

MCA

MANUFACTURING CHEMISTS ASSOCIATION

1825 CONNECTICUT AVENUE, N. W. WASHINGTON, D. C. 20009 (202) 483-6126

August 13, 1976

AUG 16 1976
MEDICAL
DEPARTMENT

TO: Vinyl Chloride Research Coordinators

SUBJECT: Exposure Concentration Data For Long-Term Inhalation
Study

Gentlemen:

The subject information is enclosed for your perusal along with cover letter of August 10 from Dr. Goode. Dr. Torkelson felt this topic should be discussed at the next meeting of this group which is still unscheduled.

Sincerely,

Milton Freifeld
Milton Freifeld
Project Manager
Vinyl Chloride Research

MF:ec
Enclosure

URL 17070

VINYL CHLORIDE RESEARCH COORDINATORS

Dr. Z. G. Bell, Jr.
PPG Industries, Inc.
One Gateway Center
Pittsburgh, Pennsylvania 15222
412-434-2585

Dr. W. D. Harris
UNIROYAL, Inc.
EMIC Building
Naugatuck, Connecticut 06770
203-573-2000, ext. 2139

Dr. M. N. Johnson
The B. F. Goodrich Company
Medical Center
500 South Main Street
Akron, Ohio 44318
216-379-3298

Mr. H. L. Kusnetz
Shell Oil Company
Box 2463
Houston, Texas 77001
713-220-5604

Dr. W. M. Smith
Air Products and Chemicals, Inc.
P. O. Box 538
Allentown, Pennsylvania 18104
215-395-7215

Dr. T. R. Torkelson, Chairman
The Dow Chemical Company
Corporate Medical Department
2030 Dow Center
Midland, Michigan 48640
517-636-5197

Mr. R. N. Wheeler
Union Carbide Corporation
Chemicals & Plastics Division
P. O. Box 8004
South Charleston, West Virginia 25303
304-747-2164

URL 17071

Industrial **BIO-TEST** *Laboratories, Inc.*

DECATUR RESEARCH
1800 EAST PERSHING ROAD
DECATUR, ILLINOIS 62526

TOXICOLOGY
ENVIRONMENTAL SCIENCES
CHEMISTRY
PLANT SCIENCES
MEDICAL SCIENCES

August 10, 1976

AUG 12 1976

AREA CODE 217
TELEPHONE 877-9254

Dr. Milton Freifeld
Project Manager
Manufacturing Chemists Association
1825 Connecticut Avenue, N.W.
Washington, D.C. 20009

Dear Milt:

Enclosed are ten copies of the means for the 261 exposure days of the vinyl chloride study. The averages of these means are:

50.15 ppm for T-I Target 50 ppm
200.10 ppm for T-II Target 200 ppm
2465.71 ppm for T-III Target 2500 ppm
2467.23 ppm for T-IV Target 2500 ppm

T-IV as you will recall, was the group allowed food and bedding during exposure.

The concentration data are also available in the 7th and 18th month status reports on this project.

If I can be of any further service to MCA, please do not hesitate to call me.

Sincerely,

John W. Goode

John W. Goode, Ph.D. *Enc*
Manager,
Decatur Research Laboratories

JWG/dm
enc.

URL 17072

TABLE

TEST MATERIAL: Vinyl Chloride (Ethylene Derived)

Chronic Vapor Inhalation Toxicity Study
In Albino Rats, Albino Mice, and Golden Hamsters

Mean Chamber Concentration Data

Exposure Number	Chamber Concentration (ppm)			
	TE-I	TE-II	TE-III	TE-IV
1	43	173	2510	2355
2	48	181	2548	2467
3	50	207	2098	2261
4	51	87	2540	2293
5	52	218	2202	2330
6	57	194	2401	2329
7	53	199	2475	2675
8	56	164	2555	1915
9	58	242	2283	2192
10	62	186	1770	2481
11	60	202	2510	3236
12	60	156	2653	2733
13	58	207	1972	1664
14	59	162	2544	1794
15	47	160	2556	2545
16	49	211	2391	2612
17	60	219	2922	2531
18	51	201	2356	2777
19	50	214	2690	1969
20	62	242	2488	2510
21	58	219	1561	2488
22	56	265	2567	2105
23	46	220	2659	2295
24	45	106	2855	2441
25	51	212	2496	1655
26	47	203	1899	1799
27	55	225	2337	2998
28	52	184	2587	3356
29	43	209	2474	2686
30	50	209	2141	2756
31	52	180	2659	2891
32	48	177	1920	2564
33	44	215	2190	1920
34	50	200	2002	2379
35	54	217	2377	2213

URL 17073

TABLE continued

TEST MATERIAL: Vinyl Chloride (Ethylene Derived)

Chronic Vapor Inhalation Toxicity Study
In Albino Rats, Albino Mice, and Golden Hamsters

Mean Chamber Concentration Data

Exposure Number	Chamber Concentration (ppm)			
	TE-I	TE-II	TE-III	TE-IV
36	60	171	2083	2692
37	50	190	2451	3307
38	38	198	2225	3688
39	45	193	2208	2638
40	49	278	2018	2525
41	53	128	2686	2310
42	54	219	2579	2616
43	56	238	2835	3203
44	63	211	2344	1752
45	52	195	2640	3149
46	53	199	1968	2281
47	119	298	1659	2569
48	84	255	2910	1754
49	52	206	2498	2573
50	32	105	2348	1612
51*	-	-	-	-
52	48	210	2565	2528
53	49	202	2516	2460
54*	-	-	-	-
55*	-	-	-	-
56	48	196	2445	2525
57	56	347	2141	1576
58	54	243	2404	2231
59	46	218	2333	2306
60	45	240	2229	2388
61	43	191	2077	2306
62	49	210	2380	2725
63	60	185	1659	2457
64	48	211	2246	2506
65	53	214	2394	2428
66	42	172	1963	-
67	48	209	2401	2503
68	42	216	2722	-
69	39	190	2367	2328
70	43	199	2448	2448

* No exposure.

TABLE continued

TEST MATERIAL: Vinyl Chloride (Ethylene Derived)

Chronic Vapor Inhalation Toxicity Study
In Albino Rats, Albino Mice, and Golden Hamsters

Mean Chamber Concentration Data

Exposure Number	Chamber Concentration (ppm)			
	TE-I	TE-II	TE-III	TE-IV
71	29	277	3185	3516
72	36	256	2499	2578
73*	-	-	-	-
74*	-	-	-	-
75	51	203	2585	2470
76*	-	-	-	-
77*	-	-	-	-
78	46	247	2397	2633
79	43	235	2409	2464
80	44	201	1448	2400
81	42	211	2306	-
82*	-	-	-	-
83	47	201	2385	2006
84	47	200	2393	2176
85*	-	-	-	-
86	45	199	2565	2529
87	44	184	2513	2390
88	54	173	2664	1083
89	44	295	3090	2377
90	46	175	2396	2236
91	47	197	2414	-
92	51	200	2191	-
93	50	230	2145	-
94	53	201	2883	2900
95	53	220	2259	2333
96	68	230	2624	2180
97	38	186	2983	3513
98	41	172	2410	2170
99	50	222	2745	2875
100	35	187	2354	2352
101	46	189	2346	2046
102	49	202	3100	2676
103	48	222	2580	2306
104	51	205	2546	2494
105	49	196	2408	2542

* No exposure.

URL 17075

TABLE continued

TEST MATERIAL: Vinyl Chloride (Ethylene Derived)

Chronic Vapor Inhalation Toxicity Study
In Albino Rats, Albino Mice, and Golden Hamsters

Mean Chamber Concentration Data

Exposure Number	Chamber Concentration (ppm)			
	TE-I	TE-II	TE-III	TE-IV
106	30	193	2393	2245
107	50	220	2614	1946
108	49	200	2566	2534
109	44	193	2349	2529
110	59	198	2497	2357
111	52	216	2683	2700
112	50	198	2573	2706
113	54	222	2519	2467
114	58	200	2392	2502
115	54	195	2538	2408
116	57	203	2592	2642
117	46	202	2535	2360
118	49	197	2922	2455
119	50	184	2428	2361
120	53	187	2529	2428
121	48	213	2543	2564
122	49	192	2461	2355
123	48	197	2708	2347
124	38	198	2488	2640
125	49	197	2505	2543
126	54	211	2787	3080
127	53	195	2739	2551
128	48	195	2512	2644
129	53	210	2671	2657
130	50	198	2467	2500
131*	-	-	-	-
132	53	196	2452	2453
133	52	206	2551	2434
134	50	209	2419	2480
135	51	194	2515	2472
136	48	201	2575	2753
137	48	202	2512	2445
138	50	197	2462	2440
139	49	187	2424	2343
140	54	205	2537	2590

* No exposure.

URL 17076

TABLE continued

TEST MATERIAL: Vinyl Chloride (Ethylene Derived)

Chronic Vapor Inhalation Toxicity Study
In Albino Rats, Albino Mice, and Golden Hamsters

Mean Chamber Concentration Data

Exposure Number	Chamber Concentration (ppm)			
	TE-I	TE-II	TE-III	TE-IV
141	45	196	2535	2391
142	57	177	2594	2440
143*	-	-	-	-
144	49	223	2561	2480
145	48	197	2500	2551
146	51	218	2552	2352
147	47	207	2541	2523
148	49	223	2613	2352
149	52	193	2444	2524
150	51	200	2627	2654
151	47	189	2413	2441
152	48	194	2583	2435
153	48	197	2467	2409
154	52	206	2459	2493
155*	-	-	-	-
156	47	202	2554	2231
157	50	184	2457	2294
158	45	192	2240	2760
159	49	134	2540	2600
160	45	196	2687	2264
161	53	179	2384	2664
162	58	181	2484	2456
163	52	195	2580	2815
164	52	187	2488	2669
165	49	200	2583	2755
166	52	201	2520	2353
167	48	199	2479	2667
168	49	193	2472	2545
169	48	207	2932	2729
170	54	205	2528	2668
171	49	191	2487	2488
172	49	209	2478	2339
173	50	197	2468	2532
174	48	194	2367	2512
175	51	199	2487	2496

* No exposure.

UPL 17077

TABLE continued

TEST MATERIAL: Vinyl Chloride (Ethylene Derived)

Chronic Vapor Inhalation Toxicity Study
In Albino Rats, Albino Mice, and Golden Hamsters

Mean Chamber Concentration Data

Exposure Number	Chamber Concentration (ppm)			
	TE-I	TE-II	TE-III	TE-IV
176	49	198	2534	2536
177	51	-	2618	2673
178	51	203	2573	2640
179	49	201	2645	**
180*	-	-	-	-
181	51	204	2347	2347
182	50	193	2396	2464
183	57	171	2364	2580
184	51	203	2501	2355
185	48	199	2328	2380
186	49	209	2397	2392
187	50	202	2537	2545
188	47	205	2400	2524
189*	-	-	-	-
190	48	198	2431	**
191	50	196	2350	2272
192	51	200	2452	2400
193	51	215	2633	2540
194	50	204	2447	2270
195	47	200	2439	2408
196	48	202	2377	2440
197	50	198	2386	2440
198	49	199	2457	2564
199	50	201	2585	2656
200	48	200	2473	2672
201	48	204	2515	2600
202	48	202	2459	2413
203	50	206	2550	2640
204	53	194	2620	2478
205	50	199	2504	2397
206*	-	-	-	-
207	49	200	2593	2528
208	46	209	2482	2424
209	49	203	2521	2516
210*	-	-	-	-

* No exposure.

** No sample.

JPL 17078

TABLE continued

TEST MATERIAL: Vinyl Chloride (Ethylene Derived)

Chronic Vapor Inhalation Toxicity Study
In Albino Rats, Albino Mice, and Golden Hamsters

Mean Chamber Concentration Data

Exposure Number	Chamber Concentration (ppm)			
	TE-I	TE-II	TE-III	TE-IV
211	48	207	2577	2428
212	49	205	2613	2585
213*	-	-	-	-
214*	-	-	-	-
215*	-	-	-	-
216*	-	-	-	-
217*	-	-	-	-
218	48	218	2288	2480
219	49	204	2565	2445
220	42	203	2481	2440
221	46	185	2258	2410
222	51	193	2380	2364
223	51	184	2280*	2440*
224	43	160	1920	2800
225	44	174	2073	2680
226	54	208	2473	2480
227	51	205	2558	*
228	49	192	2022	2400
229	49	201	2542	2640
230	52	210	2699	2460
231	55	208	2475	2333
232	51	204	2405	2348
233	50	196	2597	2370
234	54	202	2576	2576
235	-	-	-	-
236	58	202	2540	**
237	56	191	2376	**
238	56	208	2300	2420
239	51	202	2556	2084
240	43	168	2481	2584
241	46	184	2685	-
242	50	190	2366	2380
243	49	203	2607	2413
244	51	199	2420	2428
245	51	203	2638	2536

* No exposure.

** No sample.

TABLE continued

TEST MATERIAL: Vinyl Chloride (Ethylene Derived)

Chronic Vapor Inhalation Toxicity Study
In Albino Rats, Albino Mice, and Golden Hamsters

Mean Chamber Concentration Data

Exposure Number	Chamber Concentration (ppm)			
	TE-I	TE-II	TE-III	TE-IV
246	48	195	2458	2467
247	50	203	2525	2436
248	50	200	2528	2435
249	51	197	2422	2375
250	-	213	2800	2240
251	40	228	2783	2176
252	44	219	2680	2395
253	59	207	2490	2372
254	59	199	2635	2447
255*	-	-	-	-
256	44	225	2654	2460
257	56	206	2487	2350
258	51	202	2602	2512
259	50	206	2480	2440
260	47	204	2597	2730
261	52	197	2718	2484

* No exposure.