

DATA REVIEW FOR ACUTE INHALATION TOXICITY TESTING (870.1300)

Product Manager: 22
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Reviewer: Eugenia McAndrew
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Study No.: 8138

Testing Facility: Product Safety Labs
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Quality Assurance (40 CFR §160.12): Included

Test Material: GX-612/Equus DF; Lot #427-37; 85.94% Chlorothalonil; tan powder ground in a ball mill for 24 hours

Species: Rat; albino, Sprague-Dawley derived
Age: Young adult
Weight (fasted): Males: 204-242 g; Females: 181-215 g
Source: Ace Animals, Inc., Boyertown, PA

Conclusion:

1. **LC₅₀ (mg/L):**
Males: > 0.056 mg/L
Females: > 0.056 mg/L
Combined: > 0.056 mg/L
2. **The estimated LC₅₀ is** > 0.056 mg/L
3. **Tox. Category: II** **Classification: Acceptable**

Procedure (Deviations from 870.1300): None

Exposure Concentration mg/L (Gravimetrically Determined)	Number of Deaths/Number Tested		
	Males	Females	Combined
0.056	0/5	1/5	1/10
0.52	5/5	5/5	10/10
2.02	5/5	5/5	10/10

Clinical Observations: One female died on day 1 at the 0.056 mg/L exposure. Two males died during the 0.52 mg/L exposure; the remaining eight died within three days of exposure. Four animals died during the 2.02 mg/L exposure; the remaining six died within 2 hours of removal from the chamber. The following in-chamber observations were noted at all three exposure concentrations: ocular and nasal discharge, irregular respiration, dyspnea, hunched posture, and hypoactivity. All rats exhibited similar clinical signs upon removal from the chambers. At 0.056 mg/L, rales, piloerection, and reduced fecal volume were also observed but all surviving rats recovered by day 3 and gained weight. At 0.52 mg/L, one female was prone and had a reduced fecal volume. At 2.02 mg/L, the rats developed facial and ventral staining, rales and/or prone posture post-exposure.

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Necropsy Findings: All rats that died during the study revealed discoloration of the lungs and edema of the lungs. At 0.056 mg/L, discoloration of the liver and rigor mortis were also present. No gross abnormalities were noted in the surviving rats. At 0.52 mg/L, discoloration of the liver and gastrointestinal tract, excess mucous in the trachea, gaseous distention of the GI tract and rigor mortis were also observed. At 2.02 mg/L, discoloration of the intestines and excess mucous in the trachea were observed.

Chamber Atmosphere		
Gravimetric conc. mg/L	MMAD μm	GSD
0.056	2.6	1.73
0.52	1.76	1.75
2.02	3.2	1.74

Chamber Environment ^a	
Chamber Volume	100 L
Airflow	50.6 LPM
Temperature	21-23°C
Relative Humidity	46-62%

^aWhole body