

Acute Inhalation Toxicity

Barium carbonate

Methods

To confirm acute inhalation toxicity, 3 male and 3 female rats per concentration were exposed to barium carbonate at concentrations 1 and 5 mg/L for 4 hours in nose-only chamber. It was measured the concentration of barium carbonate, particle size distribution and the chamber environment during the exposure time. Clinical signs and body weight changes were recorded for 14 days after the end of the exposure, and gross findings were observed after necropsy.

Results

The mean concentration of barium carbonate for was 0.991 ± 0.034 and 4.978 ± 0.085 mg/L during the exposure time. The aerosol mass median aerodynamic diameter (MMAD) was 3.076 and 4.255 μm , and the geometric standard deviation (GSD) was 1.6 and 2.0. No dead animals were observed in all test groups exposed to barium carbonate.



Conclusion

GHS Classification - Acute toxicity (inhalation - dusts and mists) :
Unclassified ($\text{LC}_{50} > 5.0$ mg/L)

Laboratory



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