## Cantor Research Laboratories, Inc.

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## 50 HUMAN SUBJECT REPEAT INSULT PATCH TEST SKIN IRRITATION/SENSITIZATION EVALUATION (SEMI-OCCLUSIVE PATCH)

Date: February 9, 2007

CR Ref. No.: RIPT.D1222-F1.SO.50.DERM.COLL

Sponsor: Colltech Australia Ltd.

76 Kings Park Rd

West Perth WA 6005 Australia

1.0 Objective:

Consumer products or raw materials designed for consistent

reapplication to areas of the skin may, under proper conditions, prove to be contact sensitizers or irritants in certain individuals. It is the intention of a Repeat Insult Patch Test (RIPT) to provide a basis for evaluation of this irritation/

sensitization potential if such exists.

2.0 Reference: The method is modified to test 50 panelists and not the 200

cited in the reference <u>Appraisal of the Safety of Chemicals in</u> <u>Food, Drugs and Cosmetics</u>, published by The Association

of Food and Drug Officials of The United States. The

method also employs nine inductive patchings and not the

ten cited in the reference under semi-occlusive patch

conditions.

- 3.0 Test Material:
- 3.1 Test Material Description:

On December 22, 2006 two test samples labeled Ovicoll C and Ovicoll Clear were received from Dermatest Pty., Ltd. and assigned CR Lab Nos. D1222-F1 and D1222-F2 respectively.

3.2 Handling: Upon arrival at Cantor Research Laboratories, Inc., the test

material is assigned a unique laboratory code number and entered into a daily log identifying the lot number, sample

description, sponsor, date and test requested.

Samples are retained for a period of three months beyond submission of final reports unless otherwise specified by the

sponsor or, if sample is known to be in support of

governmental applications, representative retained samples are kept two years beyond final report submission.

Sample disposition is conducted in compliance with appropriate federal, state and local ordinances.

### 3.3 Test Material Evaluation Prerequisite:

Prior to induction of a human test panel, animal toxicology, microbiology and other in-vivo or in-vitro performance spectra may be required to assess the feasibility of commencement as dictated by an Institutional Review Board (IRB) described in Section 4.0.

- 3.3.1 Sponsor purports that prior to sample submission to Cantor Research Laboratories, Inc., the following tests were conducted with no adverse results and that the test data are on file on their premises and have not been made available to Cantor Research Laboratories, Inc., personnel:
  - CTFA Preservative Efficacy Test or equivalent
  - 90 Day Accelerated Stability and Container Compatibility Study

#### 4.0 Institutional Review Board:

Reference: CFR Title 21 Part 56, Subparts A, B, C, and D. The IRB of Cantor Research Laboratories, Inc., consists of five or more individuals, chosen from within the company for technical expertise and from the local community for lay interaction. The list of IRB members is kept on file at Cantor Research Laboratories, Inc., and is available for inspection during the hours of operation.

- 5.0 Panel Selection:
- 5.1 Standards for Inclusion in a Study:
  - Individuals who are not currently under a doctor's care.
  - Individuals free of any dermatological or systemic disorder which would interfere with the results, at the discretion of the Investigator.
  - Individuals free of any acute or chronic disease that might interfere with or increase the risk of study participation.
  - Individuals who will complete a preliminary medical history form mandated by Cantor Research Laboratories, Inc., and are in general good health.

- Individuals who will read, understand and sign an informed consent document relating to the specific type of study they are subscribing. Consent forms are kept on file and are available for examination on the premises of Cantor Research Laboratories, Inc., only.
- Individuals able to cooperate with the Investigator and research staff, willing to have test materials applied according to the protocol, and complete the full course of the study.

### 5.2 Standards for Exclusion from a Study:

- Individuals under 18 years of age.
- Individuals who are under doctor's care.
- Individuals who are currently taking any medication (topical or systemic) that may mask or interfere with the test results.
- Subjects with a history of any acute or chronic disease that might interfere with or increase the risk of study participation.
- Individuals diagnosed with chronic skin allergies.
- Female volunteers who indicate that they are pregnant or nursing.

#### 5.3 Recruitment:

Panel selection is accomplished by advertisements in local periodicals, community bulletin boards, phone solicitation, electronic media or any combination thereof.

### 5.4 Informed Consent and Medical History Forms:

An informed consent was obtained from each volunteer prior to initiating the study describing reasons for the study, possible adverse effects, associated risks and potential benefits of the treatment and their limits of liability. Panelists signed and dated the informed consent document to indicate their authorization to proceed and acknowledge their understanding of the contents. Each subject was assigned a permanent identification number and completed an extensive medical history form. These forms along with the signed consent forms, are available for inspection on the premises of Cantor Research Laboratories, Inc., only. Reference 21 CFR Ch. 1 Part 50, Subpart B.

### 6.0 Population Demographics:

Number of subject	cts enrolled	55
Number of subject	ts completing study	54
Age Range		18 – 68
Sex	Male	13
	Female	42
Race	Caucasian	35
	Hispanic	3
	Asian	4
	African American	13

### 7.0 Equipment:

- Patch Description: Parke-Davis Hypoallergenic Readi Bandages (20 x 20 mm Webril affixed to the center of a 40 x 40 mm adhesive bandage) or the equivalent, trimmed at right angles on opposite sides to the opening of the paper backing of patch, allowing air flow.
- 1 ml volumetric syringe without a needle.

#### 8.0 Procedure:

- Subjects are requested to bathe or wash as usual before arrival at the facility.
- Test materials D1222-F1 and D1222-F2 were diluted 1:10 in distilled water. Dilutions were freshly prepared on each application day.
- 0.2 ml or 0.2 g of the diluted test material was dispensed onto a semi-occlusive, hypoallergenic patch.
- The patch was then affixed directly to the skin of the infrascapular regions of the back, to the right or left of the midline and the subject was dismissed with instructions not to wet or expose the test area to direct sunlight.
- After 24 hours the patch was removed by the panelist at home.
- This procedure was repeated until a series of nine consecutive 24 hour exposures have been made for every Monday, Wednesday and Friday for three consecutive weeks.
- In the event of an adverse reaction, the area of erythema and edema is measured. The edema is estimated by the evaluation of the skin with respect to the contour of the unaffected normal skin. Reactions are scored just before applications two through nine and the next test date following application nine. Clients are notified immediately in the case of adverse reaction and determination is made as to treatment program if necessary.
- Subjects were then given a 10 14 day rest period after which a challenge or retest dose was applied once to a

previously unexposed test site. The retest dose is equivalent to any one of the original nine exposures. Reactions are scored 24 and 48 hours after application.

- Comparison was made between the nine sensitizing doses and the retest dose.
- At the end of the study, the consulting Dermatologist reviewed this data and confirmed the stated conclusions.

9.0 Results: Please refer to attached Tables.

10.0 Observations: No adverse reactions of any kind were noted during the

course of this study.

11.0 Archiving: All raw data sheets, technician's notebooks, correspondence

files, and copies of final reports are maintained on premises of Cantor Research Laboratories, Inc., in limited access storage files marked "Archive" for five years after completion

of the study. A duplicate disk copy of final reports is separately archived in a bank safe deposit vault.

12.0 Conclusions: The test materials (CR Lab Nos.: D1222-F1 and D1222-F2;

Client Nos.: Ovicoll C and Ovicoll Clear) when tested under semi-occlusive conditions at 1:10 dilution in distilled water as described herein, may be considered as **NON-PRIMARY IRRITANTS** and **NON-PRIMARY SENSITIZERS** to the skin

according to the reference.

Shyla Cantor, Ph.D.

Study Director

Animesh A. Sinha, M.D., Ph. D.

Dermatologist

Mellodene Charles, A.A.S.

Technician

Christine M. Bremer, B.S.

Technician

Michelle Peters, B.A.

**Quality Assurance Supervisor** 

Date

# TABLE 1 SUMMARY OF RESULTS (SEMI-OCCLUSIVE PATCH)

CR Lab No.: D1222-F1 Client No.: Ovicoll C

Dilution: 1:10 in distilled water

No.	Subject ID	R A	S E	Response									Chall.		
	U	C E	X	1	2	3	4	5	6	7	8	9	24 HR	48 HR	
1 2 3 4 5 6 7 8 9 10 11 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	03-6884 03-7077 03-7121 03-6521 03-6679 03-6037 03-6176 03-6933 03-7127 03-6153 03-6045 03-7148 03-7099 03-6078 03-6077 03-7078 03-6057 03-6057 03-6906 03-6906 03-639 03-674 03-6080 03-7128 03-6065 03-6065 03-6065 03-6518	CCCCCAACCAACCCCACCCHCCCCC	FFMFMFFMFFMFFFFFFMMF	000000000000000000000000000000000000000	000000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00000000000000000000000000000000000000	
29 30 31 32	03-6986 03-6165 03-6052 03-6643	H C A C	F F F	0 0 0	0 0 0 0	0 0 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	

## TABLE 1 (CONT'D) SUMMARY OF RESULTS (SEMI-OCCLUSIVE PATCH)

CR Lab No.: D1222-F1 Client No.: Ovicoll C

Dilution: 1:10 in distilled water

No.	Subject ID	R A	S E	Response									Chall.		
	טו	C E	X	1	2	3	4	5	6	7	8	9	24 HR	48 HR	
33	03-6565	С	F	0	0	0	0	0	0	0	0	0	0	0	
34	03-6509	AA	F	0	0	0	0	0	0	0	0	0	0	0	
35	03-6805	Α	М	0	0	0	0	0	0	0	0	0	0	0	
36	03-7131	С	F	0	0	0	0	0	0	0	0	0	0	0	
37	03-6098	AA	F	0	0	0	0	0	0	0	0	0	0	0	
38	03-6573	AA	M	0	0	0	0	0	0	0	0	0	0	0	
39	03-6997	С	F	0	0	0	0	0	0	0	0	0	0	0	
40	03-6770	С	F	0	0	0	0	0	0	0	0	0	0	0	
41	03-7085	С	F	0	0	0	0	0	0	0	0	0	0	0	
42	03-6003	С	F	0	0	0	0	0	0	0	0	0	0	0	
43	03-6720	AA	F	0	0	0	0	0	0	0	0	0	0	0	
44	03-6500	AA	F	0	0	0	0	0	0	0	0	0	0	0	
45	03-6107	AA	F	0	0	0	0	0	0	0	0	0	0	0	
46	03-6416	AA	F	0	0	0	0	0	0	0	0	0	0	0	
47	03-6923	Н	F	0	0	0	0	0	0	0	0	0	0	0	
48	03-7080	С	F	0	0	0	0	0	0	0	0	0	0	0	
49	03-7079	С	F	0	0	0	0	0	0	0	0	0	0	0	
50	03-6854	AA	М	0	0	0	0	0	0	0	0	0	0	0	
51	03-6919	AA	F	0	0	0	0	0	0	0	0	0	0	0	
52	03-6970	С	М	0	0	0	0	0	0	0	0	0	0	0	
53	03-6076	С	F	0	0	0	0	0	0	0	0	0	0	0	
54	03-6034	С	F	0	0	0	0	0	0	0	0	0	0	0	
55	03-6391	AA	F	0	0	0	0	0	0	0	0	0	0	0	

**Evaluation Period:** 

This study was conducted from January 3, 2007 through February 9, 2007.

## TABLE 2 SUMMARY OF RESULTS (SEMI-OCCLUSIVE PATCH)

CR Lab No.: D1222-F2 Client No.: Ovicoll Clear

Dilution: 1:10 in distilled water

No.	Subject ID	R A	S E	Response									Chall.		
	טו	C E	X	1	2	3	4	5	6	7	8	9	24 HR	48 HR	
1	03-6884	С	F	0	0	0	0	0	0	0	0	0	0	0	
2	03-7077	С	F	0	0	0	0	0	0	0	0	0	0	0	
3	03-7121	С	М	0	0	0	0	0	0	0	0	0	0	0	
4	03-6521	С	F	0	0	0	0	0	0	0	0	0	0	0	
5	03-6679	С	M	0	0	0	0	0	0	0	0	0	0	0	
6	03-6037	С	F	0	0	0	0	0	0	0	0	0	0	0	
7	03-6176	AA	F	0	0	0	0	0	0	0	0	0	0	0	
8	03-6933	AA	М	0	0	0	0	0	0	0	0	0	0	0	
9	03-7127	С	M	0	0	0	0	0	0	0	0	0	0	0	
10	03-6153	C	F	0	0	0	0	0	0	0	0	0	0	0	
11	03-6045	A	М	0	0	0	0	0	0	0	0	0	0	0	
12	03-7148	AA	F	0	0	0	0	0	0	0	0	0	0	0	
13 14	03-7099 03-6078	C C	F	0	0 0	0 0	0 0	0	0	0	0	0	0	0	
15	03-6077	C	M F	0	0	0	0	0 0	0 0	0 0	0 0	0 0	0 0	0	
16	03-0077	C	F	0	0	0	0	0	0	0	0	0	0	0	
17	03-7078	C	F	0	0	0	0	0	0	0	0	0	0	0 0	
18	03-0057	C	М	0	0	0	0	0	0	0	0	0	0	0	
19	03-7001	A	F	0	0	0	0	0	0	0	0	0	0	0	
20	03-6975	Ĉ	F	0	0	0	0	0	0	0	0	0	0	0	
21	03-6906	C	F	0	0	0	0	0	0	0	0	0	0	0	
22	03-6039	C	F	0	0	Dc	Dc								
23	03-6774	H	F	Ö	0	0	0	0	0	0	0	0	0	0	
24	03-7149	C	F	Ō	Ō	0	0	0	0	0	0	0	0	0	
25	03-6080	C	F	0	0	0	0	0	0	0	0	0	0	0	
26	03-7128	C	М	0	0	0	0	0	0	0	0	0	0	0	
27	03-6065	С	М	0	0	0	0	0	0	0	0	0	0	0	
28	03-6518	С	F	0	0	0	0	0	0	0	0	0	0	0	
29	03-6986	Н	F	0	0	0	0	0	0	0	0	0	0	0	
30	03-6165	С	F	0	0	0	0	0	0	0	0	0	0	0	
31	03-6052	Α	F	0	0	0	0	0	0	0	0	0	0	0	
32	03-6643	С	F	0	0	0	0	0	0	0	0	0	0	0	

## TABLE 2 (CONT'D) SUMMARY OF RESULTS (SEMI-OCCLUSIVE PATCH)

CR Lab No.: D1222-F2 Client No.: Ovicoll Clear

Dilution: 1:10 in distilled water

No.	Subject ID	R A	S E	Response									Chall.		
	U	C E	X	1	2	3	4	5	6	7	8	9	24 HR	48 HR	
33 34 35 36	03-6565 03-6509 03-6805 03-7131	C AA A C	F M F	0 0 0											
37 38	03-6098 03-6573	AA AA	F M	0	0	0 0	0	0	0	0	0	0	0	0	
39 40 41	03-6997 03-6770 03-7085	C C C	F F	0 0 0	0										
42 43	03-6003 03-6720	C AA	F F	0	0	0	0	0	0	0	0	0	0	0 0 0	
44 45	03-6500 03-6107	AA AA	F F	0	0	0	0	0	0	0	0	0	0	0	
46 47 48	03-6416 03-6923 03-7080	AA H C	F F F	0 0 0											
49 50	03-7079 03-6854	C AA	F M F	0	0	0	0	0	0	0	0	0	0	0	
51 52 53	03-6919 03-6970 03-6076	AA C C	г М F	0 0 0											
54 55	03-6034 03-6391	C AA	F F	0 0	0 0	0	0	0	0	0	0	0	0	0	

**Evaluation Period:** 

This study was conducted from January 3, 2007 through February 9, 2007.

#### Definition of Symbols Shown In Tables:

- 0 No evidence of any effect
- ? (Barely perceptible) minimal faint (light pink) uniform or spotty erythema
- (Mild) pink uniform erythema covering most of contact site
- 2 (Moderate) pink\red erythema visibly uniform in entire contact area
- 3 (Marked) bright red erythema with accompanying edema, petechiae or papules
- 4 (Severe) deep red erythema with vesiculation or weeping with or without edema
- D Patch eliminated due to reaction
- Dc Discontinued due to absence of subject on application date
- M Patch applied to an adjacent site after strong test reaction
- S Skin stained from pigment in product
- T Tan

#### NOTE:

All technical employees of Cantor Research Laboratories, Inc. are required to take and pass a visual discrimination examination conducted by a Board Certified Ophthalmologist using the Farnsworth-Munsell 100 Hue Test as published; which determines a person's ability to discern color against a black background. This test was additionally modified to include a flesh tone background more nearly approaching actual use conditions, wherein erythematous skin is graded according to intensity.