

Preliminary Report To

E. I. DuPont DeNemours and Company

On

The Contact Sensitization Potential of
Experimental Paints, Samples 1 and 4

Submitted By

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C.A. D'ARONZO, FILE (CLINE)

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LAB. HASKELL LABORATORY

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STUDY SYNOPSIS

OBJECTIVE

To evaluate the contact sensitizing potentialities of two paints.

MATERIALS

The two experimental paints were supplied by the Haskell Laboratories of the E. I. DuPont DeNemours and Company and were identified as follows:

Sample I	Part A	No. 5931
	Part B	No. 5932
	Part C	No. 5933
	Part D	No. 5934

Sample IV	Part A	No. 5940
	Part B	No. 5941
	Part C	No. 5942

SUBJECTS

Twenty-five healthy adult males served as subjects.

METHOD

The experimental paints were mixed according to the protocol directions two hours before application each day.

The experimental paints were applied to one inch square skin sites on the volar forearms of all subjects for a total of fifteen applications on alternate days. A cotton tipped applicator was used to apply the paint. Before each new application the dried paints were removed by peeling. Following a two-week rest period the paints were applied to new skin sites and evaluated twenty-four and forty-eight hours later.

RESULTS

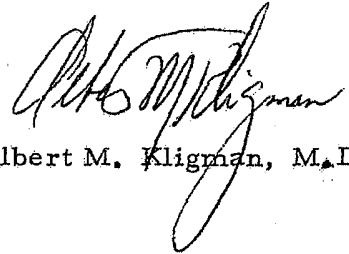
The results are recorded in the accompanying Tables.

No subject presented signs of having become sensitized. During induction some mild irritation was noted, usually erythema and slight glazing. Removing the paint each time may have contributed to this slight non-allergic inflammation. None of the subjects reported any itching, burning or other subjective symptoms associated with contact allergy.

CONCLUSIONS

Neither paint sample No. 1 or 4 induced any cases of contact sensitization. The contact sensitizing capacity of these paints is very low and not likely to be a significant hazard under conditions of actual use.

Respectfully submitted,



Albert M. Kligman, M.D., Ph.D.

E. I. DuPont DeNemours and Company

Experimental Paints Study

SUBJECT DATA

Subject No.	Initials	Age	Weight	Race
1	J. W.	47	172	N
2	J. C.	47	165	N
3	E. B.	40	172	N
4	J. W.	33	162	N
5	S. A.	48	157	N
6	D. McL.	39	170	N
7	R. P.	26	218	N
8	R. S.	26	149	PR
9	R. L.	39	140	N
10	W. S.	40	165	N
11	T. G.	43	171	N
12	T. R.	41	170	N
13	R. J.	32	155	N
14	J. B.	39	155	N
15	M. C.	37	170	N
16	G. J.	29	149	N
17	L. B.	42	160	Afro-B
18	F. P.	29	110	PR
19	M. B.	33	188	W
20	G. McD.	30	208	W
21	W. R.	53	175	W
22	A. B.	52	147	N
23	D. M.	41	144	N
24	B. C.	35	196	N
25	S. W.	33	150	N

TABLE I

PAINT I

A P P L I C A T I O N S

Challenge

Subject No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	24	48
1	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0+	0+	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0+	0+	0+	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0+	0	0
9	Did not complete																
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0+	0	0
12	Did not complete																
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0+	0+	0	0

KEY

Induction:

- 0 - No reaction
 0+ - Faint erythema
 1 - Brisk erythema
 2 - Brisk erythema peeling
 3 - Erosion
 4 - Ulceration

Challenge:

- 0 - No reaction
 1 - Erythema edema
 2 - Erythema edema vesicles
 3 - Erythema edema spreading tiered vesicles
 4 - Tiered weeping vesicles

TABLE I

PAINT I

APPLICATIONS

Challenge

Subject No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 24 48

KEY

Induction:

- 0 - No reaction
 0+ - Faint erythema
 1 - Brisk erythema
 2 - Brisk erythema
 peeling
 3 - Erosion
 4 - Ulceration

Challenge:

- 0 - No reaction
 1 - Erythema edema
 2 - Erythema edema
 vesicles
 3 - Erythema edema
 spreading tiered
 vesicles
 4 - Tiered weeping
 vesicles

14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	1	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0	0
21	Did not complete																
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0+	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0	0
25	Did not complete																

TABLE II.

PAINT 4

APPLICATIONS

Challenge

Subject No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	24	48
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Did not complete																
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Did not complete																
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

KEY

Induction:

- 0 - No reaction
 0+ - Faint erythema
 1 - Brisk erythema
 2 - Brisk erythema
 peeling
 3 - Erosion
 4 - Ulceration

Challenge:

- 0 - No reaction
 1 - Erythema edema
 2 - Erythema edema
 vesicles
 3 - Erythema edema
 spreading tiered
 vesicles
 4 - Tiered weeping
 vesicles

TABLE II
PAINT 4

Subject No.	APPLICATIONS															Challenge	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	24	48
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0+	0	0
16	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0+	0+	0	0
17	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0+	0+	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0	0
19	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0+	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0	0
21	Did not complete																
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0+	0+	0	0
23	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0+	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0+	0+	0+	0+	0	0
25	Did not complete																

KEY

Induction:

- 0 - No reaction
- 0+ - Faint erythema
- 1 - Brisk erythema
- 2 - Brisk erythema
- 3 - peeling
- 3 - Erosion
- 4 - Ulceration

Challenge:

- 0 - No reaction
- 1 - Erythema edema
- 2 - Erythema edema
- 3 - vesicles
- 3 - Erythema edema
- 4 - spreading tiered vesicles
- 4 - Tiered weeping vesicles