

per cent DCB in propylene glycol was applied to the penile mucosa. The rabbits were observed hourly during the first day and every 24 hours thereafter for 14 days. Throughout the entire course no visible sign of irritation was observed in either the eye or on the penile mucosa.

Chronic Toxicity.—The effects of prolonged oral ingestion of DCB were determined in albino weanling rats by the drug-diet method previously described.¹ Female rats weighing 48 to 55 Gm. each at the start of the feeding experiment were used. Rats in groups of five each were fed the basic diet previously described, with DCB added in the following percentage concentrations: 0.01, 0.02, 0.04, 0.08, 0.16, 0.32, 0.64 and 1.28. One group of five rats as a control was fed the basic diet alone, containing no DCB. Food and water were allowed ad libitum. At weekly intervals all rats were weighed, and the food consumed by each group of rats was recorded. All rats except those on a higher dosage level were fed their respective diets for approximately 215 days. The group of rats given 0.16 per

Mean Body Weights and Food Consumption of Male Rats on Diets Containing 1,3-Dimethyl-4,6-bis(Chloromethyl)Benzene (DCB) for Approximately 215 Days

Dosage, %	Rats		Average Weight, Gm.			e	t	Food Consumption Gm./Rat/Day
	Start	End	Start	End	Increase			
Control	5	5	52.2	215.8	163.6	7.90		11.1
0.01	5	5	49.0	214.6	165.6	6.42	0.196	11.0
0.02	5	5	48.2	217.4	169.2	9.87	0.443	11.4
0.04	5	5	47.4	229.2	181.8	13.20	1.18	11.2
0.08	5	5	48.8	218.8	170.0	2.74	0.765	11.2
0.16	5	5	49.6	218.4	168.8	6.76	0.500	11.3
0.32	5	4	54.8	210.0	155.0	3.49	0.996	10.4

$$e = \text{Standard error of the mean} \sqrt{\frac{\sum d^2}{n(n-1)}}$$

$$t = \frac{M_1 - M_2}{\sqrt{(e_1)^2 + (e_2)^2}} \quad \text{where } M_1 \text{ is the mean of the control set of observations and } M_2 \text{ the mean of any other set. } e_1 \text{ and } e_2 \text{ are the standard errors of } M_1 \text{ and } M_2 \text{ respectively. Values of 3 or greater are considered significant.}$$

cent DCB in their diet was continued for 409 days. At the end of the feeding period all surviving rats were killed and examined for any gross changes; sections of organs were removed, fixed in solution of formaldehyde U. S. P. diluted 1:10 and saved for histopathological examination.

During the course of the feeding experiment symptoms of toxicity were not observed in any rats except those on 0.64 and 1.28 per cent DCB. In these two groups of rats the only symptoms observed were those due to inanition. In the group receiving 0.64 per cent DCB in the diet all rats had died within 27 days. The food consumption of these rats was about 2 Gm./rat/day. In the group fed 1.28 per cent DCB in the diet all had died within 13 days. The food consumption of these rats was about the same as that of the previous group.

The chart shows growth curves for rats fed the basic diet plus 0.16 and 0.32 per cent DCB and for rats on the basic diet alone. Since growth curves for rats fed diets containing smaller amounts of DCB were similar to those given, they are not included in the figure. In the table data are given on the mean weight of rats on each dietary intake of DCB at the start of the feeding experiments and after approximately 215 days, when weekly food consumption and weight of rats