2±10%)g/mL ☐Others:_____ Condition: ☐(37±1)℃(24±2)Hours ■(50±2)℃(72±2)Hours ☐Other：_
Others	

試驗物質/對照物質/檢體資料表(英文)
Test Item/ Control Item/ Specimen Information Form (English)

Precautions

- Note1. All information in the form including the blanks which can't be provided are disclosure and should taken responsibility by the sponsor.
- Note2. If the test follow GLP, should provide extra amount of the test/control item with the same lot for retention. If sponsor doesn't provide the retention of test item/control item, the retention of a reserved test item/control item from each lot/batch of test item /control item is the responsibility of the Sponsor.(Example: 1mg/1 mL* 1 bot or $1x10^6$ cell/1 mL*2 vail)
- Note3. For retention, if the effective period is less than CBSCMHAC SOP definition, the test item/control item will be retained till the expiry date. If the expiry date is longer than CBSCMHAC SOP definition, the test item/control item will be retained for the period of CBSCMHAC SOP definition only. If the expiry date remained incomplete, it mentions that sponsor will agree that test facility will determine the earliest date, e.g. Exp.Date: 2021(YYYY), sponsor didn't identify the MM/DD, the expiration date should be 01/01/2021 (means Jan. 01, 2021)
- Note4. Sponsor should determinate, document and confirm the identity, strength, purity, stability, composition, method of synthesis, fabrication, derivation or other characteristics of the test item/control item before study. If the sponsor cannot provide the information, determination and documentation of the test item/control item are the responsibility of the Sponsor.
- Note5. The test item/control item which has been destroyed or cutting will be discarded after the end of experiment unless applicant/sponsor have extra requirement. If the sponsor does not agree or have special requirements, should take the initiative to inform test facility and state the application prior to test. If related losses incurred because applicant/sponsor didn't inform, we will not be liable.
- Note6. If sponsor wants to return the sample, the retention, inconsistencies and biological safety related issue of test item/control item are the responsibility of the Sponsor.
- Note7. Note 'N/A' or 'N.A'if not applicable. Do not leave blank.
- Note8. Test item and control item should be filled individually in "INFORMATION OF TEST ITEM/CONTROL ITEM".
- Note9. GLP test：(1) Corrections and additions to a final report should be in the form of amendments. Amendments should clearly specify the reason forthe corrections or additions. Lot number, test item photos and raw data cannot be amended by sponsor's requirement. (2)One protocol only can generate one report except for translation version. If the report with more than two languages version, we only issue English version protocol. We only issue amendment or additional language GLP report within three years and non-GLP report within one year. (3)The GLP compliance statement will state that we follow TFDA GLP and TAF OECD GLP norm unless sponsor's requirement. Chang Bing Show Chwan Memorial Hospital Experimental Animal Center (CBSCMHAC) have acquired Good Laboratory Practice Statement of Compliance from TFDA and TAF.
- Note10. Please write down it carefully and in detail. "INFORMATION OF TEST ITEM/CONTROL ITEM" will be placed in the protocol and report along with a copy of this official document. If the information is not clear, we will exclude them from GLP statement.
- Note11. The results shown in this test report refer only to the test item(s) tested.
- Note12. If the sponsor is different from the applicant mentioned in the application form, the sponsor agrees that the study-related information, test/control item and application form provided or reply to CBSCMHAC shall be agreed by the sponsor. The report submitted by SGS is only to the applicant.
- Note13. For commissioned tests under GLP specifications, each batch of test item/control item shall comply with the regulations of the planned regulatory agency (for example: FDA/OECD GLP). The test consignor should attach the relevant certificate of the test item, if it cannot be provided, it will be excluded from the GLP statement.

  CBSCMHAC makers no GLP compliance claim for the following items:

  - 1. Sections 6.2.2, 6.2.3, 6.2.4, 6.2.5 in Taiwan Food and Drug Administration -Good Laboratory Practice for Nonclinical Laboratory Studies and The Organization for Economic Co-operation and Development (OECD)- Principles of Good Laboratory Practice(GLP). Characterization and verification of the test article identity and properties provided from sponsor, which are the responsibility of the sponsor.
  - 2. Sections 6.2.6 in Taiwan Food and Drug Administration -Good Laboratory Practice for Nonclinical Laboratory Studies and The Organization for Economic Co-operation and Development (OECD)- Principles of Good Laboratory Practice (GLP). A sample for analytical purposes from each batch of test item should be retained for all studies except short-term studies. Sponsor is responsible for the retention of samples for storage conditions other than room temperature and 4°C refrigeration.

Sponsor'sRepresentative Signature/Date: 01/22/24

Appendix3

Photograph of the Test Item


Study No.:TW025-23070L01
"NoGerm"General Purpose Disinfectant
TW025-23070L01-51224010004(2)
51224010004
01/30/2027
Retention
"諾必淨"一般醫療器械用消毒劑
"NoGerm" General Purpose Disinfectant
品　　名："諾必淨"一般醫療器械用消毒劑
產品成分：99.99% Electrolized Water (電解離子水)
注意事項：1. 對皮膚安全無刺激性
2. 若不慎接觸眼睛，請用清水沖洗
3. 本產品消毒、殺菌完後會還原成水，
對人體與環境無害
4. 密封儲存於避光處，儲存於常溫中
產品容量：4L
產品效能：消毒、殺菌
製作日期：如標示
保存期限：未拆封有效期三年，開封後請於一年內使用完畢
【醫療器材商名稱】：諾康生醫科技股份有限公司
【醫療器材商地址】：台北市內湖區堤頂大道二段179號9樓
【製造業者名稱】：諾康生醫科技股份有限公司委託
星捷科技股份有限公司製造
【製造業者地址】：桃園市桃園區汴州里春日路1492之5號3樓
、1492之6號3樓及1492號3樓
LOT 51224010004
MFG 20240131
EXP 20270130