

[REDACTED]

E. I. du Pont de Nemours and Company
Haskell Laboratory for Toxicology and Industrial Medicine

HASKELL LABORATORY REPORT NO. 323-70 [REDACTED]

Material Tested: [REDACTED]

Haskell No.: 6338

Material Submitted by: [REDACTED]

Organic Chemicals Department,
Jackson Laboratory

Other Codes: [REDACTED]

ACUTE INHALATION TOXICITY

Procedure: For each exposure, six Chr-CD male rats, weighing 250 to 280 grams, were exposed to the test material in a 16-liter bell jar for four hours unless all died sooner. In order to generate a uniform aerosol, the test material and a coupon of 1020 steel was heated to 130°C (maximum temperature used in storage) and sprayed via compressed air into the exposure chamber through a stainless steel pneumatic spray nozzle with an outside temperature of 150°C. Chamber atmosphere concentrations of the test material were determined periodically by filtering a known volume of the atmosphere through a filter paper of 0.1μ pore size and determining the weight increase of the paper and by a gas chromatographic method. The particle size distribution measurements were made with a cascade impactor. Gross and histopathologic examinations were performed on two rats dying during an exposure and two rats surviving 14 days post-exposure. The other survivors were sacrificed 14 days post-exposure.

Results:

Exp. No.	Anal. Conc. (mg/L)	Particle Mass Median Diameter (μ) and Dispersion (σ) [‡]	Mortality Ratio	Clinical Signs	
				During Exposure	Post-Exposure
1	1.8	-	0/6	Irregular respiration, red ears	Initial weight loss followed by normal weight gain
2	4.1	3.8 & 2.4	1/6	Irregular respiration, paleness; one out of six rats had convulsions, death after second hour	10-14% initial weight loss, one rat lost 20% of initial body weight by second day; normal weight gain followed
3	>7	-	6/6	Irregular respiration, pale ears, one rat had convulsions, deaths occurred between 2½ and 3½ hours of exposure	

The generated aerosol formed a paste-like material on the walls of the bell jar and made it difficult to observe the rats.

Company Sanitized. Does not contain TSCA CBI

Pathology: Two rats that died during exposure to greater than 7 mg/L of the test material had acute pulmonary hemorrhage and edema.

Two rats, sacrificed 14 days post-exposure to 1.8 mg/L, had lymphoid hyperplasia of the spleen, edema, and tracheitis; one rat also had a focal area of hemorrhage in one lobe of lung.

Summary: The Approximate Lethal Concentration (ALC) of [REDACTED] is 4.1 mg/L for a four-hour inhalation exposure. Histopathologic results showed acute pulmonary edema and hemorrhage.

The LC₅₀ for [REDACTED] is 0.43 mg/L (Haskell No. 5904, [REDACTED]) and the ALC for [REDACTED] is 1.08 mg/L (Haskell No. 6047, [REDACTED]) for four-hour rat exposures. [REDACTED] is therefore less toxic than either Haskell Nos. 5904 or 6047 under the test conditions.

† Tissues examined include: lung, trachea, kidney, liver, spleen, brain, adrenal, testes, stomach, heart, eye, ear, thymus, duodenum, and bone marrow.

‡ Geometric Standard Deviation.

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