# ACUTE INHALATION TOXICITY TEST

Material (a) Mica Control (b) Carbon-coated Mica Flake Pigment Haskell No. (a) 2840 (b) 2864 MR 582

Department Pigment Dept. No. (a) Concord 200/325 Mica 1680-54 (b) 63 Composite Book Inhal. #1 Page 14

Prop.*

Species albino chk-CD ♂ rats Exposed to dust (state) in 8 liter bell jar (chamber and capacity)

Technique:

Wright dust feed mechanism was used.

| Haskell No. | Date Exp. 1961 | Exposure Conditions: Time Exp. | Air L/min | Nominal Conc. mg/l | Mortality Ratio | Animal Data: Animal No. | Weight Init | Low | Final | Results | TS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2840 | 4-17 | 4 | 10 | 24.4 | 0/4 | 46516 | 279 | 475 | 336 | | ✓ |
| | | | | | | 46517 | 300 | 296 | 346 | | ✓ |
| | | | | | | 46524 | 275 | 275 | 350 | Sac. 5-2-61 | ✓ |
| | | | | | | 46525 | 281 | 278 | 355 | (14 days after exp) | ✓ |
| 2864 | 4-18 | 4 | 10 | 22.3 | 0/4 | 46559 | 280 | 253 | 361 | | ✓ |
| | | | | | | 46569 | 279 | 271 | 372 | | ✓ |
| | | | | | | 46584 | 285 | 264 | 366 | | ✓ |
| | | | | | | 46586 | 281 | 265 | 371 | | ✓ |

ALC (a) > 24.4 mg/l (b) > 22.3 mg/l Date 6-8-61 T.I. CCH

Remarks:

*Include such properties as pH, v.p., b.p., color, sol., if known.

N37281

## Clinical Signs of Toxicity & Gross Pathology

H#2840 24.4 mg/l 4-17-61

9:46 start exp., Rats: discomfort
9:50 Irregular respiration.
10:30 Two gasping
11:00 Seems O.K now ( no resp. impairments )
11:45 stop exp. to refill compound into container.
12:10 Start exp. again. No respiratory impairments.
1:00 animals O.K.
2:11 End exp. animals O.K.
Aftr exp: Normal until sacrifice.

Gross Path.: #46516, #46524, #46544 : irregular congestion of lungs
#46517 : Not abnormality attributable to the exp.

H 2864 22.3 mg/l 4-18-61

11:00 Start exp.
11:10 Discomfort, respiratory impairment ( First 10 min., very concentrated heavy dust came out. It ~~was~~ might be because of loose packing on top of container)
11:30 Animals seem O.K.
1:05 Stop exp. to refill container
1:38 Start again
3:33 End exp.
Animals: rapid respiration, Hair & Tails: Black

1st day: #46584: noisy resp., others: O.K.
2nd day: #46586 sl. noisy resp., others: O.K.
3rd day to 14th day: O.K.

Gross Path.: #46559 & #46569 : moderate irregular congestion in lungs
#46584 & #46586 : moderate regional atelectasis in lungs.

### Summary

In each case the rate of administration of the material has been the highest which can be achieved using the "Wright Dust-feed mechanism". These rates represent a major dust storm, and by approximate calculation from the given characteristics of the flakes, are equivalent to about 3000 million portion per cubic foot or of the order of 100 times the presently accepted MAC for mica.

At the end of exposure, all rats appeared normal although dusty. There was no interference with body weight gain. ~~It is possible~~ Necropsy findings indicated that carbon coated mica might have a significantly greater effect than the uncoated mica control, as judged by the relative increase in lung weight. [illegible]

N37281.01
DUP050041407